Foundational Laboratory Analysis Seminar Notes 2021

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DC, DCBCN, DABCI, CCN

Session 1: Anemia

*** PLEASE MAKE SURE THAT YOU SIGN IN AND OUT BOTH SATURDAY AND SUNDAY TO ENSURE YOU RECEIVE CREDIT HOURS***

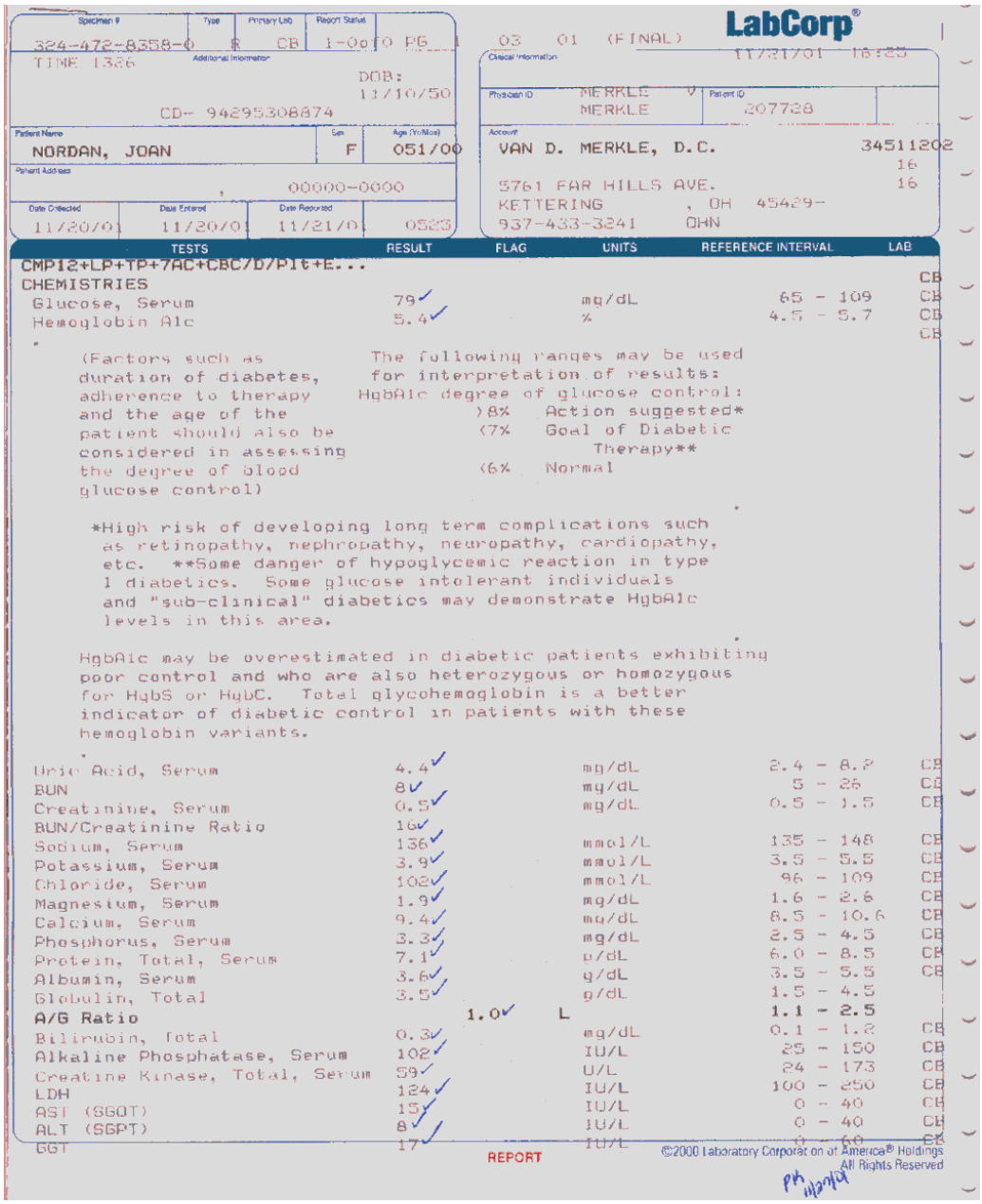
"This is a true joy in life, the being used for a purpose recognized by yourself as a mighty one; the being a force of nature instead of a feverish selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy. I want to be thoroughly used up when I die, for the harder I work the more I live. I rejoice in life for its own sake. Life is no "brief candle" to me. It is a sort of splendid torch which I have got hold of for the moment, and I want to make it burn as brightly as possible before handing it on to the future generations." – George Bernard Shaw

- **Our Mission**
  - To help people reach their optimum health so that they can in turn reach their fullest potential in life.
- **How would you like to practice?**
  - DDN 9-6-2004 interview of a local MD
  - "Because of the HMO Contracts, on average, you may not even get 50 cents to the dollar that's charged."
  - "Due to the fact that we sold our practice (to the hospital), I'm no longer my own boss. I'm an employee. I get a paycheck. And I've got to see a certain number of patients and produce certain amounts of revenue."
- **Medicare payments can be reduced up to 8%**
  - HHS Secretary, Sylvia Mathews Burwell, announced a goal of tying 85% of traditional Medicare Payments to quality or value by 2016 and to 90% by 2017. The Value-Based Modifier (VBM) program is one of the major strategies for achieving that goal. But do you know that the VBM program can result in payment cuts of up to 4% in 2016 – cuts that are in addition to a possible 4% reduction from other Medicare Quality Programs such as PQRS and Meaningful Use?
- **Improved Practice Health**
  - In 1998, $654 Million Spent on Disc Degeneration
  - In 1997, Americans paid $21.2 Billion for Alternative Health Care with at least **half** being out of pocket expense
  - **10% of people see a chiropractor**
  - "Chiropractic practices are shutting down at a higher rate than chiropractors graduating from colleges and experts tell us that every year it is becoming increasingly difficult to get new patients." Chester A. Wilk DC, November 2004 newsletter
  - **80% of people take vitamins**
- **Will your job exist in 2025, and beyond? Only time will tell. You must decide how you will respond and then live with the consequences of those decisions.**
  - Four responses to a disruptive world
    - Hope your career comes to a close before the disruption takes root and you go the way of travel agents. (there are virtually no Travel Agents anymore)
    - Change careers to escape the path of the coming tsunami. Young people today are expected to have seven careers, but many of us find that prospect wearying rather than invigorating.
    - Change with the disruption either incrementally as required or by getting out in front of the changes and becoming a disrupter.
    - Continue on your current path, believing there will always be a place for some blacksmiths shoeing horses.
  - Humanity will always need a way to build and preserve wealth, to educate and train, to impart faith, and to care for the needs of the body. What each field looks like in 20 years is unknown. What is certain is that each of those fields will be further disrupted by technology and evolving cultural forces.
  - Will your job exist in 2025, and beyond? Only time will tell. You must decide how you will respond and then live with the consequences of those decisions.
- **Just a regular patient - Kevin**
  - Male; 36 years old; 188 pounds
  - High cholesterol - 454 (up and down for four years)
  - Triglycerides - Over 800
  - MD prescribed cholesterol medication
  - No medications to date of testing
  - Craves sugar, sodas, chocolate, no diabetes in family history
  - Decreased sexual function
  - Under care of a DC for injured neck

- Energy is mediocre
- Increased panic, anxiety and malaise
- Drinks 2-3 cans of Caffeine-Free Cokes a day

- **What would you do now?**
  - The other DC was no good, he needs your special 'adjustment'
  - "Not my problem, I only adjust subluxations. Let him take the cholesterol drug"
  - Have him fill out a questionnaire to determine what special vitamin he needs
  - Give him the vitamin company "special cholesterol lowering vitamin formula"
  - Try out the NEW Cholesterol lowering vitamin of the month
  - Test him: muscle test, energy test, etc.
  - Laboratory tests? Which ones?
  - **Check his insurance?**

- **Labcorp Results Form**



LabCorp®

Specimen # 324-472-8358-0 | Type R | Primary Lab CB | Report Status 1-0of0 PG 1 | 03 01 (FINAL)

TIME 1326 | DOB: 11/10/50 | CD- 94295308874

Patient Name: NORDAN, JOAN | Sex: F | Age (Yr/Mos): 051/00

Patient Address: , 00000-0000

Date Collected: 11/20/01 | Date Entered: 11/20/01 | Date Reported: 11/21/01 0523

Clinical Information | 11/21/01 16:25

Physician ID: MERKLE V MERKLE | Patient ID: 207728

Account: VAN D. MERKLE, D.C. 34511202 16 16

5761 FAR HILLS AVE.
KETTERING , OH 45429-
937-433-3241 OHN

TESTS	RESULT	FLAG	UNITS	REFERENCE INTERVAL	LAB
CMP12+LP+TP+7AC+CBC/D/Plt+E...					CB
CHEMISTRIES					CB
Glucose, Serum	79		mg/dL	65 - 109	CB
Hemoglobin A1c	5.4		%	4.5 - 5.7	CB

(Factors such as duration of diabetes, adherence to therapy and the age of the patient should also be considered in assessing the degree of blood glucose control)

The following ranges may be used for interpretation of results:
HgbA1c degree of glucose control:
>8% Action suggested*
<7% Goal of Diabetic Therapy**
<6% Normal

*High risk of developing long term complications such as retinopathy, nephropathy, neuropathy, cardiopathy, etc. **Some danger of hypoglycemic reaction in type 1 diabetics. Some glucose intolerant individuals and "sub-clinical" diabetics may demonstrate HgbA1c levels in this area.

HgbA1c may be overestimated in diabetic patients exhibiting poor control and who are also heterozygous or homozygous for HgbS or HgbC. Total glycohemoglobin is a better indicator of diabetic control in patients with these hemoglobin variants.

Uric Acid, Serum	4.4		mg/dL	2.4 - 8.2	CB
BUN	8		mg/dL	5 - 26	CB
Creatinine, Serum	0.5		mg/dL	0.5 - 1.5	CB
BUN/Creatinine Ratio	16				
Sodium, Serum	136		mmol/L	135 - 148	CB
Potassium, Serum	3.9		mmol/L	3.5 - 5.5	CB
Chloride, Serum	102		mmol/L	96 - 109	CB
Magnesium, Serum	1.9		mg/dL	1.6 - 2.6	CB
Calcium, Serum	9.4		mg/dL	8.5 - 10.6	CB
Phosphorus, Serum	3.3		mg/dL	2.5 - 4.5	CB
Protein, Total, Serum	7.1		g/dL	6.0 - 8.5	CB
Albumin, Serum	3.6		g/dL	3.5 - 5.5	CB
Globulin, Total	3.5		g/dL	1.5 - 4.5	
A/G Ratio	1.0	L		1.1 - 2.5	
Bilirubin, Total	0.3		mg/dL	0.1 - 1.2	CB
Alkaline Phosphatase, Serum	102		IU/L	25 - 150	CB
Creatine Kinase, Total, Serum	59		U/L	24 - 173	CB
LDH	124		IU/L	100 - 250	CB
AST (SGOT)	15		IU/L	0 - 40	CB
ALT (SGPT)	8		IU/L	0 - 40	CB
GGT	17		IU/L	0 - 60	CB

REPORT

PH 11/27/01

Name:	Kevin H
Gender:	Male
Age:	36
Weight:	188
Blood Type:	A
Test #:	1

Legend: Warning | High Risk | Critical | ★ Opt

Test Description	Current Rating 07/31/2000	
Glucose	111.00	High
Hemoglobin A1C (Gly-Hgh)	5.10	★
Uric Acid	6.50	high
BUN (Blood Urea Nitrogen)	15.00	★
Creatinine	1.30	High
BUN / Creatinine Ratio	11.00	low
Sodium	141.00	★
Potassium	4.80	high
Chloride	103.00	★
Magnesium	2.30	★
Calcium	9.70	★
Phosphorus	2.90	low
Calcium/Albumin Ratio	2.20	★
Total Protein	7.30	★
Albumin	4.40	★
Globulin	2.90	★
A/G Ratio	1.50	★
Total Bilirubin	0.50	★
Alkaline Phosphatase 25-150	81.00	★
Creatine Kinase	1,780.00	Very High
LDH	215.00	high
SGOT (AST)	69.00	High
SGPT (ALT)	50.00	High
GGT	32.00	★
Serum Iron	52.00	low
Ferritin	148.00	★
Total Cholesterol	440.00	Very High
Triglyceride	1,450.00	Very High
HDL Cholesterol	38.00	low
Total Cholesterol / HDL Ratio	11.50	Very High
T4 Thyroxine	5.60	low
T3 Uptake	40.00	High
T7 Free Thyroxine Index (FTI)	2.20	low
CRP C-Reactive Protein	2.80	high
White Blood Count	6.90	★
Red Blood Count	4.56	★
Hemoglobin	15.20	high
Hematocrit	44.10	★
MCV	97.00	high
MCH	33.30	high
MCHC	34.40	high
Platelets	237.00	★
Polys/Neutrophils (SEGS-PMNS)	70.00	high
Lymphocytes	23.00	low
Monocytes	6.00	★
Eosinophils	1.00	★
Basophils	0.00	★
ESR-Erythrocyte Sed Rate, Westergren	26.00	High

Name: **Kevin H** Gender: **Male** Age: **36** Weight: **188** Blood Type: **A** Test #: **1**

Legend: Warning | High Risk | Critical | ★ Opt

Test Description	Current Rating 07/31/2000	
Glucose	111.00	High
SGOT (AST)	69.00	High
SGPT (ALT)	50.00	High
GGT	32.00	*
Serum Iron	52.00	low
Ferritin	148.00	*
Total Cholesterol	440.00	Very High
Triglyceride	1450.00	Very High
Total Cholesterol / HDL Ratio	11.50	Very High
Creatine Kinase	1780.00	Very High
ESR-Erythrocyte Sed Rate, Westergren	26.00	High

Test #2 with comparison to #1

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improven

Test Description	Current Rating 09/28/2000		Prior 07/31/2000	Delta
Glucose	98.00	high	111.00	☺
Hemoglobin A1C (Gly-Hgh)	5.20	★	5.10	
Uric Acid	4.90	★	6.50	☺
BUN (Blood Urea Nitrogen)	18.00	★	15.00	
Creatinine	1.40	High	1.30	☹
BUN / Creatinine Ratio	12.00	low	11.00	☺
Sodium	141.00	★	141.00	
Potassium	4.40	★	4.80	☺
Chloride	103.00	★	103.00	
Magnesium	2.60	high	2.30	☹
Calcium	9.50	low	9.70	☹
Phosphorus	3.40	low	2.90	☺
Calcium/Albumin Ratio	1.98	Low	2.20	☹
Total Protein	7.60	★	7.30	
Albumin	4.80	high	4.40	☹
Globulin	2.80	low	2.90	☹
A/G Ratio	1.70	high	1.50	☹
Total Bilirubin	1.20	high	0.50	☹
Alkaline Phosphatase 25-150	67.00	★	81.00	
Creatine Kinase	282.00	High	1,780.00	☺
LDH	175.00	high	215.00	☺
SGOT (AST)	32.00	high	69.00	☺
SGPT (ALT)	36.00	high	50.00	☺
GGT	19.00	low	32.00	☹
Serum Iron	77.00	low	52.00	☺
Ferritin	165.00	★	148.00	
Total Cholesterol	204.00	High	440.00	☺
Triglyceride	168.00	High	1,450.00	☺
HDL Cholesterol	43.00	★	38.00	☺
VLDL Cholesterol	33.00	high		
LDL Cholesterol	127.00	High		
Total Cholesterol / HDL Ratio	4.70	high	11.50	☺
T4 Thyroxine	7.60	★	5.60	☺
T3 Uptake	35.00	high	40.00	☺
T7 Free Thyroxine Index (FTI)	2.60	low	2.20	☺
CRP C-Reactive Protein	1.40	★	2.80	☺
White Blood Count	5.40	★	6.90	
Red Blood Count	4.73	★	4.56	
Hemoglobin	15.40	high	15.20	☹
Hematocrit	45.70	★	44.10	
MCV	97.00	high	97.00	Ø
MCH	32.70	high	33.30	☺
MCHC	33.80	★	34.40	☺
Platelets	255.00	high	237.00	☹
Polys/Neutrophils (SEGS-PMNS)	53.00	low	70.00	☺
Lymphocytes	35.00	★	23.00	☺
Monocytes	9.00	high	6.00	☹
Eosinophils	2.00	★	1.00	
Basophils	1.00	★	0.00	
ESR-Erythrocyte Sed Rate, Westergren	21.00	High	26.00	☺

Legend: Warning | High Risk | Critical | ★ Optimal | Improven

Test Description	Current Rating 09/28/2000		Prior 07/31/2000	Delta
Glucose	98.00	high	111.00	
SGOT (AST)	32.00	high	69.00	
SGPT (ALT)	36.00	high	50.00	
Total Cholesterol	204.00	High	440.00	
Triglyceride	168.00	High	1450.00	
Total Cholesterol / HDL Ratio	4.70	high	11.50	
Creatine Kinase	282.00	High	1780.00	
ESR-Erythrocyte Sed Rate, Westergren	21.00	High	26.00	

- What would have been the probable outcome with cholesterol lowering drugs?
- Medication: crises management- did MD do his job?
- How much liver function can be left and have no symptoms?
- Essential vs. Non-Essential
- Adjustments, therapy, lasers, decompression etc.
- A/A, PI, Insurance

Kevin's Vitamin Recommendations and follow the low carb diabetic diet

Personal Vitamin and Supplement Program For:
Kevin H.

2 Month Supply

	Vitamin or Supplement	Dosage Per Day	AM	NOON	PM	BED	Bottles	Quantity		Price	Extended Price
1	B6 (Neuro-K-500)	500 mg.	1				1	100	@	$20.05	$20.05
2	Beta Carotene	25000 I.U.	1				1	250	@	$19.70	$19.70
3	Calcium MCHC	750 mg.	1	1	1		1	250	@	$30.30	$30.30
4	Chlorella Plus	500 mg.	1		1		2	90	@	$14.55	$29.10
5	Chromium Picol. - JR	200 mcg.	1				1	100	@	$7.60	$7.60
6	Desiccated Liver	3000 mg.	1		1		1	250	@	$12.20	$12.20
7	Energenics	4	2		2		1	270	@	$34.50	$34.50
8	Germanium	150 mg.	1				2	30	@	$41.60	$83.20
9	Magnesium Glycinate	400 mg.	2		2		1	240	@	$31.00	$31.00
10	MLK 1000 [EPA/DHA]	2000 mg.				2	2	100	@	$12.80	$25.60
11	Niacinamide	1000 mg.	1		1		2	100	@	$7.30	$14.60
12	Pantothenic Acid	250 mg.	1				1	100	@	$11.85	$11.85
13	Ultra Preventive III (Multiple)	2	1		1		1	180	@	$24.30	$24.30
14	Lauricidin		See Instructions Below				1	72	@	$35.75	$35.75
15	Vitamin D [5000 IU]		See Instructions Below				1	250	@	$6.45	$6.45

Specialty / Instructions
LAURICIDIN- Take 1.5 tsp per day

VITAMIN D- Take 1 every other day

Sub Total	$386.20
Tax	$27.03
Total	$415.17

Kevin - EKG 1 and EKG 2

KH Age: 48 7/28/00 3:25pm

Vent. Rate		87 bpm
PR	int.	180 ms
QRS	dur.	84 ms
QT/QTc	int.	336/381
P/QRS/T	axis	229/ 42/ 27
RV5/ SV1	amp	1.960/ 0.800 mV

ANALYSIS RESULT
Atrial rhythm
With occasional ectopic premature complexes
Nonspecific Twave abnormality
Nonspecific Twave abnormality
Possible left atria enlargement
** Abnormal rhythm ECG ***
ARTIFACT PRESENT

07/28/2000

Vent. Rate		75 bpm
PR	int.	160 ms
QRS	dur.	96 ms
QT/QTc	int.	352/380 ms
P/QRS/T	axis	75/ 58/ 45
RV5/ SV1	amp.	1.810/ 0.920 mV

ANALYSIS RESULT
Sinus rhythm
** normal ECG **
ARTIFACT PRESENT

POST
09/28/2000

REFERENCE MATERIALS

- Laboratory Test Handbook 4th edition
- Text Book of Medical Physiology 5th edition Guyton
- The Merck Manual 15th edition
- Nutritional Influences on Illness 2nd edition Werbach
- Interpretation of Diagnostic Tests 6th edition Wallach
- A Textbook of Pathology 8th edition Lea & Febiger
- PDR for Herbal Medicines 2nd edition
- Dr. Cessna's Internal Diagnosis Courses and material
- PDR 55th (electronic) edition 2001
- PDR 56th edition 2002
- PDR Medical Dictionary 2nd edition
- Drug-Induced Nutrient Depletion Handbook 2nd edition Ross Pelton
- The Doctors' Vitamin and Mineral Encyclopedia Sheldon Saul Hendler, M.D., Ph.D
- Hepatitis A to G, Alan Berkman, MD and Nicholas Bakalar
- PDR for Nonprescription Drugs and Dietary Supplements 23rd edition 2002

SUGGESTED REFERENCE MATERIAL IN GETTING STARTED WITH LABORATORY DIAGNOSTICS

- Laboratory Test Handbook
  - Mosby's Manual of Diagnostic and Laboratory Tests
  - www.Labcorp.com
- Advanced Nutrition and Metabolism, Gropper, et.al.
- Medical Dictionary
  - MedLine Plus: http://www.nlm.nih.gov/medlineplus/mplusdictionary.html
  - Merck Manual
  - Book or Internet: http://www.merck.com/mmpe/index.html
  - PDR
  - Book or www.pdr.net
  - ICDA Code Book
  - Book or http://icd9cm.chrisendres.com/index.php

- **April 2007, Breast Cancer was diagnosed in a 48 year old female.**
  - Complete case study available at www.ScienceBasedNutrition.com
  - MP3 radio show available at www.Take2Healthcare.com
- CA 27.29 for the patient below with Breast Cancer
- 05-04-2007 185 Medical clinical range is 0-38.60.
- 05-18-2007 140 2 weeks on her nutritional program
- 06-07-2007 78.80 4 weeks on her nutritional program
- 08-03-2007 35.50 All without any medical drugs, chemo, radiation or hormone therapy.

- 08-17-2007 29.70 **Total Cost: Out of Pocket to date was $3,000.00**
  (HOW MANY ADJUSTMENTS, THERAPY ETC. WOULD IT TAKE FOR YOU TO MAKE $3,000.00?

- 3-3-2018 22.20
- 9-5-2018 20.90 Still no hormones, chemo or radiation!
- 3-23-2019 32.30 Note: July 2018 a small aneurysm in the brain was found and causing mini seizures. Started Amlodipine/Valsartan and CBD for seizures and Lisinopril for hypertension.
- 5-11-2019 26.40 after modified diet and vitamins !!!!!!!
- Biopsy/surgery was immediately recommended but she came to me before the first biopsy/surgery.
- 5-4-2007 CA27.29 was 185, this level of CA 27.29 indicates that the cancer has already metastasized, (she started on her complete program after the blood and hair and DMSA urinary challenge tests were done).
- 5-11-2007 CA 27.29 reduced to 140 (this was before ANY medical intervention- no surgery/biopsy, chemo, radiation or hormone therapy).
- 5-24-2007 Patient had lumpectomy and 3 out of three lymph nodes were positive, (I was pretty sure that would be). Radiation was immediately recommended daily for 6 weeks followed with chemo and was told that she would probably have 8-10 years to live, which the oncologist thought was pretty good, (she didn't think that was such a great deal for a 48 y/o).
- This is far less than the CoPay of conventional cancer treatment for Chemo and/or radiation.

48 year old female; CA 27.29 185.70; Chol 238; HDL 102; LDL 191; CK, LDH, CRP are a little high

Test Description	Date:	05/04/2007		03/06/2002	Delta
Glucose		100.00	HI	79.00	☹
Hemoglobin A1C (Gly-Hgh)		5.80	hi	5.30	☹
Uric Acid		4.40	Opt	4.60	
BUN (Blood Urea Nitrogen)		11.00	lo	14.00	☹
Creatinine		0.70	Opt	0.70	
BUN / Creatinine Ratio		16.00	Opt	20.00	☺
Sodium		140.00	lo	137.00	☺
Potassium		4.30	Opt	4.50	
Chloride		101.00	Opt	102.00	
Magnesium		2.40	Opt	2.00	☺
Calcium		10.10	Opt	9.80	
Phosphorus		3.40	lo	4.30	☺
Calcium/Albumin Ratio		2.15	Opt	2.33	
Total Protein		7.70	hi	7.30	☹
Albumin		4.70	hi	4.20	☹
Globulin		3.00	Opt	3.10	
A/G Ratio		1.60	Opt	1.30	
Total Bilirubin		0.40	Opt	0.40	
Alkaline Phosphatase 25-150		72.00	Opt	67.00	
Creatine Kinase		146.00	hi	79.00	☹
LDH		180.00	hi	162.00	☹
SGOT (AST) (AST)		27.00	hi	23.00	☹
SGPT (ALT) (ALT)		18.00	Opt	19.00	
GGT		35.00	Opt	20.00	
Serum Iron		105.00	Opt	128.00	☺
Ferritin		77.00	Opt	68.00	
Total Cholesterol		238.00	HI	206.00	☹
Triglyceride		83.00	Opt	145.00	☺
HDL Cholesterol		102.00	HI	98.00	☹
VLDL Cholesterol		17.00	Opt	29.00	☺
LDL Cholesterol		119.00	HI	79.00	☹
Total Cholesterol / HDL Ratio		2.30	Opt	2.10	
Triglyceride/HDL Ratio		0.81	lo		
T4 Thyroxine		8.40	Opt	6.90	☺
T3 Uptake		30.00	Opt	28.00	☺
T7 Free Thyroxine Index (FTI)		2.50	lo	1.90	☺
White Blood Count		4.90	lo	4.10	☺
Red Blood Count		4.47	lo	4.60	☹
Hemoglobin		12.90	lo	13.00	☹
Hematocrit		37.70	lo	38.90	☹
MCV		84.00	lo	85.00	☹
MCH		28.80	Opt	28.30	
MCHC		34.10	Opt	33.50	
Platelets		297.00	hi	224.00	☹
Polys/Neutrophils (SEGS-PMNS)		60.00	Opt	64.00	
Lymphocytes		31.00	Opt	29.00	
Monocytes		7.00	Opt	6.00	
Eosinophils		2.00	Opt	1.00	
Basophils		0.00	Opt	0.00	
ESR-Erythrocyte Sed Rate, Westergr		2.00	Opt	2.00	
CRP C-Reactive Protein		4.30	hi	2.90	☹
CA 27.29		185.70	HI		

Test Description	Current Rating 06/03/2008	
Toxic Elements		
Aluminum	28.00	Very High
Antimony	0.01	★
Arsenic	0.07	high
Barium	3.70	High
Beryllium	0.01	★
Bismuth	0.33	★
Cadmium	0.09	Very High
Lead	0.20	★
Mercury	0.19	★
Platinum	0.01	High
Thallium	0.00	★
Thorium	0.00	★
Uranium	0.01	★
Nickel	0.18	★
Silver	0.06	high
Tin	0.07	★
Titanium	1.50	High
Total Toxic Representation	3.00	High
Essential Elements		
Calcium	1210.00	high
Magnesium	290.00	High
Sodium	570.00	High
Potassium	230.00	Very High
Copper	7.20	Very Low
Zinc	130.00	Low
Manganese	0.13	Low
Chromium	0.33	Low
Vanadium	0.01	Low
Molybdenum	0.07	★
Boron	6.10	High

Test Description Date:	Current Result 05/18/2007	Current Rating	Prior Result 05/12/2007
Agent	DMSA		Pre-Chall
Dose	1000 mg		
Interval	6		6
Toxic Elements			
Aluminum (UA)	0.00	Opt	53.00
Antimony (UA)	0.00	Opt	0.20
Arsenic (UA)	34.00	Opt	42.00
Beryllium (UA)	0.00	Opt	0.00
Bismuth (UA)	0.00	Opt	0.00
Cadmium (UA)	0.80	Opt	0.40
Lead (UA)	62.00	HI	1.10
Mercury (UA)	9.70	HI	1.80
Nickel (UA)	1.00	Opt	7.70
Platinum (UA)	0.00	Opt	0.00
Thallium (UA)	0.20	Opt	0.08
Thorium (UA)	0.00	Opt	0.00
Tin (UA)	3.30	Opt	0.00
Tungsten (UA)	0.00	Opt	0.00
Uranium (UA)	0.00	Opt	0.00

- **Objective?**
  - The "Finger
  - The"Wave"
  - The"Vitamin Test"
  - Diagnosing "Coronary Blockage"
  - Evidenced Based Results
  - Objective accepted documentation
  - Research and Grants
- **Diagnosis/Treatment and Liability/Malpractice**
  - Diagnosis: to diagnose or identify something-Exam, x-ray, questionnaire, energy techniques, muscle testing
    - = Legal obligation
  - Treatment: adjustment, therapy, vitamins, energy technique, verbal recommendations
    - = legal responsible and liability
  - If you treat something…you are legally responsible/liable

"Thank you for changing my life!"

- From: Danny Miller

Dr. Merkle, Sent: Thursday, July 30, 2015 2:32 PM

First I want to say thank you for changing my life! I became a member of SBN in May 2015, mostly because I was living in chronic pain for 7 years (my wife and I spoke with you briefly at the SBN member seminar the end of June). After testing myself I realized my stomach was a mess, creating inflammation that presented as severe neck pain. In 2 months I am now off Percocet, Valium and Norco!! Watching my own chronic pain lessen I have begun testing my patients. I am so excited to bring SBN to all of my patients!

Sincerely,

Dr. Daniel Miller

- **Dr. Van D. Merkle:**
  Credentials
  - Graduated 1982 Logan College of Chiropractic
  - Doctor of Chiropractic
  - Diplomate American Board of Chiropractic Internists
  - Diplomate American Chiropractic Board of Nutrition
  - Diplomate Chiropractic Board of Clinical Nutrition
  - Vice President of Chiropractic Board of Clinical Nutrition
  - Certified Clinical Nutritionist
  - American Chiropractic Association
  - Ohio State Chiropractic Association

- **Dr. Van D. Merkle Experience**
  - 34+ Years Chiropractic Practice
  - 30+ Years Nutrition Practice
  - 22+ Years Live Call-in Radio Talk Show Host
  - *Back to Health, Your Guide to Better Living* (WHIO)
  - www.NewsTalkRadioWHIO.com to listen live
  - Saturday 11am-noon EST
  - 17 Years Monthly Radio Guest Nutrition Expert
  - *Nutrition Action* (WDAO)
  - Conference Speaker
  - Local Seminars
  - Newsletters

- **Objective Hematology**
  - Benefits of Blood Testing
    - Confidence in confronting difficult cases, diseases and conditions
    - Objective proof of results
  - Risks of Not Blood Testing
    - Missed Disease
    - Missed Diagnosis
    - Malpractice / Liability
    - Missed opportunities to really save or change someone's life

Calculating the Healthy Range

- Calculating the middle 33% Healthy Range
- You have a Clinical Range of 10-50.
- To calculate, you take 50 minus 10 = 40.
- 40 times 33%= 13.2
- Add 13.2 to 10 = 23.2 then subtract 13.2 from 50= 36.8.
- This gives a healthy range from 23.2-36.8, which is the middle 33% of the clinical range (10-50), which leaves 33% from 10-23.2 and 33% from 36.8-50.
- **The key point about the healthy range: The purpose is to optimize these sub-healthy ranges to avoid disease, and to restore other clinical ranges and sub-healthy ranges to the optimum levels.**

How hard is SBN to do? SBN member for 4 years recently stated at the Denver lecture on 02/26/2011:

- "SBN is very easy to use, the patients understand it and know the value of blood work and pay cash for it. The problems… well, I'm working harder, getting great results and making more money… I'm also scheduled 2 months out for new nutrition patients and I don't even advertise outside of my office."

From Staff members Subject: Final Thoughts

- Donna Rxxxxx – 27417
- Fredia Bxxxx – 28310
- Carolyn Fxxxxxx – 26529
- Stephen Sxxxx – 28427
- Mark Jxxxxxxxx – 27816
- Jean Exxxxxxx – 28630
- Judy Wxxxx – 100000834
- Patsy Hxxxxx – 25656
- David Pxxxxxx– 20506
- Dave Kxxxxxxx – 28010
- Theresa Cxxx – 21960
- Matthew Lxxxx– 100000855
- Christine Dxxxxxxxx - 21919

Supplement use up to 69% of US Adults – CRN Survey March 14, 2012

- CRN- Council for Responsible Nutrition
- 74%** of women take supplements
- 84%** of adults are confident in the safety, quality and effectiveness of supplements
- 22%** take vitamin D and C
- 71%** take multiple vitamin
- **All Time Highs!!!**

Naturopathic doctors focus of latest scope-of-practice debate: Working to get prescription rights.

- Out of all of the strategies proposed to help ease the United States primary care shortage, expanding the scope of practice may be the most contentious. The latest chapter in the debate surrounds proposed legislation to allow naturopathic doctors (ND) to prescribe some medications and perform minor procedures in California, MedPage Today reported.
- Currently 16 states plus the District of Columbia and Puerto Rico license NDs for medical practice. "In these states, NDs practice as independent primary care general practitioners, with the ability to diagnose and treat medical conditions, perform physical exams and order laboratory testing," according to the California Naturopathic Doctors Association (CNDA) website.
- Since California began licensing NDs in 2003, it has required that the practitioners be under the supervision of a physician when writing prescriptions. That restriction "was put in place as a temporary measure to allow a regulatory subcommittee to determine what the independent formulary for naturopathic doctors should be," the CNDA told MedPage Today.
- A proposed update headed to the state assembly for consideration would expand the types of imaging an ND can order; allow NDs to perform procedures, such as removal of warts and skin tags from parts of the body other than the face; and prescribe/change dosage of level IV and V medications without supervision.
- While the bill passed the state's senates and has garnered support from some practicing physicians, the Medical Board of California has expressed opposition and gave MedPage Today a copy of a letter executive director Kimberly Kirchmeyer wrote to Democratic state Sen. Marty Block, the bill's sponsor. "Although NDs may be well qualified to practice naturopathic medicine that utilizes natural medicine and treatments in a natural approach, NDs do not receive the education and training in naturopathic education programs to safely perform minor procedures and prescribe without physician supervision," she wrote.

Physical Therapists are learning HVLA thrust manipulation – Dynamic Chiropractic March 2012

- By Warren Hammer, MS, DC, DABCO
- Soon, physical therapists (PTs) will all graduate as doctors of physical therapy (DPTs). The American Physical Therapy Association's vision stance is: "By 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy… consumers have direct access for the diagnosis of, interventions for…health."[1]
- **The PT profession should be commended for continually seeking to improve itself.**

I predict that within 10 years: Doctors of PT will have limited prescription rights just like optometrists and podiatrists got a few years ago.

If This Does Not Scare You.... What Will It Take?

- Kinetacore PT Seminars: It only requires two days to be fully state board certified and earn a diploma to perform "osteopractic"/chiropractic HVLA manipulation.
- Seminar Description SMT-1: High-Velocity Low-Amplitude Thrust Manipulation of the Cervical, Thoracic, Lumbar & SI Joints
- MANUAL THERAPY is the ART and SCIENCE of ELIMINATING PAIN and RESTORING FUNCTION
  How long will it take until the public associates adjusting with PT's? A year? 5 years?
  Or worse yet, LMT's. ?
  Don't blame me when this profession fails, especially if you have written any checks to any association that does not actively support total expanded rights.....

April 20, 2015

Hello FCPA(A),

I would like to inform you that in the province of Alberta Canada where I practice, our provincial association is just in the process of applying for expanded scope of practice which will include the RX of drugs applicable to our practice...likely pain meds, muscle relaxants and the such. So we are moving in that direction. Hope you find this informative.

Dr. Dave Stannard, DC

TEST DESCRIPTION	OLD				NEW		
Glucose	65.00	-	110.00		65.00	-	99.00**
Hemoglobin A1C (Gly-Hgh)	3.40	-	6.10		4.80	-	5.90
Uric Acid	2.50	-	8.00		2.40	-	8.20
Blood Urea Nitrogen (BUN)	10.00	-	20.00		5.00	-	26.00
Creatinine	0.50	-	1.50		0.50	-	1.50
BUN / Creatinine Ratio	7.50	-	18.50		8.00	-	27.00
Sodium	138.00	-	146.00		135.00	-	145.00
Potassium	3.50	-	5.50		3.50	-	5.20
Chloride	96.00	-	110.00		97.00	-	109.00
Magnesium	1.70	-	2.40		1.60	-	2.60

TEST DESCRIPTION	OLD				NEW		
Calcium	8.60	-	10.70		8.50	-	10.60
Phosphorus	2.40	-	4.60		2.50	-	4.50
Calcium / Albumin Ratio	2.03	-	2.71		2.03	-	2.71
Total Protein	6.00	-	8.00		6.00	-	8.50
Albumin	3.50	-	5.00		3.50	-	5.50
Globulin	1.90	-	3.70		1.50	-	4.50
A/G Ratio	1.10	-	2.30		1.10	-	2.50
Total Bilirubin	0.10	-	1.20		0.10	-	1.20
Alkaline Phosphatase	41.00	-	138.00		25.00	-	150.00
LDH	100.00	-	225.00		100.00	-	224.00

TEST DESCRIPTION	OLD				NEW		
SGOT (AST)	0.00	-	40.00		0.00	-	40.00
SGPT (ALT)	0.00	-	47.00		0.00	-	40.00
GGT	5.00	-	65.00		0.00	-	65.00
Serum Iron	50.00	-	180.00		35.00	-	155.00
Ferritin	10.00	-	291.00		10.00	-	322.00
Cholesterol	140.00	-	200.00		100.00	-	169.00
Triglyceride	10.00	-	195.00		0.00		149.00
HDL Cholesterol	35.00	-	55.00		40.00	-	59.00
LDL Cholesterol	65.00	-	130.00		0.00	-	99.00
VLDL Cholesterol	5.00	-	40.00		5.00	-	40.00

TEST DESCRIPTION	OLD				NEW		
Total Cholesterol / HDL Ratio	0.00	-	5.00		0.00	-	4.40
T4	5.50	-	13.00		4.50	-	12.00
T3 Uptake	32.00	-	43.00		24.00	-	39.00
T3 Total	83.00	-	200.00		71.00	-	180.00
T7	2.10	-	4.70		1.20	-	4.90
White Blood Count	4.80	-	10.80		4.00	-	10.50
Red Blood Count	3.80	-	5.50		3.77	-	5.28
Hemoglobin	12.00	-	16.00		11.50	-	15.00
Hematocrit	37.00	-	47.00		34.00	-	44.00
MCV	82.00	-	99.00		80.00	-	98.00
MCH	27.50	-	32.50		27.00	-	34.00

TEST DESCRIPTION	OLD				NEW		
MCHC	32.00	-	36.00		32.00	-	36.00
Platelets	150.00	-	450.00		140.00	-	415.00
Polys (SEGS-PMNS)	50.00	-	70.00		40.00	-	74.00
Lymphocytes	20.00	-	40.00		14.00	-	46.00
Monocytes	1.00	-	8.50		4.00	-	13.00
Eosinophils	1.00	-	5.00		-0.02	-	7.00
Basophils	0.00	-	1.00		-0.02	-	3.00
Erythrocyte Sed Rate (ESR)	0.00	-	9.00		-0.02	-	30.00
CRP (C-Reactive Protein)	0.00	-	4.90		-0.02	-	4.90
Creatine Kinase	26.00	-	174.00		24.00	-	173.00
Testosterone Free + Total (males >18)	348.00		1197.00		264.00		916.00
CEA -tumor marker	0.00		3.00		0.00		**4.70**
CEA- Smokers							5.60

The healthy ranges have not changed, even though clinical ranges have.

J.W. Same test results 2 different ranges - Notice the color differences
You have to pay more attention to the "yellow"

Test Description Date:	Current Result 12/10/2001	Current Rating	Current Result 12/10/2001	Current Rating
Glucose	81.00	lo	81.00	Opt
Hemoglobin A1C (Gly-Hgh)	4.50	Opt	4.50	LO
Uric Acid	6.40	hi	6.40	hi
BUN (Blood Urea Nitrogen)	22.00	HI	22.00	hi
Creatinine	1.00	hi	1.00	hi
BUN / Creatinine Ratio	16.00	Opt	16.00	Opt
Sodium	140.00	lo	140.00	lo
Potassium	4.50	Opt	4.50	Opt
Chloride	102.00	Opt	102.00	Opt
Magnesium	2.20	lo	2.20	lo
Calcium	10.20	hi	10.20	hi
Phosphorus	3.30	lo	3.30	lo
Total Protein	7.30	Opt	7.30	Opt
Albumin	7.30	HI	4.60	hi
Globulin	2.70	lo	2.70	lo
A/G Ratio	1.70	hi	1.70	hi
Total Bilirubin	2.30	HI	2.30	HI
Alkaline Phosphatase 41-138	39.00	LO	88.00	Opt
LDH	182.00	hi	182.00	hi
SGOT (AST)	22.00	Opt	22.00	Opt
SGPT (ALT)	19.00	Opt	19.00	Opt
GGT	14.00	Opt	14.00	Opt
Serum Iron	169.00	hi	169.00	HI
Ferritin	222.00	hi	222.00	hi
Cholesterol	158.00	Opt	158.00	Opt
Triglyceride	145.00	hi	145.00	hi
HDL Cholesterol	38.00	lo	38.00	LO
LDL Cholesterol	91.00	Opt	29.00	hi
VLDL Cholesterol	29.00	hi	91.00	hi
Total Cholesterol / HDL Ratio	4.10	hi	4.10	hi
T4 Thyroxine	6.10	lo	6.10	lo
T3 Uptake	28.00	LO	28.00	lo
T7 Free Thyroxine Index (FTI)	1.70	LO	1.70	lo
White Blood Count	4.50	LO	4.50	lo
Red Blood Count	4.00	LO	4.00	lo
Hemoglobin	17.00	HI	17.00	HI
Hematocrit	47.30	HI	47.30	hi
MCV	91.00	Opt	91.00	Opt
MCH	32.70	HI	32.70	hi
MCHC	35.90	hi	35.90	hi
Platelets	420.00	hi	420.00	HI
Polys (SEGS-PMNS)	71.00	HI	71.00	hi
Lymphocytes	42.00	HI	42.00	hi
Monocytes	13.00	hi	13.10	HI
Eosinophils	1.00	LO	1.00	Opt
Basophils	1.00	hi	1.00	hi
ESR (Erythrocyte Sed Rate)	14.00	HI	14.00	hi
CRP C-Reactive Protein	0.40	hi	0.40	hi

- **The Trust: Last Best Hope - Cystic Fibrosis Case**
  - You are the patient's Last Best Hope
  - Everyone before you has failed.
  - Where everyone else has failed… you will succeed because...
  - You will:
    - Never give up.
    - Study the problem and test more when needed.
    - Give honest hope and encouragement.
    - Be Patient...

Hierarchy of needs where are people more likely to spend precious limited dollars?

- Manicure/Pedicure
- Chiropractic Treatment for Headache/LBP
- Wellness Care
- Massage
- Avoid drugs
- Hypertension, high cholesterol
- Diabetes
- Lupus, MS, etc
- Cancer

My case load for January of 2009 I am their Last Best Hope.

- 3 new patients: Breast cancer
- 2 new patients: Prostate Cancer
- 1 new patient: ovarian cancer
- 2 new patients : lymphoma
- 1 new patient: COPD
- 1 new patient: liver cancer
- 2 new patients: Parkinson's
- 3 new patients: Diabetes type 2
- 2 new patients: diabetes type 1
- 1 np ADD/ADHD
- 1 NP : cystic acne
- 1 new patient with advanced kidney disease
- Several with high cholesterol, high blood pressure and depression and most on drugs
- Other cases include: 3 Alzheimer's, 1 kidney cancer, 2 MS, 1 Rh, 2 Headaches, 2 Osteopetrosis, 3 osteoporosis, 2 hepatitis, CFS several arsenic, lead, uranium, copper toxicity.

Add another service to improve outcomes with your current patients

- Open to alternative care.
- Willing to spend money for these problems. Why not have them spend it in your office?
- Trust you for chiropractic, they will more than likely trust you for this or at least be willing to give it a try.

Why not start with your patients?

- To Patients:
  - Would you like to get healthier?
  - Where will you be in 5 years if you don't make some changes?

What we hope to provide you with is a system of analysis … Not a cure for a disease.

Benefits of a "<u>System of Analysis</u>"

- Don't need the new vitamin of the month
- Don't have to know every new health fad but you can test it.

- **The Secret**
  - You don't have to know <u>everything about every disease</u>.
  - You don't have to know <u>the biochemistry of how it all works and why it isn't working</u>. (Many time the 'experts' are baffled, too)
  - **All that we have to do is:**
    - Test
    - Know what the tests mean
    - Improve what we see in the testing
    - Retest to chart progress

- We aren't going to treat the patient's disease whatever it is.
- But we can probably help the problems we see in the testing.
- And when these problems (anemia, thyroid/liver/GI dysfunction, mineral/vitamin deficiency, infections/inflammations, toxicity etc.) improve the patient will more than likely get healthier!! THEN…….

- The symptoms of their disease will improve.
- Remember: We are looking for Progress... not Perfection!

Experts: Disease vs Health

- Your patients may have been all over the country seeing the best and smartest 'Disease Experts' without success.
- Becoming the 'Health Expert' in your community is the best way you can help your patients.

Two Aspects of SBN Treatments

- 1st is Foundational:
  - Regardless of symptoms, fix what you find on the complete testing
- 2nd is Symptom or Disease Focus:
  - Special nutrients and diets specific to the primary problem, condition or disease

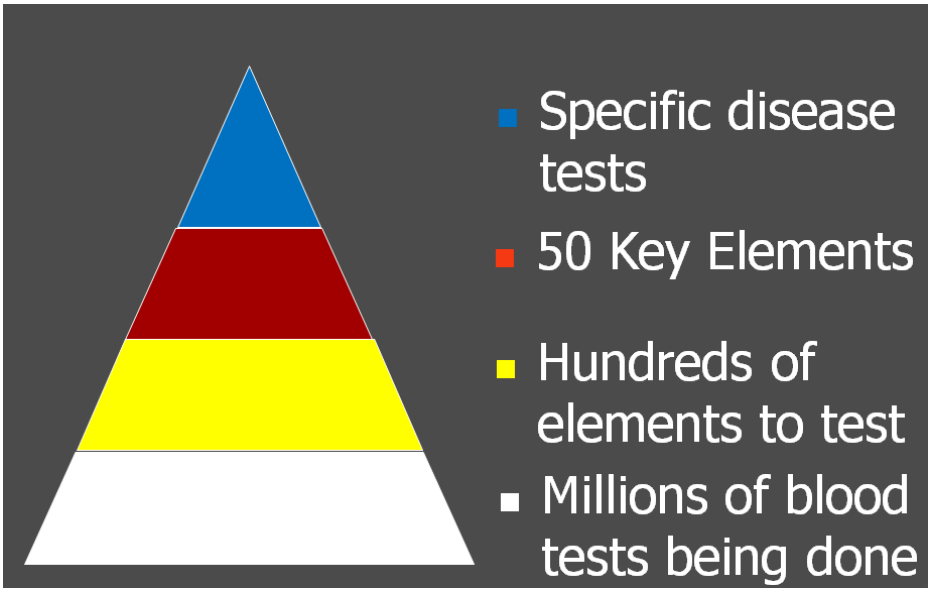
Foundation of Blood Analysis : SBN Panel – Key Elements

Blood Type
Glucose
Hemoglobin A1C
Uric Acid
Blood Urea Nitrogen
Creatinine
BUN/Creatinine Ratio
Sodium, total
Potassium
Chloride
Magnesium
Calcium
Phosphorus
Calcium/Albumin Ratio
Total Protein
Albumin
Globulin
A/G Ratio

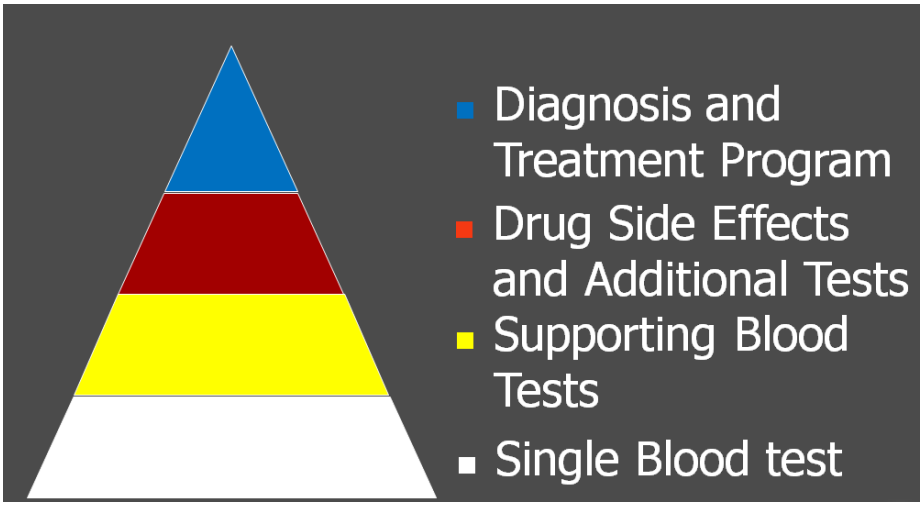
Bilirubin
Alkaline Phosphatase
LDH
SGOT (AST)
SGPT (ALT)
GGT
Serum Iron
Ferritin
Cholesterol
Triglycerides
HDL Cholesterol
LDL Cholesterol
VLDL Cholesterol
Cholesterol/HDL Ratio
T3 uptake
T4
T7 (Free T4 Calculated)
TSH
White Blood Count

Red Blood Count
Hemoglobin
Hematocrit
MCV
MCH
MCHC
Platelets
Polys (SEGS-PMNS)
Lymphocytes
Monocytes Basophils
Eosinophils
Erythrocyte Sed Rate
C-Reactive Protein
CPK
Vitamin D 25 Hydroxy

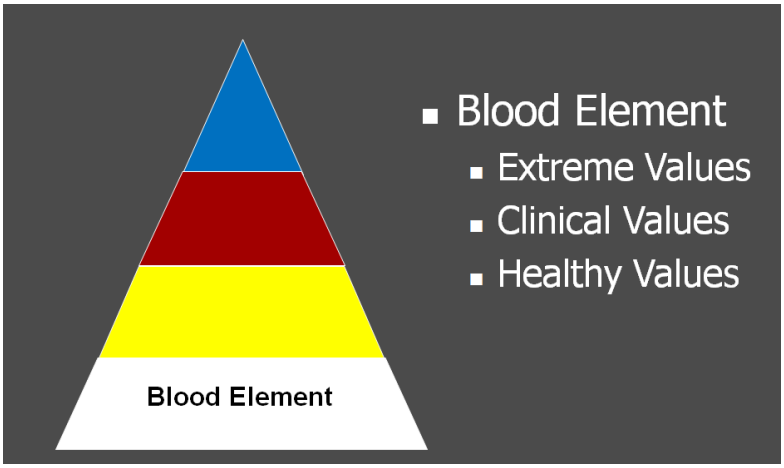
Foundation of Blood Analysis

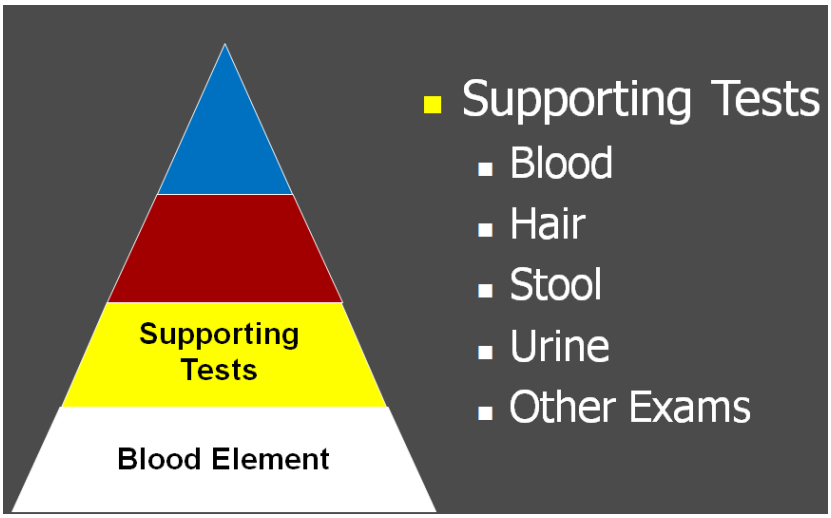


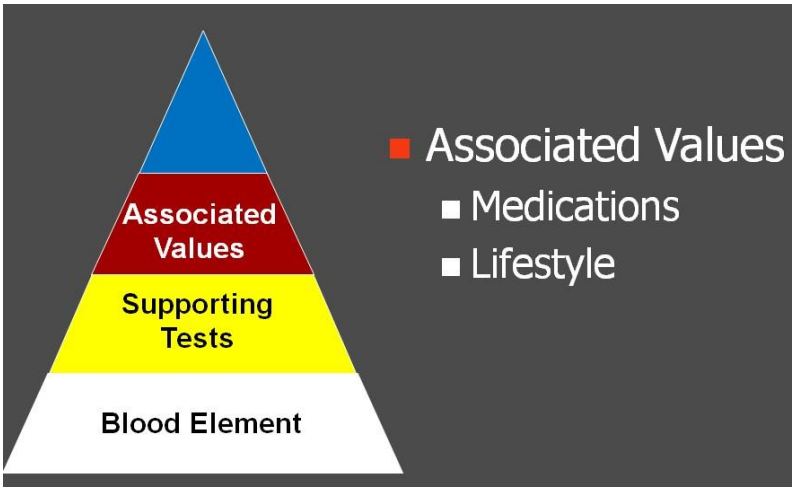
Complete Nutritional Analysis

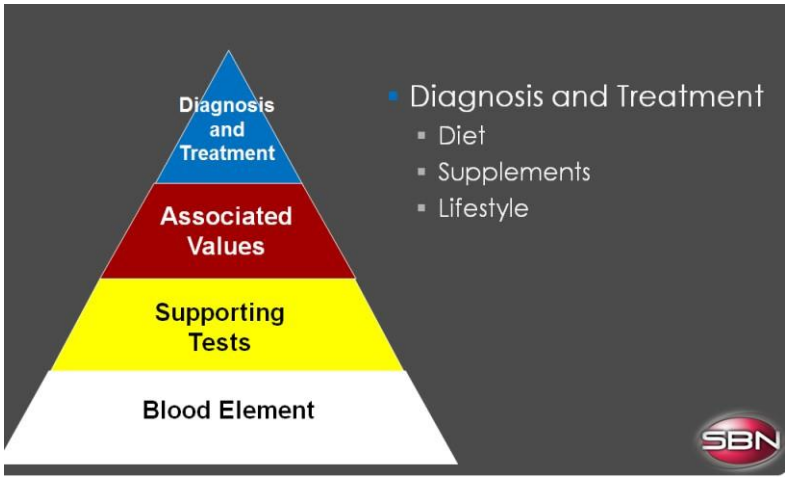


Complete Nutritional Analysis

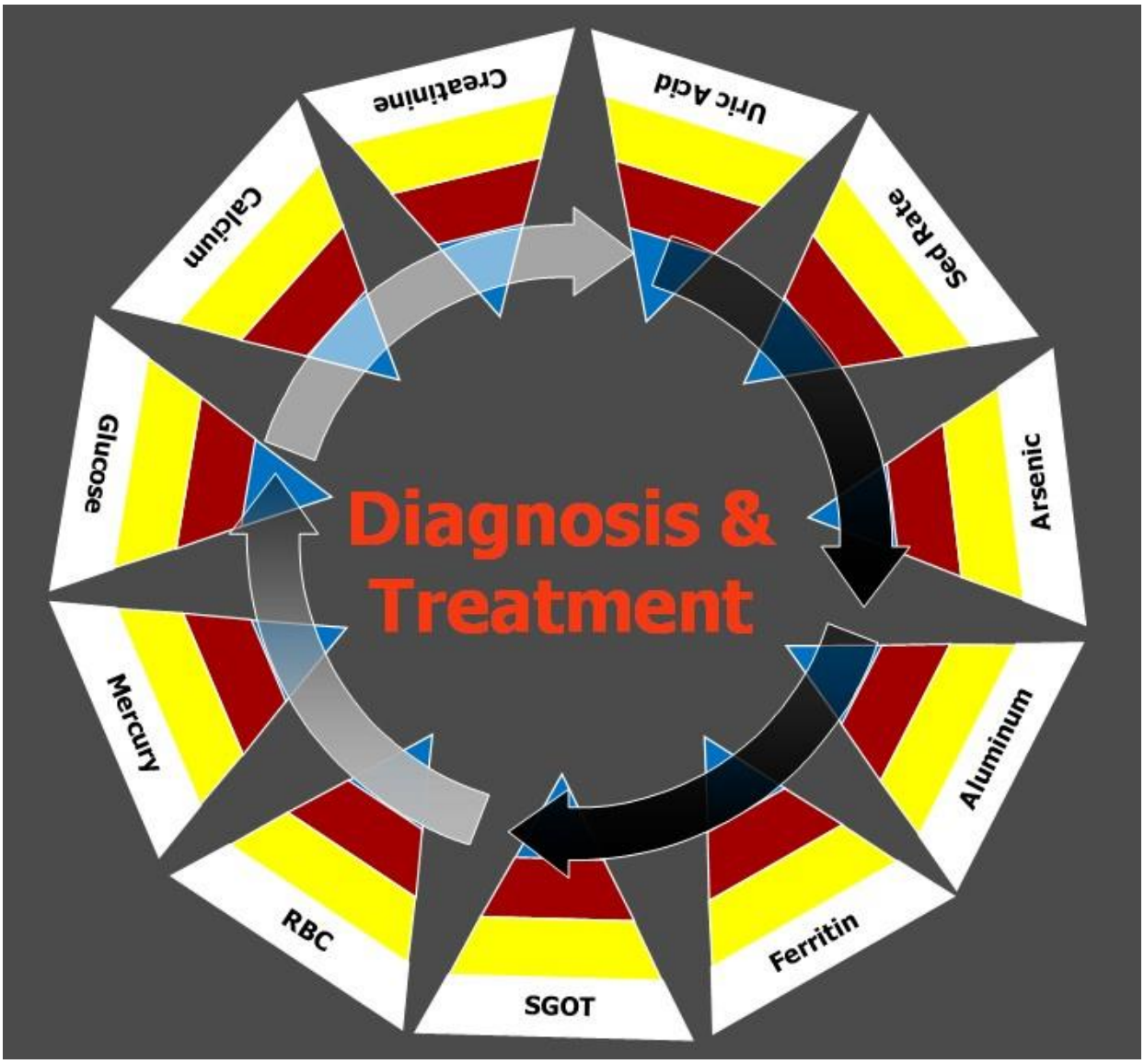








Blood Analysis Process



SCIENCE BASED NUTRITION, INC.
John Sample, DC, ND, DO, MD
123 Main St. Townsville, OH 43210
Trial@Trail4Health.com
www.drtrial4health.com
Phone: (555) 555-5555 Fax: (555) 555-5500

NUTRITION EVALUATION: 10/09/2013

PATIENT INFORMATION

Ann Onymous
1234 Anywhere Street
Townsville OH 12345
(555) 555-1234
Sex: F
Birth Date: 06/27/1966
Age: 47
Blood Type: A+

DATA USED FOR ANALYSIS

PSS	07/20/2011
Stool	07/20/2011
Urinalysis	07/20/2011
Vitals	07/20/2011
Blood	07/20/2011
Hair	07/20/2011
Medication	07/20/2011

VITALS

Height: 5'6"
Weight: 145
Blood Pressure: 139 / 95
O2 Level: 83%
Heart Rate: 98

PRIMARY SYMPTOMS

1. Hypercholesterolemia (High Cholesterol)
2. High blood pressure
3. Tachycardia (High Heart Rate)
4. Diabetes Mellitus

PRESENTING SYMPTOMS

Allergic Rhinitis (Sinusitis) • Anxiety/Stress • Arthritic/Rheumatic Disorder • Constipation • Depression • Diabetes Mellitus • Edema • Excessive Thirst • Fibromyalgia • GERD • Hypercholesterolemia (High Cholesterol) • Indigestion • Irritable Bowel Syndrome • Poor Concentration/Memory • Tachycardia (High Heart Rate) • Ulcerative Colitis • Energy level is worse than it was 5 years ago • Fingernails are soft • Fingernails are splitting • Has tattoos • Pale fingernail beds • Sensitive to chemicals, paint, exhaust fumes, cologne • Difficulty concentrating •

Patient Comments

Patient states that over the last 5 years she has seen over 10 doctors and specialists and she is still getting worse. She states that this is very frustrating and depressing. She is having problems doing basic living and houshold duties and that this is affecting her family and she is no longer able to work full time. She notices her balance isn't as good as it used to be; she is bumping and tripping more. Her mother has Alzheimer's disease and she is very concerned about her loss of memory and concentration.

Provider Comments/Findings

Patient tends to lose concentration and I had to repeat questions several times. Her skin is pale and pasty and she has dark circles around the eyes. Her eyes are blood shot and she looks tired. She does have some difficulty standing on one leg and walking on her toes and heels. SHe has a general disheveled apperance.

PRIMARY FINDINGS SUGGESTIVE OF

- Diabetes
- Vitamin D Deficiency
- Thyroid Considerations
- Possible allergy, reactivity or toxicity
- Noted Blood Values
- High Hair Arsenic
- High Hair Lead
- Noted Hair Values
- Gastro/Intestinal dysfunction
- Inflammation of Liver
- Anemia
- Possible infection and/or inflammation
- Very Low Hair Chromium
- High Hair Cadmium
- High Hair Mercury

The purpose for this nutrition and lifestyle program is to create an optimum environment in which your body can heal and repair itself. This is achieved by eliminating foods and toxins, which adversely affect the body, and by providing nutrients that the body may be lacking.

MEDICATIONS

- Acetaminophen - Occasional.
- Glucophage - 6 months - 2 years.
- Naproxen Oral - 6 months - 2 years.
- Zetia - More than 2 years.
- Diflucan - 6 months - 2 years.
- Lipitor - Less than 6 months.
- Prilosec - More than 2 years.

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SIDE EFFECTS OF MEDICATIONS

- **Acetaminophen (**Otherwise known as Tylenol) is indicated for use in treating minor aches and pains for pain/arthritis & Panadol.
  Side Effects: hepatitis; hives; decreased blood platelets; decreased white blood cells; discolored spots and small elevations of the skin.
  Possible Nutrients Depleted: Glutathione.

- **Fluconazole Oral** (Otherwise Known As: Diflucan) is used to treat fungal and yeast infections.
  Side Effects: nausea; vomiting; diarrhea; stomach pain; headache; dizziness; and hair loss.
  Possible Nutrients Depleted: Magnesium and Potassium.

- **Glucophage** (Otherwise known as Metformin) is indicated as an adjunct to diet to lower blood glucose.
  Side Effects: diarrhea; nausea; vomiting; abdominal bloating; flatulence; anorexia; unpleasant or metallic taste; rash/dermatitis; & subnormal serum vitamin B 12 levels.
  Possible Nutrients Depleted: Coenzyme Q10, Magnesium, Folic Acid, Vitamin B12 and B1.

- **Lipitor** is used to treat cholesterol problems.
  Side Effects: liver dysfunction; adrenal failure; diffused muscle pain; muscle tenderness; weakness; malaise, fever; myopathy; muscle disease; edema; digestive problems; gastritis; colitis; vomiting; ulcers; bleeding gums; bleeding ulcers; hepatitis, pancreatitis; gall bladder disease; asthma; decreased libido; leg cramps; bursitis; itching; alopecia; dry skin; acne; cystitis; hematuria; kidney stone; breast tenderness; various hemorrhage; loss of taste; palpitations; migraines; arrhythmia; and gout.
  Possible Nutrients Depleted: Vitamin A, Vitamin D, Vitamin E, Vitamin K, Vitamin B12, Calcium, Folic Acid, Iron, Magnesium, Potassium, and CoQ10.

- **Naproxen Oral** (Otherwise known as Anaprox & Naprosyn) is used to relieve pain and inflammation associated with various conditions.
  Side Effects: constipation; heartburn; abdominal pain; nausea; dyspepsia; diarrhea; stomatitis; headache; dizziness; drowsiness; lightheadedness; vertigo; skin eruptions; ecchymosis; sweating; purpura; tinnitus; hearing disturbances; visual disturbances; edema; dyspnea; palpitations; thirst; abnormal function liver tests; colitis; gastrointestinal bleeding and/or perforation; hematemesis; jaundice; pancreatitis; melena; vomiting; glomular nephritis, hematuria; hyperkalemia; interstitial nephritis; nephrotic syndrome; renal disease; renal failure; renal papillary necrosis; agranulocytosis; eosinophilia; granulocytopenia; leukopenia; thrombocytopenia; depression; dream abnormalities; inability to concentrate; insomnia; malaise; myalgia; muscle weakness; alopecia; photosensitive dermatitis; urticaria; skin rashes; hearing impairment; congestive heart failure; eosinophilic pneumonitis; anaphylactic reactions; angioneurotic edema; menstrual disorders; chills and fever; aplastic anemia; hemolytic anemia; aseptic meningitis; cognitive dysfunction; epidermal necrolysis; erythema multiforme; Steven-Johnson syndrome; non-peptic gastrointestinal ulceration; ulcerative stomatitis; vasculitis; hyperglycemia; hypoglycemia.

Possible Nutrients Depleted: Folic Acid, Iron.

- **Prilosec** (Otherwise known as Omeprazole) is used to treat acid related stomach and throat problems.
  Side Effects: gastric tumors; cancer; and impairment of fertility; headache; diarrhea; abdominal pain; nausea; dizziness; vomiting; rash; constipation; cough; fever; pain; fatigue; malaise; chest pain; tachycardia; bradycardia; palpitation; high blood pressure; edema; elevated liver enzymes (SGOT and SGPT); hepatitis; pancreatitis; anorexia, dry mouth; hypoglycemia; weight gain; muscle cramps; muscle and joint pain; muscle weakness; depression; hallucinations; confusion; insomnia; nervousness; tremors; apathy; anxiety; vertigo; skin inflammation; toxic epidermal necrolysis; alopecia; tinnitus; gynecomastia; and various anemia's.
  Possible Nutrients Depleted: Vitamin B12, Folic Acid, Vitamin D, Calcium, Iron and Zinc.

- **Ezetimibe** (Otherwise known as Zetia) is used to help lower cholesterol.
  Side Effects: acute infection of the nose; throat or sinus; gall stones; chest pains; joint pain; muscle pain; back pain; low energy; cough; diarrhea; stomach cramps; muscle disease; hepatitis; inflammation of the gall bladder; acute inflammation of the pancreas; erythema multiform; hives; rash; abnormal liver function tests; depression; decreased blood platelets; dizziness; nausea; numbness; & tingling sensations.
  Possible Nutrients Depleted: Vitamin A, Vitamin D, Vitamin E, Vitamin B12, Calcium, Folic Acid, Iron, Magnesium, Potassium, and CoQ10.

INTERPRETING ALL TEST RESULTS

Your test results are color coded for ease of analysis:
Yellow = values are outside the healthy range but still within the clinical range
Red = values are outside the clinical range
Blue = values extremely higher or lower than the clinical range limits.

INTERPRETING BLOOD LAB RESULTS

On the blood test results page found later in the report, you'll notice two columns on the right side of the page labeled "Healthy Range" and "Clinical Range". The clinical range is used by the medical community. Any values outside this range are indicative of a disease process. The healthy range is more narrow than the clinical range. Test values outside of the healthy range indicate results which are not as good as they should be. The tighter guidelines of the healthy range allows us to see signs of any developing diseases/conditions.

INTERPRETING HAIR LAB RESULTS

The hair analysis screening is looking for essential, nonessential and potentially toxic elements. These elements are irreversibly incorporated into growing hair. The amount of each element found in the hair is proportional to levels in other body tissues. This makes the hair analysis a suitable indirect screening for physiological excess, deficiency or maldistribution of elements in the body. All screening tests have limitations which must be taken into consideration. Scalp hair is vulnerable to external contamination by water, hair treatments and other products. The data provided by a hair analysis should be considered in conjunction with symptoms, diet analysis, occupation and lifestyle, water source, physical examination and the results of other laboratory tests. However, accepting these limitations, hair analysis can provide useful insights into the toxic load and biochemical condition of the body.

For each elevated toxic element in the hair, the most common sources of exposure are listed in

the report. Due to pollution, our industrial culture and other environmental factors, it is impossible to completely eliminate your exposure to some toxic elements. However by knowing the sources of toxins elevated in your body, you can work to reduce your exposure, thus lessening the total toxic burden on your body.

DIAGNOSTIC FINDINGS

CORONARY RISK ASSESSMENT

- **Total Cholesterol:** 188
- **HDL Cholesterol:** 63
- **LDL Cholesterol:** 87
- **VLDL Cholesterol:** 16

Coronary Risk Assessment: **2.98** **Probably Protected**

The coronary risk is determined by taking the total cholesterol and dividing it by the HDL. To reduce your risk of cardiovascular problems a value below 4 is recommended. The Total Cholesterol is determined by adding the HDL, LDL, and VLDL together. Recent studies have shown a correlation between a high HDL and longevity. Think of HDL as the healthy cholesterol and generally the higher the better. LDL is the bad cholesterol, as it tends to plug the arteries. The VLDL is the very worst cholesterol and is more like sludge. Lower is better for the LDL and VLDL in determining coronary risk and overall health.

DIABETES

The Glucose and Hemoglobin A1-C are high. The Hemoglobin A1-C indicates diabetes and the severity of diabetes. At this time, with the recommended vitamins and the Category 2 Diabetic Diet (found later in this report), the body should be able to regulate the glucose better to the point that the need for medication can be avoided or at least reduced. WARNING: If you are on medication for diabetes, you should not stop your medication without contacting the doctor. Be sure and get retested. Significant change can occur within days.

This finding is supported by:
High Blood LDL Cholesterol • Low Blood Chloride • Low Blood Total Protein • High Blood SGPT (ALT) • High Blood GGT • Low Blood Serum Iron • High Blood Total Cholesterol • Low Hair Chromium

This finding is associated with:
Presenting symptoms - Edema
Medications Taken - Naproxen Oral

Nutrients Recommended:
Glucoset • Opti EPA 500mg • Vital Trace Minerals

GASTRO/INTESTINAL DYSFUNCTION

The Chloride is low and the Calcium, Protein, Albumin and Globulin are a little low. This is most likely due to poor digestion and/or low protein/ high carbohydrate diet and seen in edema, malnutrition, and malabsorption. Digestive enzymes may be of benefit. Albumin, a type of protein, is very important in healing and repair. Eggs and Chlorella are good sources of Albumin and Protein. Globulin, a type of protein, is important for a strong immune system and to fight disease. Chloride is a key element for proper digestion and overhydration, which is not very common, can lower Chloride levels. Many drugs or medications can contribute toward or cause these findings. One out of every four bites of food you eat (25%) should be of a protein source, preferably more plant based protein such as seeds, nuts, beans and sprouts. Eggs and even some fish, chicken, turkey and possibly small amounts of red meat may be beneficial.

This finding is supported by:
Low Blood Albumin • High Blood SGOT (AST) • Low Blood Serum Iron

This finding is associated with:
Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Diflucan • Glucophage

Nutrients Recommended:
Betaine Plus 496mg • Calcium MCHC 250mg

VITAMIN D DEFICIENCY

The Vitamin D 25 Hydroxy blood test is very low. Levels less than 32 ng/mL have been shown to reduce intestinal calcium absorption, reduced bone density, reduced immune system, increased insulin resistance and risk of many types of cancer. This is the best way to determine true Vitamin D status. Increase sun exposure and/or take Vitamin D.

This finding is associated with:
Presenting symptoms - Depression • Fibromyalgia • Frequent fever blisters • Frequent sore throats • Frequent colds • Diabetes Mellitus • Abnormal cycle >29 days and/or <26 days • Rheumatoid Arthritis • Breast Fibroids

Nutrients Recommended:
Vitamin D 5000IU

INFLAMMATION OF LIVER

The SGOT and GGT are a little high and the SGPT is high. The liver is a little hypermetabolic or a little inflammed. Many drugs or alcohol can cause or contribute to this.

This finding is supported by:
High Blood Glucose • Low Blood Albumin • High Blood SGOT (AST) • High Blood GGT • High Blood ESR-Erythrocyte Sed Rate, Westergren

This finding is associated with:
Medications Taken - Lipitor • Prilosec • Naproxen Oral

Nutrients Recommended:
Lipogen • Vitamin C 1000mg

THYROID CONSIDERATIONS

The T4 thyroxine and T7 are high, the T3 Uptake is optimal and the TSH is low. These findings are a little unusual unless thyroid medication is involved. Most thyroid medications are T4 (Thyroxine) which would account for the T4 being high. If medication is involved it will suppress pituitary function resulting in the low TSH. Taking the recommended nutrients for the thyroid may alter the need or dosage of thyroid medication.
Note: If thyroid medication is being used due to thyroid cancer, Grave's disease or similar thyroid pathology that has resulted in elimination of all natural thyroid tissue then no supplementation of vitamins, iodine or glandulars is recommended.

This finding is associated with:
Medications Taken - Lipitor

Nutrients Recommended:
Iodoral

ANEMIA

The Ferritin is low. Ferritin indicates the level of iron reserves, which are depleted. The Serum Iron is a little low, which indicates the available iron for the body to produce Red Blood Cells.

This finding is associated with:

Presenting symptoms - Allergic Rhinitis (Sinusitis) • Arthritic/Rheumatic Disorder • Indigestion • Sinusitis • Abdominal gas • Problems with Eczema • Frequent bladder infections • GERD • Irritable Bowel • Edema

Medications Taken - Lipitor • Prilosec • Naproxen Oral • Zetia • Acetaminophen • Glucophage

Nutrients Recommended:

Bio Dophilus • Inflavonoid • Lauricidin • Nutri E 400IU Forte • Vitamin C 1000mg

NOTED BLOOD VALUES

The Cholesterol and the LDL are a little high. This is not critical but it could be better. Excess weight, poor diet, caffeine intake and lack of exercise all contribute to this condition.

The MCHC is a little high. MCHC is the concentration of hemoglobin in the average red cell. The body is producing new red blood cells and at this level is not that significant.

The Triglyceride/HDL Cholesterol Ratio is optimal. Recent studies have shown that the ratio of triglycerides to HDL was the strongest predictor of a heart attack. In adults, the triglyceride/HDL ratio should be below 2.

The Glomerular Filtration Rate Estimated (eGFR) is optimal. The eGFR is a calculated estimate of the actual glomerular filtration rate and is based on your serum Creatinine concentration. The calculation uses formulas that may also include your age, gender, height, and weight. In some formulas, race may also be used in the calculation.
The kidneys filter blood and help control blood pressure. They remove waste and water and produce urine. eGFR is one of the best tests to indicate how healthy your kidneys are. It is important to know your eGFR because one may not be able to feel kidney damage.
Over 59-preferred
35 to 58-early kidney damage
16 to 34-moderate kidney damage
1 to 15 severe kidney damage
* Please note that if your test result is less than 15, dialysis or transplant may be needed soon.

This finding is associated with:

Medications Taken - Glucophage

Nutrients Recommended:

Opti EPA 500mg

VERY LOW HAIR CHROMIUM

The chromium level in the hair is very low. Chromium is very important in carbohydrate and glucose metabolism and in the mechanism of insulin action. Basically, this mineral is very important for hypoglycemics and diabetics. Depletion can result in reduced metabolism of amino acids, glucose and lipid metabolism. It is also associated with protein malnutrition, elevated cholesterol levels, atherosclerosis and corneal damage.

Nutrients Recommended:

Vital Trace Minerals

HIGH HAIR ARSENIC

The arsenic level in the hair is high. Chronic arsenic exposure is known to cause: bone marrow depression; leukopenia; normochromic anemia; exfoliation and pigmentation of skin; neurological symptoms; polyneuritis; altered hematopoiesis; liver degeneration; kidney

HIGH HAIR ARSENIC

The arsenic level in the hair is high. Chronic arsenic exposure is known to cause: bone marrow depression; leukopenia; normochromic anemia; exfoliation and pigmentation of skin; neurological symptoms; polyneuritis; altered hematopoiesis; liver degeneration; kidney degeneration; skin cancer; cancers of the respiratory tract; agitation; learning impairment; and confusion. Delayed toxicity symptoms include abdominal pain, nausea, vomiting, hematuria, and jaundice. Ingestion of relatively large amounts of soluble arsenic compounds, especially on an empty stomach, affect the myocardium, causing death within a few hours. Ingesting smaller amounts of arsenic can cause epigastric pain, vomiting and diarrhea, followed by inflammation of the conjunctiva and respiratory mucous membranes, epitaxis, transient jaundice, cardiomyopathy, erythematous or visceral rashes, and sweating. Other symptoms: malaise; muscle weakness; eczema; dermatitis; increased salivation; strong "garlic breath", alopecia totalis, vomiting, diarrhea and skin cancer. Hematological, renal, or pancreatic dysfunction may be observed. Symptoms of neuropathy are experienced typically appear as with tingling and paresthesia in the extremities. Proteinuria and methemoglobinemia are frequently observed, causing renal failure and death.

Arsenic can be absorbed by the human body through the respiratory and gastrointestinal tracts and through the skin. Arsenic is found in tobacco smoke and is a suspected causative factor in lung cancer. Metal smelting and the production of glass, ceramics, insecticides, fungicides and herbicides mobilize environmental arsenic. Drinking water may also be a source of arsenic, and the use of arsenic-containing paints is a known source of arsenic poisoning. Elevated hair levels are seen long before acute clinical signs of arsenic toxicity are obvious.

Therapeutic consideration for chronic overexposure: antioxidant therapy, especially ascorbic acid or calcium ascorbate, vitamin E (all tocopherols), increased intake of sulfur-containing amino acids, vitamin B6. Note: Arsenic suppresses iodine and selenium.

Research: the relationship between cognitive functions and hair mineral concentrations of lead, arsenic, cadmium, and aluminum was examined for a random selection of 69 children. The data obtained showed a significant correlation between reading and writing skill and elevated arsenic levels, as well as interaction between arsenic and lead. Children with reduced visual-motor skills, had clearly elevated aluminum and lead levels.

Nutrients Recommended:
B Activ • Chelex • Ossapan 1100 • Xcellent • Xcellent HG400

HIGH HAIR CADMIUM

The cadmium level in the hair is high. Cadmium (Cd) is a toxic, heavy metal with no positive metabolic function in the body. It is relatively rare but it is more toxic than lead. Hair cadmium levels provide an excellent indication of body burden. Moderately high cadmium levels are consistent with hypertension, while very severe cadmium toxicity can cause hypotension. Recent studies have shown associations with cadmium and tumors of the lung, kidney, breast and prostate.

Cadmium also affects the kidneys, lungs, testes, arterial walls, and bones. It interferes with many enzymatic systems, leads to anemia, proteinuria and glucosurea and depletes glutathione, calcium, phosphorus and zinc. Cadmium absorption is reduced by zinc, calcium and selenium. Alkaline phosphatase is commonly elevated with cadmium toxicity. One of the things that you should do to help your overall long-term health is to reduce your cadmium intake.

The most common sources of cadmium are: refined foods (white flour, white sugar, etc.), acid drinks left in galvanized pails or ice trays, superphosphate fertilizers, gluten flour, some cola drinks, tap water, atmospheric pollution in the burning of coal and petroleum products, seafood, plastic water pipes, margarine, canned fruits and beverages, sugar and molasses, alcoholic drinks, cigarette smoke, zinc smelters, cadmium plating used in soft drink dispensing machines.

lumbar pain; learning disabilities, dyslexia, delinquency, schizophrenia, high anxiety, atherosclerosis; kidney damage with associated urinary loss of essential minerals, amino acids and protein.

Nutrients Recommended:
Calcium MCHC 250mg • Chlorella Clean 250mg

HIGH HAIR LEAD

The lead level in the hair is high. The Center for Disease Control (CDC) reports the following symptoms as those frequently seen in exposed children: abdominal pain; colics; severe and repeated vomiting; irritability; hyperactivity; anorexia; loss of appetite; ataxia; mental disturbances. In advanced stage: mental retardation; learning disability; speech disturbances; stupor or fatigue; intermittent fever; dehydration; constipation; diarrhea; nausea; altered sleep; epileptic seizures; headaches; poor memory; inability to concentrate; ADD/ADHD; aberrant behavior; decreased coordination; irritability; pain in abdomen; bones and muscles; gout; anemia. Physiologically, the renal, nervous, reproductive, endocrine, immune, and hemopoietic systems are affected. Sub-toxic oral exposure to lead and cadmium increases the susceptibility to bacterial and viral infections.
Other symptoms associated with the early stages of lead intoxication are: headaches; vertigo; tremor; joint pain; neuritis; general mental symptoms, psychoneuroses
Symptoms of acute intoxication include: colic; loss of muscle strength; muscle tenderness; paresthesia; signs of neuropathy. Lead is known to damage the kidney, the liver, and the reproductive system, as well as to interfere with bone marrow function, basic cellular processes and brain functions. It is known to be responsible for convulsions; abdominal pain; paralysis; temporary blindness; extreme pallor; loss of weight and appetite; constipation and numerous other problems.
Lead causes nerve and mental problems, especially affecting learning ability in children. It was reported that the IQs of middle-class children dropped five to seven points after lead exposure, and Moon, et. al., demonstrated that lead levels also related to decreased visual and motor performance.
Therapeutic considerations: mild lead exposure can be treated successfully with oral chelating agents, targeted mineral therapy and dietary measures. The following should be considered: lead displaced calcium. In the case of calcium deficiency, lead is more readily deposited in tissues. Increases in phosphorus intake, vitamin C, vitamin B-complex, pectin, vitamin E, vitamins A and C, and chromium can avoid cellular damage and reduce lead levels; Inadequate vitamin D intake facilitates the absorption of lead.
Common sources of lead:
lead based paints; older homes; crystal; ceramics; canned food; food crops; water contamination.

Nutrients Recommended:
Calcium MCHC 250mg • Chlorella Clean 250mg • Pwdr Vit C 4000mg w/ Ribose • Stress B Plus • Vital Trace Minerals

HIGH HAIR MERCURY

The mercury level in the hair is high. Mercury (Hg) is a toxic element for humans and animals. Hair mercury level is an accurate indicator of mercury body burden. A considerable variance in the sensitivity of different individuals to mercury has been observed, with some exhibiting symptoms at 3 to 5 ppm. Even very low levels of mercury have been found to suppress biological selenium activity. After dental amalgams are used, elevated hair mercury may be observed for six months to over a year. Hair mercury has been found to correlate with acute myocardial infarction where on average a 1 ppm mercury was found to correlate with a 9 percent

increase in acute myocardial infarction risk.
Mercury displaces selenium (which is a major anti-oxidant), zinc (protein, DNA and energy metabolism) and copper. Supplementation of magnesium, zinc, calcium, selenium, and manganese has been shown to be beneficial in relieving mercury loads.
Symptoms of acute contamination: metallic taste, thirst, discoloration and edema of oral mucosa, burning mouth pain, salivation, abdominal pain, vomiting, bloody diarrhea, severe gastroenteritis, colitis, nephrosis, anuria, uremia, shock.
Symptoms of chronic contamination: gingivitis; weakness; ataxia; intention tremors; chronic fatigue (caused by inhibition of thyroid conversion of T4 to T3); depression; poor memory and cognitive function; learning disabilities; behavioral disorders; emotional instability; speech impairment, irritability; peripheral numbness, tingling or neuropathy; sleep disturbance; decreased senses of touch, hearing or vision; hypersensitivity and allergies; persistent infections including chronic yeast overgrowth; compromised immune function; cardiovascular disease. It disrupts intracellular transport in neurons and can decrease the production of neurotransmitters. Eventually this can lead to autoimmune diseases such as SLE (systemic lupus erythematosis), myelinopathies such as MS and myasthenia gravis, rheumatoid arthritis, MCS (multiple chemical sensitivity), and chronic candidiasis. An inverse relationship has been observed between hair mercury levels and intelligence scores in elementary school children.
Other sources of mercury are: large fish, pesticide residues, mercurial fungicides on seed grains, dental fillings, coal burning, calomel (mercurous chloride), interior paints, pharmaceuticals, the manufacture of paper, pulp and plastic products, and water.

Nutrients Recommended:
Chlorella Clean 250mg • Pwdr Vit C 4000mg w/ Ribose • Vital Trace Minerals

NOTED HAIR VALUES

The selenium level in the hair is high. This is most often from external exposure, such as to dandruff shampoos. Toxicity can cause interference in the metabolism of sulfur-bearing amino acids, structural changes and red pigmentation of the hair and nails, garlic breath, metallic taste in the mouth, discoloration of teeth and skin, and gastroenteritis. High hair selenium is an accurate indicator of high serum levels.

The barium level in the hair is a little high. Barium compounds are found in soaps, ceramics, paper, glass, plastics, textiles, dyes, fuel additives, rubber, paint and pesticides. Barium toxicity can cause vomiting, diarrhea, abdominal pain, muscular and myocardial stimulation, tingling in the extremities, and loss of tendon reflexes.

The germanium level in the hair is high. This does not necessarily correlate with high levels of serum germanium.

The aluminum level in the hair is a little high. Any aluminum is too much. Aluminum toxicity is associated with Alzheimer's and Parkinson's disease, behavioral/learning disorders such as ADD, ADHD and autism. Aluminum has neurotoxic effects at high levels, but low levels of accumulation may not elicit immediate symptoms. Early symptoms of aluminum burden may include fatigue, headache, and other symptoms. Aluminum is a heavy metal that displaces your other good minerals, such as magnesium, calcium, zinc and phosphorus. One of the things that you should do to help your overall long-term health is to reduce your aluminum intake. The most common sources of aluminum to avoid are: antiperspirants, aluminum cookware, antacids, some baking sodas, baking powder, some breath mints, pickles, some skin lotion, some cosmetics, aluminum foil, canned goods, emulsifiers in some processed cheese, table salt - anti-caking compound, bleaching agent used in white flour, buffered aspirin, some toothpaste, dental amalgams, cigarette filters, and drinking water (tap water). Do not eat or drink anything that

comes in a can. Read your labels before you purchase. Aluminum has also been found in a granola bar.
Aluminum rods are commonly used in hot water tanks in area of acidic water. These rods will dissolve neutralizing the water, thus protecting the hot water tank. A rod of magnesium is an option for the same purpose.
Note: Fluoride and fluoridation increases the absorption of aluminum.
Chlorella and magnesium with malic acid have been reported to be quite effective in lowering aluminum.

The sulfur level in the hair is a little low. The mineral sulfur is needed for the manufacture of many proteins, including those forming hair, muscles, and skin. Sulfur contributes to fat digestion and absorption, because it is needed to make bile acids. Sulfur is also a constituent of bones, teeth, and collagen (the protein in connective tissue). As a component of insulin, sulfur is needed to regulate blood sugar. Most dietary sulfur is consumed as part of certain amino acids in protein-rich foods. Meat and poultry, organ meats, fish, eggs, beans, and dairy products are all good sources of sulfur-containing amino acids. Sulfur also occurs in garlic and onions.

Nutrients Recommended:
Calcium MCHC 250mg • Chlorella Clean 250mg • MagMalic • Multiple Vitamin • Vital Trace Minerals

To help get these heavy metals out of your system, which is very important, Chlorella is recommended. Magnesium and selenium, are both very important in getting these toxic metals through the kidneys. Chlorella and cilantro have the unique ability to actually get these heavy metals out of brain, liver, heart, and lung tissue. Adding fresh cilantro to the diet is also recommended. Cilantro is an herb that can be found in most supermarkets. Chop it up and add it to salads, sauces, etc. Since we are constantly being exposed to heavy metals in our society, it is recommend that even after you are feeling better that you continue with the chlorella.

LIFESTYLE / DIETARY RECOMMENDATIONS

DIET FOCUS

Food can be broken down into basically two categories:

1. Energy (calories from fat, carbohydrates and protein)
2. Nourishment (the nutrient density of the food; vitamin and mineral content).

When planning your meals, use this thought process:

1. Get at least 2 vegetables with each meal. Fruit should be limited only if you have glucose handling issues. However, always consume more vegetables than fruits.

2. Proteins: 25-35% of the meal needs to be of a protein source.
   - Focus on good quality protein and not the processed protein bars, drinks, and powders.
   - Most desirable proteins: meats (like chicken, fish, turkey and even red meat), eggs, beans, seeds, nuts, sprouts, quinoa, nut butters (ie. peanut butter, cashew butter, almond butter).
   - Eliminate these least desirable proteins: processed soy, processed dairy, pork, processed luncheon meats (those that contain "nitrates" or "nitrites").
   - Search Google "USDA SR 21" for a downloadable database to look up nutritional content of foods.

3. Carbohydrates: 40-60% of your meal needs to be carbohydrate.
   - Most desirable carbohydrates sources: whole grain breads, pastas (including egg noodles), and rice, whole vegetables, whole fruit.
   - Eliminate these least desirable carbohydrates: white sugar, white flour, fruit juice, high fructose corn syrup, chips, French fries, pop/soda

4. Fats: Your meal should contain anywhere from 15-25% fat.
   - Most desirable fat sources: nuts (cashews, almonds, pecans, walnuts, Brazil nuts (raw and unsalted are preferred), seeds (sunflower seeds, pumpkin seeds), avocados, coconut oil, fish, nut butters (peanut butter, almond butter, etc)
   - Desirable Cooking Oils: Grape Seed Oil, Olive Oil, Coconut Oil, Palm Oil
   - Eliminated these least desirable fat sources: anything with trans-fat (AKA: hydrogenated fat), interesterified fat or Olestra. Bacon, sausage, etc.
   - Strictly avoid hydrogenated/trans-fats: About 80% of trans fats in your diet come from processed foods, fast food, primarily snack foods and desserts.

5. Special instructions may be given based upon certain metabolic conditions such as cancer, diabetes, kidney disorders etc.

AEROBIC EXERCISE

Examples of aerobic exercise are jogging, cycling, elliptical trainer, fast-paced walking, etc. It is recommended that you build up to at least 40 minutes a day. If at first you do not have the energy to exercise this much, it is recommended that you start slowly by exercising 10 minutes two or three times a day until you can gradually build up to 40 minutes a day.

STRENGTH TRAINING

If you are not currently on a weight training program, a muscle building exercise (i.e. step exercise) 10 minutes a day is encouraged. If at first you do not have the energy or physical ability to perform this exercise, it is recommended that you start slowly by setting a goal to do this exercise 2 minutes two or three times a day until you can gradually build up to 10 minutes a day.

WATER CONSUMPTION

Drink 1 quart of clean, filtered water per 50lbs of body weight per day. Do not go over 3 quarts regardless of your weight. More water might be necessary depending on exercise, environment and perspiration. We recommend using a multiple filtration system for your drinking and cooking water. There are several types of these, which include reverse osmosis. Distilled water is not recommended. Since distilled water has little or no mineral content, it acts like a vacuum that can actually leach minerals from your system.

A word of caution - **anytime you make drastic changes in diet, vitamin intake, or exercise, realize that you may feel somewhat worse before you feel better.** It doesn't happen often, but as your body detoxifies, you may feel worse if it occurs too fast. If you do feel worse, don't panic, it will pass in a few days. If this problem does occur, take half of what is recommended for three days and slowly over two weeks progress to taking the complete program.

Everything that has been recommended is very important and many of these things work together. In order to get the most effective results, it is important that you follow the program exactly as outlined. Following the diet may not be easy, but if you do, you will get the best outcome. Likewise, if you don't take the vitamins, or only take part of them, you may not see the expected results. Many people with some very serious problems have been helped using this program. The purpose of this analysis is to benefit you. This is for your well-being, so please do the program as recommended so that you will achieve the best results.

Attached is a list of vitamins that have been carefully selected for your specific problems. These vitamins are recommended because they are of the highest quality. Occasionally, you will hear rumors regarding vitamin toxicity. Rest assured that these issues have been researched and the risk of significant side effects is extremely low. Historical data and experience have shown these vitamins, along with the dietary changes, to be the best in helping you achieve the necessary improvements needed on your test results.

Please keep this report for future reference and bring it with you to your next evaluation.

If we can be of any further assistance to you or your family please do not hesitate to ask.

Yours in Health,

Dr. Jamie Sample, DC, ND, DO, MD

Name: Ann Onymous **Lab: LabCorp** **Blood Test Results**

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improvement | ☹ Worse | Ø No Improvement

Test Description	Current Rating 07/20/2011		Prior 05/15/2011	Delta	Healthy	Clinical	Units
Glucose	120.00	High	178.00	☺	80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	6.80	High	8.70	☺	4.80 - 5.60	4.60 - 6.40	%
Uric Acid	5.30	★	5.60		3.50 - 6.60	2.50 - 7.10	mg/dL
BUN (Blood Urea Nitrogen)	17.00	★	20.00	☺	8.00 - 18.00	6.00 - 24.00	mg/dL
Creatinine	0.79	★	1.00	☺	0.70 - 0.87	0.57 - 1.00	mg/dL
GFR Est.	66.00	★	70.00		59.00 - 145.00	45.00 - 150.00	/min/1.73r
BUN / Creatinine Ratio	18.48	★	21.00	☺	12.00 - 19.00	9.00 - 23.00	ratio
Sodium	141.00	★	139.00		139.00 - 143.00	135.00 - 145.00	meq/dL
Potassium	4.11	★	4.10		3.80 - 4.50	3.50 - 5.20	meq/dL
Chloride	96.00	Low	90.00	☺	102.00 - 106.00	97.00 - 108.00	meq/dL
Magnesium	2.30	★	2.20		1.90 - 2.51	1.60 - 2.60	mg/dL
Calcium	9.40	low	9.30	☺	9.60 - 10.00	8.70 - 10.20	mg/dL
Calcium/Albumin Ratio	2.31	★	2.33		2.10 - 2.50	2.03 - 2.71	ratio
Phosphorus	3.70	★	3.90		3.40 - 4.00	2.50 - 4.50	mg/dL
Total Protein	6.20	low	5.95	☺	7.10 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.00	low	3.55	☺	4.10 - 4.50	3.60 - 4.80	gm/dL
Globulin	2.20	low	1.40	☺	2.80 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	1.23	★	1.22		1.20 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.44	★	0.52		0.30 - 0.90	0.00 - 1.20	mg/dL
Alk. Phosphatase 25-530	77.00	★	67.00		62.00 - 87.00	42.00 - 107.00	IU/L
Creatine Kinase	134.00	★	150.00	☺	60.00 - 140.00	24.00 - 173.00	U/L
LDH	135.00	★	224.00	☺	120.00 - 160.00	100.00 - 214.00	IU/L
SGOT (AST)	32.00	high	65.00	☺	15.00 - 26.00	6.00 - 40.00	IU/L
SGPT (ALT)	40.00	High	70.00	☺	0.00 - 26.00	0.00 - 33.00	IU/L
GGT	50.00	high	66.00	☺	18.00 - 35.00	10.00 - 60.00	IU/L
Serum Iron	79.00	low	31.00	☺	85.00 - 120.00	40.00 - 155.00	mcg/dL
Ferritin	13.00	Low	430.00	☺	45.00 - 110.00	15.00 - 150.00	NG/ML
Total Cholesterol	188.00	high	227.00	☺	150.00 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	84.00	★	85.00		50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	63.00	★	43.00		39.00 - 120.00	36.00 - 140.00	mg/dL
VLDL Cholesterol	16.00	★	17.00		5.00 - 20.00	4.00 - 40.00	mg/dL
LDL Cholesterol	87.00	high	111.00	☺	50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	3.00	★	5.20	☺	0.00 - 4.00	0.00 - 5.00	ratio
Triglyceride/HDL Ratio	1.30	★	1.90		0.00 - 2.00	0.00 - 4.00	ratio
TSH	0.40	Low	2.30	☹	0.50 - 3.50	0.45 - 4.50	uIU/mL
T4 Thyroxine	12.00	High	9.80	☹	7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	31.00	★	29.00		29.00 - 35.00	24.00 - 39.00	%
T7 Free Thyroxine Index (FTI)	5.00	High	2.80	☹	2.61 - 3.60	1.20 - 4.90	
CRP C-Reactive Protein	6.70	High	13.00	☺	0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	4.20	low	3.80	☺	5.70 - 8.50	3.40 - 10.80	k/cumm
Red Blood Count	4.90	high	3.80	☺	4.27 - 4.78	3.77 - 5.28	m/cumm
Hemoglobin	11.70	low	10.20	☺	12.50 - 14.50	11.10 - 15.90	gm/dL
Hematocrit	37.00	low	32.40	☺	38.00 - 42.00	34.00 - 46.00	%
MCV	91.00	★	89.00		84.00 - 92.00	79.00 - 97.00	cu.m
MCH	30.20	★	30.90		28.60 - 31.00	26.60 - 33.00	pg
MCHC	34.50	high	37.00	☺	33.20 - 34.50	31.50 - 35.70	%
Platelets	205.00	low	170.00	☺	215.00 - 319.00	155.00 - 379.00	k/cumm
Polys/Neutrophils (SEGS-PMNS)	66.00	high	68.00	☺	51.00 - 63.00	40.00 - 74.00	%
Lymphocytes	24.00	★	23.00	☺	24.00 - 36.00	14.00 - 46.00	%
Monocytes	6.20	★	6.00		5.00 - 7.00	4.00 - 13.00	%
Eosinophils	3.50	high	3.62	☺	0.00 - 3.50	0.00 - 5.00	%
Basophils	0.09	★	1.00		0.00 - 2.00	0.00 - 3.00	%
ESR-Erythrocyte Sed Rate, Westergren	11.00	high	38.00	☺	0.00 - 10.00	0.00 - 32.00	mm/HR
Vitamin D 25-Hydroxy (total)	21.00	Very Low	12.00	☺	50.00 - 90.00	32.00 - 100.00	NG/ML

Name: Ann Onymous **Lab: LabCorp** **Blood Test Results**

Legend: Warning | High Risk | Critical

	Prior Results				
	05/20/2010	09/17/2008	03/22/2007	11/18/2006	05/12/2005
Glucose	93.00	95.00	96.00	99.00	109.00
Hemoglobin A1C (Gly-Hgh)	5.30	4.00		5.60	5.80
Uric Acid		4.00		5.50	5.60
BUN (Blood Urea Nitrogen)		21.00		20.00	20.00
Creatinine		1.20		1.00	1.00
GFR Est.					
BUN / Creatinine Ratio				20.00	20.00
Sodium		138.00		139.00	135.00
Potassium		3.60		4.00	4.30
Chloride		101.00		103.00	101.00
Magnesium		2.40		2.20	2.20
Calcium		9.50		9.30	9.40
Calcium/Albumin Ratio				2.20	2.33
Phosphorus		3.80		3.80	3.90
Total Protein		7.80		7.80	7.00
Albumin		4.30		4.10	4.10
Globulin		3.50		3.70	3.80
A/G Ratio				1.10	1.50
Total Bilirubin				0.50	0.50
Alk. Phosphatase 25-530		90.00	200.00	68.00	88.00
Creatine Kinase		125.00			300.00
LDH			44.00	135.00	99.00
SGOT (AST)		50.00	70.00	40.00	16.00
SGPT (ALT)			70.00	55.00	50.00
GGT		55.00	200.00	70.00	120.00
Serum Iron		80.00		110.00	80.00
Ferritin		10.00		4.00	8.00
Total Cholesterol		200.00		215.00	200.00
Triglyceride		150.00		82.00	200.00
HDL Cholesterol		50.00		45.00	50.00
VLDL Cholesterol		10.00		30.00	10.00
LDL Cholesterol		140.00		140.00	140.00
Total Cholesterol / HDL Ratio		4.00		5.00	4.00
Triglyceride/HDL Ratio					
TSH	2.40				
T4 Thyroxine	10.02			8.00	
T3 Uptake	32.00			31.00	
T7 Free Thyroxine Index (FTI)	3.00			2.40	
CRP C-Reactive Protein	15.01	10.00		22.00	5.00
White Blood Count	7.60	11.00		7.40	8.00
Red Blood Count	3.96	2.20		2.90	5.00
Hemoglobin	9.20	9.50		14.00	14.00
Hematocrit	38.70	31.00		44.00	40.00
MCV	90.00	90.00		89.00	98.00
MCH	30.60	31.00		30.00	33.00
MCHC	35.00	35.00		34.00	36.00
Platelets	255.00	280.00		268.00	460.00
Polys/Neutrophils (SEGS-PMNS)	55.00			55.00	54.00
Lymphocytes	29.00			54.00	47.00
Monocytes	6.50			6.00	4.00
Eosinophils	4.33			4.00	0.00
Basophils	1.00			1.00	0.00
ESR-Erythrocyte Sed Rate, Westergren		20.00		33.00	22.00
Vitamin D 25-Hydroxy (total)					

Name: Ann Onymous **Lab: Doctor's Data #1, (with Ranges)** **Hair Test Results**

Legend: Warning | High Risk | Critical | ★ Optimal | ☺ Improvement | ☹ Worse | Ø No Improvement

Test Description	Current Rating 07/20/2011		Prior 05/20/2011	Delta	Healthy		Clinical		Units
Toxic Elements									
Aluminum	3.80	high	5.00	☺	0-	2.20	2.21-	7.00	ug/g
Antimony	0.02	★	0.05		0-	0.06	0.07-	0.12	ug/g
Arsenic	0.06	High	0.13	☺	0-	0.03	0.04-	0.06	ug/g
Barium	2.00	high	2.12	☺	0-	1.00	1.01-	2.00	ug/g
Beryllium	0.00	★	0.00		0-	0.01	0.02-	0.02	ug/g
Bismuth	0.10	★	0.10		0-	1.00	1.01-	2.00	ug/g
Cadmium	0.08	High	0.10	☺	0-	0.03	0.04-	0.05	ug/g
Lead	2.71	High	5.00	☺	0-	0.40	0.41-	0.60	ug/g
Mercury	2.33	High	4.00	☺	0-	0.50	0.51-	0.80	ug/g
Platinum	0.00	★	0.00		0-	0.00	0.01-	0.00	ug/g
Thallium	0.00	★	0.00		0-	0.00	0.01-	0.00	ug/g
Thorium	0.00	★	0.00		0-	0.00	0.01-	0.00	ug/g
Uranium	0.01	★	0.01		0-	0.03	0.04-	0.06	ug/g
Nickel	0.21	★	0.30	☺	0-	0.25	0.26-	0.30	ug/g
Silver	0.09	★	0.14	☺	0-	0.10	0.11-	0.15	ug/g
Tin	0.22	★	0.25		0-	0.29	0.30-	0.30	ug/g
Titanium	0.30	★	0.60	☺	0-	0.40	0.41-	0.70	ug/g
Total Toxic Representation	2.00	★	3.00	☺	0-	2.00	2.01-	3.00	
Essential Elements									
Calcium	1000.00	high	2,701.00	☺	663.00-	753.00	300.00-	1200.00	ug/g
Magnesium	98.00	high	290.00	☺	53.00-	62.00	35.00-	140.00	ug/g
Sodium	60.00	low	65.00	☹	72.00-	126.00	18.00-	180.00	ug/g
Potassium	17.00	low	19.00	☹	30.00-	53.00	8.00-	75.00	ug/g
Copper	19.00	★	26.00		18.00-	29.00	11.00-	37.00	ug/g
Zinc	142.00	low	163.00	☹	150.00-	170.00	140.00-	220.00	ug/g
Manganese	0.50	high	0.20	☹	0.28-	0.40	0.08-	0.60	ug/g
Chromium	0.28	Very Low	0.16	☺	0.48-	0.57	0.40-	0.65	ug/g
Vanadium	0.04	★	0.06	☺	0.04-	0.05	0.02-	0.06	ug/g
Molybdenum	0.04	★	0.03	☺	0.03-	0.04	0.02-	0.05	ug/g
Boron	1.40	★	1.40		0.65-	2.50	0.40-	3.00	ug/g
Iodine	0.45	low	0.25	☺	0.76-	1.30	0.25-	1.80	ug/g
Lithium	0.01	★	0.00	☺	0.01-	0.02	0.01-	0.02	ug/g
Phosphorus	189.00	★	173.00	☺	173.00-	197.00	150.00-	220.00	ug/g
Selenium	1.20	High	0.98	☹	0.62-	1.03	0.55-	1.10	ug/g
Strontium	2.50	★	2.30		2.00-	2.90	0.50-	7.60	ug/g
Sulfur	45252.00	low	44,879.00	☺	46000.00-	48000.00	44000.00-	50000.00	ug/g
Cobalt	0.02	★	0.01	☺	0.02-	0.03	0.00-	0.04	ug/g
Iron	7.80	low	7.80	Ø	9.00-	13.00	7.00-	16.00	ug/g
Germanium	0.05	High	0.05	Ø	0.03-	0.04	0.03-	0.04	ug/g
Rubidium	0.03	★	0.01	☺	0.02-	0.03	0.01-	0.10	ug/g
Zirconium	0.11	★	0.10		0.07-	0.25	0.02-	0.42	ug/g

VITAMIN AND SUPPLEMENT RECOMMENDATIONS

PATIENT Ann Onymous

SEX: F AGE: 47 WEIGHT: 145

Supplement	Number Per Day
Betaine Plus 496mg	3
Bio Dophilus	1
Calcium MCHC 250mg	2
Chlorella Clean 250mg	4
Glucoset	2
Inflavonoid	2
Iodoral	0.125
Iron (Amino Iron 18mg)	1
Lauricidin	2
Lipogen	2
MagMalic	2
Methyl B12 Plus	3
Multiple Vitamin	2
Nutri E 400IU Forte	1
Opti EPA 500mg	1
Pwdr Vit C 4000mg w/ Ribose	1
Stress B Plus	1
Vital Trace Minerals	2
Vitamin D 5000IU	1

Personal Vitamin and Supplement Program For:
Ann Onymous

2 Month Supply

	Vitamin or Supplement	Dosage Per Day	AM	NOON	PM	BED	Bottles	Quantity		Price	Extended Price
1	Calcium MCHC	750 mg.	1	1	1		1	250	@	$24.35	$24.35
2	Chlorella Clean	1000 mg.	2		2		1	180	@	$22.90	$22.90
3	Inflavonoid (Turmeric)	900 mg.	1		1		1	180	@	$31.68	$31.68
4	Iron Peptonate [Ferrotate Jr]	25 mg.	1				1	100	@	$16.04	$16.04
5	Mag Malic	2	1		1		1	180	@	$21.43	$21.43
6	Natural Vit E Complex	400 I.U.	1				1	100	@	$12.62	$12.62
7	Opti EPA (Fish Oil)	500 mg.				1	1	60	@	$14.62	$14.62
8	Silymarin (Milk Thistle Extract)	450 mg.	1	1	1		1	90	@	$14.60	$14.60
12	Vital Trace Minerals	2	1		1		1	180	@	$16.83	$16.83
9	Stress B Plus (B-Complex)	50 mg.	1				1	90	@	$11.36	$11.36
10	Sublingual B12FA	3	1	1	1		1	180	@	$11.68	$11.68
11	Ultra Preventive III (Multiple)	2	1		1		1	180	@	$24.30	$24.30
13	Vitality C Pwdr + Ribose	See Instructions Below					1	31	@	$42.88	$42.88

Specialty / Instructions
Mix 1 teaspoon of powder with 8 ounces of water, take with your morning meal and duplicate for evening meal.

Sub Total	$265.29
Tax	$18.57
Total	$285.19

Supplements Must Be Paid In Full Upon Receipt
Take All Supplements With Meals Unless Otherwise Noted

Wednesday, February 03, 2010

The main thing going over the report: Keep it Simple

- The doctor does a 'show and tell'
- These are the problems you have
- This is what you need to fix them
- You can buy these at a health food store
- You can also get the vitamins here, **these are the ones we have experience with and have shown to do the job**
- "Would you like to buy some vitamins now?"
- The main thing is retesting to make sure whatever you take is working

The key to compliance

- It is the initial objective testing, comprehensive report and Vision or anticipation of improvement that drives compliance. Now patients have an objective outcome that they can see with retesting.
- Now they are motivated to:
  - Take the vitamins
  - Follow the diet
  - To retest

Key point: Patients do want to get better

- This is why they came to you in the first place.
  - If your patients are not doing the testing, not taking the vitamins or retesting then it is obvious that they have not been convinced of your ability to help them. They may let you down easy and say that they can't afford it, but rarely is that truly the case.
  - This is difficult for most doctors to accept. They usually blame the patients instead of looking at themselves and what they are doing.

Patient Questions

- What does the 'Red' SGOT mean?
- What does anemia mean?
- Why am I taking Chlorella?
- What am I taking for anemia?
- Where am I getting arsenic?
- Are the drugs I'm on causing problems?
- How much calcium do I need?
- What can or can't I eat?
- Do I need all of these vitamins?
- How long will I need these vitamins?
- "The answers are all in the report. I don't expect you to remember it all, which is why we wrote it all down for you. Go home and read over it a couple of times and "I" will call you in a couple of days to answer your questions."

- **Angela; Age 57; 06/20/2002 first test**
  - Symptoms: Alopecia, Hot Flashes, High Cholesterol
  - Unable to lose weight, even walking 4 miles a day; no medications

Test Description / Date	Our Test 8/23/2002	Rating	Different Test 6/20/2002	Healthy	Clinical	Units
Glucose	186.00	HI	128.00	84.10 - 100.00	65.00 - 109.00	mg/dl
Hemoglobin A1C(Gly-Hgh)	8.30	HI		4.61 - 5.40	4.50 - 5.70	%
Uric Acid	5.30	Opt		4.10 - 6.00	2.40 - 8.20	mg/dl
Blood Urea Nitrogen (BUN)	18.00	hi	18.00	13.10 - 18.00	5.00 - 26.00	mg/dl
Creatinine	0.70	Opt	0.70	0.61 - 0.90	0.50 - 1.50	mg/dl
BUN / Creatinine Ratio	25.00	HI	26.00	13.10 - 17.00	7.50 - 18.50	ratio
Sodium	137.00	lo	141.00	140.10 - 144.00	135.00 - 148.00	meq/dl
Potassium	4.10	Opt	4.10	3.91 - 4.60	3.50 - 5.50	meq/dl
Chloride	100.00	lo	100.00	100.10 - 106.00	96.00 - 109.00	meq/dl
Magnesium	2.00	lo		2.21 - 2.50	1.60 - 2.60	mg/dl
Calcium	9.90	Opt	10.00	9.71 - 10.10	8.50 - 10.60	mg/dl
Phosphorus	4.00	hi		3.41 - 4.00	2.50 - 4.50	mg/dl
Calcium / Albumin Ratio	2.20	Opt		2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	7.80	hi	8.10	7.11 - 7.61	6.00 - 8.50	gm/dl
Albumin	4.50	Opt	4.70	4.10 - 4.51	3.50 - 5.00	gm/dl
Globulin	3.30	Opt	3.40	2.81 - 3.51	1.50 - 4.50	gm/dl
A / G Ratio	1.30	Opt	1.40	1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.40	Opt	0.60	0.39 - 0.93	0.10 - 1.20	mg/dl
Alkaline Phospatase	93.00	hi	84.00	60.10 - 85.10	25.00 - 165.00	mu/ml
LDH	192.00	hi		120.10 - 160.00	100.00 - 250.00	mu/ml
SGOT (AST)	47.00	HI	43.00	18.10 - 26.00	6.00 - 40.00	mu/ml
SGPT (ALT)	87.00	HI	79.00	18.10 - 26.00	6.00 - 40.00	mu/ml
GGT	393.00	HI		10.10 - 36.00	6.00 - 65.00	mu/ml
Serum Iron	85.00	lo		85.10 - 120.00	35.00 - 155.00	mcg/dl
Ferritin	281.00	hi		30.10 - 218.30	22.00 - 322.00	ng/ml
Cholesterol	335.00	HI	325.00	150.10 - 180.00	100.00 - 199.00	mg/dl
Triglyceride	217.00	HI	173.00	80.10 - 115.00	10.00 - 199.00	mg/dl
HDL Cholesterol	56.00	Opt	61.00	55.10 - 120.00	40.00 - 150.00	mg/dl
LDL Cholesterol	235.00	HI	229.00	50.10 - 75.00	6.00 - 99.00	mg/dl
VLDL	43.00	HI		5.10 - 20.00	4.00 - 40.00	mg/dl
Total Cholesterol / HDL Ratio	5.90	HI		-0.01 - 4.00	-0.02 - 5.00	ratio
T4	6.90	lo		7.10 - 9.00	4.50 - 12.00	mcg/dl
T3	30.00	lo		35.10 - 40.00	24.00 - 39.00	%
T7	2.00	lo		2.61 - 3.60	1.20 - 4.90	
White Blood Count	6.50	Opt	5.90	5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.60	Opt	4.79	4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	13.70	lo	13.90	13.91 - 15.00	11.50 - 17.00	gm/dl
Hematocrit	40.20	Opt	40.50	39.51 - 47.00	34.00 - 50.00	%
MCV	86.00	Opt	84.50	85.10 - 97.00	80.00 - 98.00	cu.m
MCH	29.40	Opt	28.90	28.10 - 32.00	27.00 - 34.00	pg
MCHC	34.10	Opt	34.20	33.10 - 34.99	32.00 - 36.00	%
Platelets	236.00	Opt	254.00	175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	64.00	Opt	60.00	55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	27.00	Opt	27.60	25.10 - 40.00	14.00 - 46.00	%
Monocytes	5.00	lo	8.10	5.10 - 7.10	4.90 - 13.00	%
Eosinophils	4.00	hi	3.50	-0.01 - 4.00	-0.02 - 7.00	%
Basophils	0.00	Opt	0.80	-0.10 - 0.00	-0.02 - 3.00	%
Erythrocytes Sed Rate ESR	9.00	hi		-0.01 - 8.00	-0.02 - 30.00	mm/HR
CRP C-Reactive Protein	9.60	HI		-0.01 - 0.00	-0.02 - 4.90	mg /L
Creatine Kinase	75.00	Opt		50.50 - 150.00	24.00 - 204.00	u/l

Getting started: Do the UA

- Rule out: serious infection, possible kidney and liver disease, diabetes, etc.

UA Screening

- 8/27/2005 - Hi, Dr. Merkle and Tracey,
  Just thought I'd let you know that I had a free UA day in the office yesterday. We marketed it as "Our gift of health to you." Of course, not all chiro patients wanted to have a UA done. But, we did roughly 35 UA's. The ones that were abnormal were scheduled for retesting as necessary and given the proper recommendations. **Because of the UA day, we sold over $300 in product** (Bio-Dophilus, Lacto-Key, Lauricidin, Cranberry tablets, and Vitamin C). Most importantly, it **heightened AWARENESS among our patients** about their health. And, my staff LOVED IT. They had a blast doing them. We have also added the UA as part of our chiro new patient protocol. We are doing a Gift of Health each week. Next week is Happy Heart Thursday where we will be doing BP all day for free.
  Also, the following gift of health is going to be O2 testing. Thank you both so much for all that you do. **I am so grateful for the marketing help I got at SBN 2. I am having much better luck with getting people to retest.** Like I have said a million times...I think you guys are great.
  Sincerely, Dawn Cadwallader

CBC

- Major function of RBC: transport hemoglobin which carries oxygen from lungs to tissues and carbon dioxide from the tissues to the lungs.
- Hemoglobin (protein): when free in the plasma (due to rupture or destruction of RBC's) ~3% is lost through the kidney.
- Hemoglobin in RBC's is responsible for ~ 70% of acid-base buffering power of whole blood.
- RBC is a "bag" that can be deformed into almost any shape, this does not stretch the membrane and consequently does not rupture the cell.
- Middle trimester of gestation: liver is main producer of RBC', some produces in the spleen and lymph nodes.
- Latter gestation and after birth, RBC produced exclusively by bone marrow.

- **Red Blood Cell Count:**
  - Bone Marrow of all bones produce RBC's till age 5.
  - After age 20 only marrow of membranous bones of vertebrae, sternum, ribs and pelvis produce RBC.
  - Important point: Marrow that has already stopped producing red blood cells can once again become productive, and marrow that is still producing red blood cells becomes greatly hyperplastic and produces far greater than normal quantities. Even the spleen and liver may re-establish their ability to produce RBC's when extreme stimuli persist for prolonged periods of time.
  - Primordial Stem cells continually make hemocytoblasts which continually make RBC's.
  - The hemocytoblast like the Stem cell can reproduce itself again and again.
  - **Tissue oxygenation determines RBC production.**

CBC, Anemia, and Kidney

- Erythropoietin:
  - Believed to be released by the kidney in response to hypoxia.
  - Stimulates the bone marrow to produce RBC's.
  - Without kidneys, chronic advanced anemia develops due to extremely low levels of circulating erythropoietin.
  - With extreme quantities of erythropoietin, RBC production can rise to 10 times normal.
  - Many Cancer patients who have chemo and/or radiation will be given erythropoietin in a drug called Procrit or Epogen.
  - Procrit and Epogen are produced by mammalian cells into which the human erythropoietin gene has been introduced (Recombinant DNA), also has human albumin.

Epogen/Procrit/Aranesp

- ESAs shortened overall survival and/or time to tumor progression in clinical studies in patients with breast, non-small cell lung, head and neck, lymphoid, and cervical cancers

Focus on the Elements – Red Blood Count

- Clinical range 4.4 -5.6 Healthy range 4.5-5.5. Anisocytosis- variation in size of RBC's.

DECREASED in:

Bleeding
Hemolysis
Deficient marrow production
Anemias
Pernicious anemia- deficiency of B12 and folic acid
Chronic kidney disease
Chronic liver disease

Environmental:

Lead poisoning
Organic phosphate pesticides: Diazinon, Malathion and carbamates (carbaryl)

Drugs: NSAIDS

INCREASED in:

Smoking
Polycythemia vera
Renal cyst
Renal carcinoma
Chronic inflammatory disease
Collagen disease
Vascular disease
Postoperative
Postpartum
High altitudes
Exercise

Drugs: Procrit or Epogen

Nutrient Recommendations:

B12, Folic Acid, minerals, iron

Nutrients Necessary for RBC Production

- Iron
- Cyanocobalamine B12
- Folic acid
- Copper
- Pyridoxine B6
- Cobalt Note: nickel can displace cobalt
- Amino acids
- L-Carnitine
- Specialty formulas
  - Sublingual B12 Plus Folic Acid - Douglas Labs
  - Ferronyl 9mg – Douglas Labs

Focus on the Elements - Hemoglobin

Clinical range 12.5 -16gm/dl 18gm/dl. **Healthy range** 14 -15mg/dl. **CRITICAL RANGE**: less than 5gm/dl and over

Measured amount of intra-cellular iron to evaluate anemia, blood loss, hemolysis, polycythemia and other conditions

DECREASED in:

- Anemia
- Pregnancy
- Chronic Lymphocytic Leukemia
- Multiple myeloma
- Acute rheumatic Fever
- Thrombotic Thrombocytopenic Purpura

Drugs:

Nutrients to consider: iron

INCREASED in:

- **Hemochromatosis**
- Dehydration
- Polycythemia
- Cardiovascular disease
- Risk of stroke Increased morbidity Alcoholics
- Hyperlipidemia

Focus on the Elements – Hematocrit

Clinical range 38 - 49% **Healthy range** 40 - 47%. **CRITICAL RANGE**: less than 15% and over 60%.

Percent of whole blood that is red blood cells.

Note: 51% or higher has been noted to increase the risk of stroke. Very high levels are associated with increased morbidity and mortality from cardiovascular disease.

DECREASED in:

- Anemia
- Blood loss
- Hemolytic anemia
- Congestive heart failure
- Pancreatitis
- Pregnancy

Nutrients to consider:

- B12 and folic acid

INCREASED in:

- **Hemochromatosis**
- Dehydration
- Polycythemia

Focus on the Elements – MCV

Clinical range 82 - 99cu.m **Healthy range** 85 - 97cu.m.

Mean corpuscular volume is the size (volume) of the average red cell.

When new red blood cells are formed they are larger and will have an increased MCV, MCH and MCHC, as they age, they shrink and get smaller reducing these values.

DECREASED in: (microcytosis-

- Microcytosis microcytic anemia)
- Chronic hemodialysis
- Intracellular iron deficiency
- Anemia of chronic disease
- Thalassemia syndrome
- Pyridoxine deficiency

Environmental:

- Aluminum toxicity
- Lead poisoning

Nutrients to consider:

- B6 (pyridoxine) and iron

INCREASED in:

- Macrocytosis Macrocytic Anemia
- B12/folate deficiency
- Pernicious anemia
- Alcoholics
- Diabetic Ketoacidosis
- Cell dehydration

Drugs:

- Zidovudine (AZT) treatment of AIDS

Nutrients to consider:

- B12 and folic acid

Focus on the Elements – MCH

Clinical range 27.50 - 32.50pg **Healthy range** 27.00 - 31.00pg.

Mean corpuscular hemoglobin is the weight of hemoglobin in the average red cell.

DECREASED in:

Iron deficiency anemia

Nutrients to consider:

Iron, B12 and folic acid

INCREASED in:

Pernicious anemia
B12/folic acid deficiency
Chronic inflammation
Acute blood loss
Polycythemia Alcoholics
Hereditary spherocytosis

Focus on the Elements – MCHC

Clinical range 32.00 - 36.00% **Healthy range** 32.00 - 34.00%.

Mean corpuscular hemoglobin concentration is the amount of hemoglobin present in the average red cell as compared to its size.

DECREASED in:

Iron deficiency anemia

INCREASED in:

Pernicious anemia
B12/folic acid deficiency
Hereditary spherocytosis
Chronic inflammation
Acute blood loss
Polycythemia

RDW Ranges

- Clinical 13-15%; Healthy 13.5-14.5; Critical 11-17
- RDW stands for red cell distribution width.
- It is a measure of variability or non-uniformity in erythrocyte size across a given sample. The RDW is normally low (normal range 12-15%), but higher values may be indicative of significant heterogeneity in RBC size, a condition sometimes referred to as anisocytosis.
- An elevated RDW is the first hematological manifestation of iron deficiency anemia, and hence a very sensitive screening test for that particular disorder.

Focus on the Elements – RDW

Clinical range: 11.5 - 14.5 RDW is an electronic measurement of Anisocytosis (red cell size variability).

INCREASED IN:

Iron deficiency anemia
Beta Thalassemia minor
Pernicious anemia
B12 and folate deficiency

Nutrients to consider:

B12, Folic acid and iron

B12 testing and information Methylmalonic Acid (MMA)

- MMA measurement is used as a diagnostic test for vitamin B12 deficiency in persons with a low or low normal serum vitamin B12 concentration.
- MMA concentrations will often become elevated in the early stages of vitamin B12 deficiency even when vitamin B12 levels are normal or a little low.
- Conversely, MMA will be low with excess B12.

Folic Acid and Methylfolate and MTHFR

- Folic Acid: If anemia presents with elevated levels of serum folic acid and/or homocysteine then further testing is indicated and **Methylfolate** will likely be required.
- MTHFR stands for methylenetetrahydrofolate reductase – an enzyme that activates folic acid by adding a methyl group to it.
- Activated folate (named 5MTHF) goes on to give its methyl group to other nutrients and substances – a process called "methylation." It is required for the creation of every cell in your body.
- 5MTHF, along with several other nutrients, is also used to create and process neurotransmitters (messengers in the nervous system like serotonin, epinephrine, norepinephrine, and dopamine); create immune cells and process hormones (such as estrogen); as well as to produce energy and detoxify chemicals.
- Deficiencies in production or function of this enzyme have also been associated with increased risk of myocardial infarction, stroke, venous thrombosis, several types of cancer, congenital defects, inflammatory bowel disease, and several neuropsychiatric conditions. Other significant roles of a properly functioning MTHFR enzyme include nucleic acid biosynthesis, neurotransmitter synthesis, and production of signaling molecules important for **regulating embryonic development.**

Hemolysated Folate: RBC Folate

- The RBC Folate levels are less sensitive to short-term dietary effects than are serum folate levels.
- Red blood cell folate concentration is considered the most reliable indicator of folate status.
- The folates are water soluble vitamin compounds containing pteroylglutamic acid (PGA), which functions as coenzymes in metabolic reactions,
- Folate, with vitamin B12, is essential for DNA synthesis, which is required for normal red blood cell maturation.
- Folate comes from dietary sources including fruits, green and leafy vegetables, yeast, and organ meats.
- Folate is absorbed through the small intestine and stored in the liver.
- Low folate intake, malabsorption, GI dysfunction or diseases, pregnancy, and various drugs including phenytoin (Dilantin) are causes of folate deficiency. Folate deficiency is also associated with chronic alcoholism.
- Folate and vitamin B12 deficiency impair DNA synthesis, causing macrocytic anemias. These anemias are characterized by abnormal maturation of red blood cell and decreased red blood cell survival.
- Both folate and vitamin B12 deficiency can cause macrocytic anemia. Folate is much more concentrated in red blood cells than in serum so the red blood cell folate measurement more closely reflects tissue stores.
- RBC folate levels are less sensitive to short-term dietary effects than are serum folate levels. Red blood cell folate concentration is considered the most reliable indicator of folate status.
- Low serum folate during pregnancy has been associated with neural tube defects and cleft palate in the fetus.

- One of the major effects is **greatly increased work load on the heart**
- Low viscosity (due to low concentration of RBC) causes greater quantity of blood return to the heart
- Hypoxia causes vessels dilation further increasing quantity of blood returning to the heart
- Both cause increasing cardiac output to such an extent that almost normal quantities of oxygen is delivered to the tissues.

- Blood loss Anemia: Can't absorb iron as fast as hemoglobin is low, Aplastic Anemia: Bone Marrow depression (Aplasia due to radiation, chemo, drugs, environmental toxins

- **Maturation Failure Anemia (Pernicious anemia):** Most common due to deficiency of B12 and folic acid. Can also be due to intestinal sprue or decreased intrinsic factor from the stomach mucosa due to atrophy or loss of part or all of stomach (think drugs that directly affect the stomach Aspirin, antacids, Prilosec, Prevacid) this may result in macrocytosis , bizarre shapes and easily ruptured
- **Hemolytic Anemia:** abnormalities of RBC's, number of RBC's may be normal, cells are fragile and rupture easily even going through the spleen. The spleen is sometimes removed for this.
- **Hereditary spherocytosis:** spherical rather than biconcave RBC
- **Sickle cell anemia:** abnormal composition of hemoglobin. When the hemoglobin is exposed to low concentrations of O2 it precipitates into long crystals inside the red blood cell. These crystals elongate the cell and give it a sickle appearance. The crystals damages the cell membrane which is highly fragile, leading to serious anemia. The sickling causes impediment of blood flow causing still further decrease in oxygen tensions. Once this process starts, it can progress rapidly, leading to serious decrease in red blood cell mass within a few hours and, often, to death.
- **Thalassemia:** small cells and have fragile membranes, that are easily ruptured
- **Polycythemia:** too many Blood cells RBC's, WBC's and Platelets

- Decreased tissue oxygenation is the basic stimulus of RBC production

  - Cardiac failure
  - Lung disease
  - Smoking
  - Renal cyst
  - Renal carcinoma
  - Collagen disease
  - Vascular disease
  - Postoperative
  - Postpartum
  - High altitudes
  - Exercise
  - Polycythemia vera (tumorous condition of marrow)

- Polycythemia vera is a tumorous condition of the marrow or organs that produce blood cells
- Polycythemia results in increased viscosity and sluggish blood flow and decreased rate of venous return to the heart. Due to increased blood volume the cardiac output is not far from normal because these two factors neutralize each other.
- Hypoxia seen with polycythemia and reduced blood flow can give a bluish (cyanotic) tint to the skin.

Focus on the Elements – Serum Iron

Clinical range 50-160mcg/dL **Healthy range** 85-125mcg/dL

The ESR is usually normal in iron deficiency anemia. The ESR is usually elevated in acute or chronic disease combined with iron deficiency anemia.

INCREASED in:

Hemochromatosis: check ferritin levels
Iron poisoning: may cause black stools.
Dialysis
Hepatitis

Drugs:

Dextran
Birth control pills
Estrogen
Progestin
Chloramphenicol

Nutrients to consider: Based on other values and CBC.

DECREASED in:

Serum iron levels below 85mcg/dL: do a stool analysis and urinalysis.
Iron deficiency; Glycohemoglobin A1-C increase
Hypothyroidism
Anemia: the platelet count may be increased.
Blood loss; Poor iron absorption
Gastritis; Protein deficiency; Chronic infection, Inflammation
Cancer
Kidney disease; Malnutrition; Celiac sprue Chronic disease
Increased serum copper (Wilson's disease)
Childhood anemias that may require iron and copper Failure to thrive in infants
Pregnancy and lactation

Drugs: ACTH

Nutrients to consider: iron, B12 & folic acid

Science Based Nutrition – Vitamin Guidelines and Weight Considerations

- A vitamin/nutrient listed does not mean is it recommended for any condition including pregnancy.
- Any vitamin/nutrient may cause a reaction or sensitivity of some kind in any individual.
- Any dosage recommendation is a general recommendation and is not to be considered an absolute. Many factors may dictate a need to modify the guidelines.
- Different vitamin companies may have higher or lower levels and combinations of nutrients that make it difficult getting the 'exact' dosage to match the levels listed here. More severe conditions may require higher levels than are recommended here.

Science Based Nutrition – Vitamin Guidelines and Weight Considerations

Nutrient	Tablet dosage	Daily dose: 50-110lbs	110-190lb	over 190lbs
Acidophilus	1 billion	2 caps	3 caps	3 caps
Adrenal Glandular	80mg	80	160	240
Anterior Pituitary	35mg	35	70	105
Arginine (L)	500mg	500	1,000	1,500
Ascorbic Acid	1tsp=4gms:	based on condition		
Vit C	1,000mgs	2,000	3,000	4,000
B-Complex	50mg	50	100	150
B-12/Folic acid	1,000mcg/400mcg	2,000	3,000	4,000
B-6		50mg	200mg	500mg
Betaine HCL	325 mg	based on condition		
Beta-Carotene	25,000IU	25K	50K	75K
Bromelain	500mg	1,000	2,000	3,000
Calcium MCHC	250mg	500	750	1,000
Carnitine (L)	300mg	300	600	900
Chlorella/Spirulina	250mg/250mg	500	750	1,000
Choline	640mg	640	1280	1920
Chromium Picolinate	250mg	250	500	750
CoQ10	50mg	150	200	250
Vit D	5,000IU	2,500	5000	5000
EPA/DHA	180mg/120mg	180	360	540
Vit E + Selenium	400IU, 50mcg	400	800	1200
Folic Acid	800mcg	800	1600	2400
GLA (Borage oil)	240mg	240	240	240
Garlic	500mg	500	1000	1500
Germanium	150mcg	50	100	150

Nutriet	Tablet dosage	Daily dose: 50-110lbs,	110-190lb,	over 190lbs
Glucosamine	500mg	500	1000	1500
Glutamine	500mg	1000	1500	2000
Inositol	320mg	320	640	960
Iron	Based on condition			
Lauricidin	1/4tsp	1tsp	1.5tsp	2tsp
Lithium	50mcg	10mcg	25mcg	50mcg
Liver glandular	500mg	1000	2000	3000
Manganese	50mg	25	50	100
Magnesium Glycinate	100mg	200	300	400
Magnesium/Malic Acid	100mg/400mg	200	300	400
Methionine (L)	500mg	500	1000	1500
Minerals (Spectramin Chelate)		1	2	3
Niacin	250mg	250	500	750
Niacinamide	500mg	500	1000	1500
Norwegian Sea Kelp	.15mg iodine	.45	.75	.90
Pancreatic Enzymes: combination of:		1	2	3
Lipase 10K, Amylase 50K, Protease 50K				
Pantothenic Acid	250mg	500	1000	1500
Potassium	99mg	50	99	150
Selenium	200mcg	100	200	300
Silymarin, Milk Thistle	150mg	150	300	450
Thymus	140mg	140	280	320
Turmeric	450mg	900	1800	2700
Tyrosine (L)	500mg	1000	1500	2000
Vanadium	250mcg	100	250	500
Zinc	50mg	25	50	75

Anemia Worksheet

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7
Serum Iron	low, Dx 1						
Ferritin							
WBC							
RBC	low, Dx 1						
Hgb	low, Dx 1						
Hct	low, Dx 1						

	Condition	Consideration
Test 1		
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7
Serum Iron	low, Dx 1						
Ferritin							
WBC							
RBC	low, Dx 1						
Hgb	low, Dx 1						
Hct	low, Dx 1						

	Condition	Consideration
Test 1	**Dx 1:** Iron Deficiency Anemia, Blood Loss **Nutrients for DX 1:** Iron, B12/Folic Acid	UA, Stool, Kidney What dosage of Nutrients?
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7
Serum Iron	low, Dx 1	LOW, Dx 1					
Ferritin							
WBC		HIGH, Dx 2					
RBC	low, Dx 1	LOW, Dx1					
Hgb	low, Dx 1	low, Dx 1					
Hct	low, Dx 1	low, Dx 1					

	Condition	Consideration
Test 1	**Dx 1:** Iron Deficiency Anemia, Blood Loss **Nutrients for DX 1:** Iron, B12/Folic Acid	UA, Stool, Kidney
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7
Serum Iron	low, Dx 1	LOW, Dx 1	low, Dx 1				
Ferritin			HIGH, Dx 1 & Dx 2				
WBC		HIGH, Dx 2	HIGH, Dx 2				
RBC	low, Dx 1	LOW, Dx1	LOW, Dx 1				
Hgb	low, Dx 1	low, Dx 1	low, Dx 1				
Hct	low, Dx 1	low, Dx 1	low, Dx 1				

	Condition	Consideration
Test 1	**Dx 1:** Iron Deficiency Anemia, Blood Loss **Nutrients for DX 1:** Iron, B12/Folic Acid	UA, Stool, Kidney
Test 2	**Dx 1:** Iron Deficiency Anemia, Blood Loss **Nutrients for DX 1:** Iron, B12/Folic Acid **Dx 2:** Possible Infection **Nutrients for DX 2:** Lauricidin, Vit C, Echinacea, Acidophilus	UA, Stool, ESR, Kidney
Test 3	**Dx 1:** Iron Deficiency Anemia **Nutrients for Dx 1:** Iron, B12/Folic Acid **Dx 2:** Possible Infection/Inflammation **Nutrients for Dx 2:** Lauricidin, Vit C, Echinacea, Acidophilus, Inflavonoid	**Consideration for Dx 1:** Liver, Metals, Kidney, Stool, UA **Consideration for Dx 2:** ESR

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	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7
Serum Iron	low, Dx 1	LOW, Dx 1	low, Dx 1	LOW, Dx 1	VLOW, Dx 1	VLOW, Dx 1	LOW, Dx 1
Ferritin			HIGH, Dx 1 & Dx 2	low, Dx 1	LOW, Dx1	HIGH, Dx 2	LOW, Dx 1
WBC		HIGH, Dx 2	HIGH, Dx 2		LOW, Dx 1		VLOW, Dx 1
RBC	low, Dx 1	LOW, Dx1	LOW, Dx 1	LOW, Dx 1	VLOW, Dx 1	VLOW, Dx 1	VLOW, Dx 1
Hgb	low, Dx 1	low, Dx 1	low, Dx 1	LOW, Dx 1	VLOW, Dx 1	HIGH, Dx 2	VLOW, Dx 1
Hct	low, Dx 1	low, Dx 1	low, Dx 1	LOW, Dx 1	VLOW, Dx 1	HIGH, Dx 2	VLOW, Dx 1

Test 4	**Dx 1:** Severe Anemia, Blood Loss **Nutrients for Dx 1:** B12/Folic Acid, Iron, Carnatine, Chelated Minerals	Check Metals, Liver, Kidney, Stool, UA
Test 5	**Dx 1:** Severe Anemia, Blood Loss, Check Metals and Liver, Bone Marrow Depression **Nutrients for Dx 1:** Iron, B12/Folic Acid, Trace Minerals	Dosages?
Test 6	**Dx 1:** Severe Anemia **Dx 2:** Hemochromatosis	
Test 7	**Dx 1:** Severe Anemia, Check Liver, Metals, Suspect Cancer/ Cancer Tx, Blood Loss **Nutrients for Dx 1:** B12/Folic Acid, Iron, Trace Minerals	Drugs, Cancer, UA, Stool

TAKE 2 HEALTHCARE

Van D. Merkle, D.C., D.A.C.B.N., D.A.C.B.I., C.C.N.

Nutrition Patient Questionnaire

Patient#_____ Date_____

Classification_____ SS# _____

Name_____Date of Birth _____

Address_____City/State _____

Email_____Zip Code_____

Telephone: Home_____Work_____

Place of Employment_____Occupation_____

Married Single Divorced Widow(er)_____# of Children_____

Spouse's Name_____Place of Employment _____

In Case of Emergency, who should we contact?

Name_____Phone_____Relationship_____

How did you hear about our office? _____

We will provide a receipt for you to submit to your insurance. You are responsible for payment in full at the time of service.

** I clearly understand that all services rendered me are my responsibility and payment is expected at the time of service.

Patient's Signature_____Date _____

If under 18 years of age, parent or guardian's signature _____

Nutritional Informed Consent

According to the Federal Food, Drug, and Cosmetic Act, as amended, Section 201 (g) (1), the term "DRUG" is defined to mean: *"Articles intended for use in the Diagnosis, Cure, Mitigation, Treatment or Prevention of disease."*

A vitamin is not a drug, NEITHER is a Mineral, Trace Element, Amino Acid, Herb, or Homeopathic Remedy.

Although a Vitamin, a Mineral, Trace Element, Amino Acid, Herb or Homeopathic Remedy may have an effect on any disease process or symptoms, this does not mean that it can be misrepresented, or be classified as a drug by anyone.

Therefore, please be advised that any suggested nutritional advice or dietary advice is not intended as a primary treatment and/or therapy for any disease or particular bodily symptom.

Nutritional counseling, vitamin recommendations, nutritional advice, and the adjunctive schedule of nutrition is provided solely to upgrade the quality of foods in the patient's diet in order to supply good nutrition supporting the physiological and biomechanical processes of the human body. Nutritional advice and nutritional intake may also enhance the stabilization of chiropractic adjustments and treatment.

Part 2: Informed Consent

Nutritional Informed Consent

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I have read and understand the above:
Signature _____ Date _____

Complete copy of PSS available at www.Take2Healthcare.com

Patient Symptom Survey

DATE_____
PATIENT'S NAME_____AGE_____
WEIGHT_____HEIGHT_____BLOOD PRESSURE_____PULSE_____
This is a confidential patient symptom survey. Please check each condition which is true for you. If the condition does not apply to you or you do not understand a term or if you are not sure if a condition applies to you, then do not check the box. Use common sense. For example, Insomnia once in the last month probably isn't that important and would not be marked. However, Insomnia occurring 1-2 times per week is notable and would be marked. Please take your time…

090 ☐ General Good Health
091 ☐ Desires Nutritional & Metabolic Analysis
001 ☐ Skin Disorder L25.9
002 ☐ Acne L70.8
003 ☐ Psoriasis L40.8
004 ☐ Urticaria (Hives) L50.9 #1
005 ☐ ADD/ADHD F90.1/F90.9
006 ☐ Allergies, Unspecified J30.9
007 ☐ Allergic Rhinitis from food J30.5
008 ☐ Sinusitis J01.90
009 ☐ Alzheimer's G30.9
010 ☐ Poor Concentration/Memory F07.8
011 ☐ Parkinson's Disease G20
012 ☐ Anemia D64.9
013 ☐ Arthritic Disorder M12.9 #4
014 ☐ Osteoporosis M81.0
015 ☐ Asthma J45.909
016 ☐ Emphysema J43.9
017 ☐ Cancer
018 ☐ Breast C50.919female C50.929male
019 ☐ Prostate C61

039 ☐ High Blood Pressure I10
040 ☐ Low Blood Pressure I95.9
041 ☐ Tachycardia (High Heart Rate) R00.0
042 ☐ Numbness R20.9
043 ☐ Constipation K59.00
044 ☐ Indigestion K30
045 ☐ Ulcerative Colitis K51.90
046 ☐ Depression F32.9
047 ☐ Diabetes Mellitus E11.9
030 ☐ Diabetes Type I E10.9
031 ☐ Diabetes Type II E11.65
029 ☐ Hyperglycemia [high blood sugar] R73.09
048 ☐ Hypoglycemia [low blood sugar] E16.2
049 ☐ Dizziness/Balance Problem R42
050 ☐ Ear Infection H65.90
051 ☐ Epstein Barr B27.90
052 ☐ Eye Problems H57.13
053 ☐ Cataracts H26.9

063 ☐ Prostate Disorder N42.9
069 ☐ Hyperthyroidism E05.90
070 ☐ Hypothyroidism E03.9
071 ☐ Systemic Lupus M32.10
072 ☐ Infertility, female N97.9
073 ☐ Interstitial Cystitis N30.11
074 ☐ Irregular Menstrual Cycle N92.6
075 ☐ Menopausal Symptoms N95.1
076 ☐ Hot Flashes N95.1 #3
077 ☐ Mental Disorder F99
078 ☐ Insomnia G47.00
079 ☐ Mouth/Throat/Tongue
080 ☐ Canker Sores K12.0
081 ☐ Overweight E66.3 #2
082 ☐ Underweight R63.6
083 ☐ Sexual Disorder F66
084 ☐ Spinal Problems M53.9
085 ☐ Obesity E66.9
086 ☐ GERD K21.9
087 ☐ HIV B20
088 ☐ Crohn's Disease K50.90
089 ☐ Irritable Bowel Syndrome K58.9

General Health

100 ☐ Fingernail base is pink
101 ☐ Fingernail base is purple
102 ☐ Fingernails have ridges or white spots
103 ☐ Fingernails are soft
104 ☐ Fingernails are splitting
105 ☐ Fingernails peel
106 ☐ Pale fingernail beds
107 ☐ Blacks out easily
108 ☐ Balance problems
109 ☐ Difficulty walking
110 ☐ Has tattoos
111 ☐ Brittle hair
112 ☐ Dry hair
113 ☐ Thin hair
114 ☐ Hair loss
115 ☐ Drinks alcoholic beverages daily
116 ☐ Drinks less than 8 glasses of water per day
117 ☐ Currently on Chemotherapy
118 ☐ Currently on radiation treatment
119 ☐ Had chemotherapy in the past
120 ☐ Has had radiation treatments in the past
121 ☐ Gained over 20 lbs in the last 12 months
122 ☐ Somewhat Overweight
123 ☐ Somewhat Underweight
124 ☐ Unexplained loss of >20lbs in last 4 months
125 ☐ Energy level is worse than it was 5 years ago
127 ☐ Sleeps less than 6 hours per night
128 ☐ Unable to recall dreams the next day
129 ☐ Sensitive to chemicals, paint, fumes, cologne
130 ☐ Had blood transfusion in the past
131 ☐ Had transplant in the past
138 ☐ Takes anti-rejection drugs
132 ☐ Had a major accident or injury
137 ☐ Sleep Apnea
139 ☐ Toxic chemical exposure
175 ☐ Has been out of the country recently
176 ☐ Had childhood vaccines
177 ☐ Had a vaccine in the last 12 months
147 ☐ Had a flu shot last year
182 ☐ Had a pneumonia vaccine last year
183 ☐ Had a Hepatitis B vaccine in the last 2 years

Has a family history of:
184 ☐ Cancer
185 ☐ Heart Disease
186 ☐ Diabetes
187 ☐ Alcoholism
188 ☐ Depression
189 ☐ Obesity

Allergies:
206 ☐ Dairy
207 ☐ Eggs
208 ☐ Garlic
209 ☐ Gluten
210 ☐ Mold
211 ☐ Peanut
212 ☐ Ragweed
213 ☐ Shellfish
214 ☐ Soy
215 ☐ Sulfa drugs
216 ☐ Tree nuts
217 ☐ Wheat
218 ☐ Other allergies

Lifestyle Habits

265 ☐ 4-5 bowel movements per week
266 ☐ 3 or less bowel movements per week
267 ☐ 6 or more bowel movements per week
268 ☐ Black tarry stools
269 ☐ Pale or yellow colored stool
270 ☐ Blood stools
271 ☐ Constipation
272 ☐ Hemorrhoids
273 ☐ Loose bowel movements
274 ☐ Frequent diarrhea
275 ☐ Frequent nausea
276 ☐ Frequent vomiting
277 ☐ Abdominal gas
278 ☐ Belching and burping after eating
279 ☐ Bloated after eating
280 ☐ Severe abdominal pains
281 ☐ Stomach ulcers
282 ☐ Uses digestive aids
283 ☐ Uses laxatives
284 ☐ Immediate indigestion upon eating
285 ☐ Indigestion in 2 hours or more after meals
286 ☐ Indigestion within 1 hour after meals
287 ☐ Difficulty swallowing
288 ☐ Eating relieves fatigue
289 ☐ Eats when nervous
290 ☐ Excessive hunger
291 ☐ Poor appetite
292 ☐ Experiences fainting spells when hungry
293 ☐ Feels shaky when hungry
294 ☐ Frequently drowsy after eating a meal
295 ☐ Gall bladder disease
296 ☐ Has had intestinal worms
297 ☐ Reflux/Hiatal hernia
298 ☐ Liver disease
299 ☐ Irritable Bowel Syndrome
300 ☐ Diverticulitis
301 ☐ Diverticulosis

Gastrointestinal

380 ☐ Drinks beverages from a can
370 ☐ Drinks alcohol
371 ☐ Drinks caffeinated coffee
372 ☐ Drinks caffeinated pop/soda
373 ☐ Drinks caffeinated tea
374 ☐ Drinks decaffeinated coffee
375 ☐ Drinks decaffeinated pop/soda
376 ☐ Drinks decaffeinated tea
377 ☐ Drinks >3 cups of coffee daily
378 ☐ Drinks >3 cups of tea per day
388 ☐ Drinks diet pop/soda
379 ☐ Drinks >1 pop/sodas per day

I had 4 alcoholic drinks in one day:
172 ☐ never
173 ☐ more than 3 months ago
174 ☐ less than 3 months ago

381 ☐ Has >5 alcoholic drinks/week
391 ☐ Craves sugar / starches
382 ☐ Currently smokes
383 ☐ Quit smoking in last 5 years
384 ☐ Smoked for >5 years
385 ☐ Smokes >1 pack per day
126 ☐ Rarely exercises
133 ☐ Regularly exercises
386 ☐ Takes Vitamins
134 ☐ Vegetarian
135 ☐ Eats no red meat
136 ☐ Eats no meat, no dairy
387 ☐ Frequent use of artificial sweeteners
389 ☐ Anorexia
390 ☐ Bulimic
340 ☐ Home has well water
341 ☐ Home has city water
342 ☐ Home water is filtered

Home pipes are:
343 ☐ Steel
344 ☐ PVC
345 ☐ Copper
346 ☐ PEX

347 ☐ Home built prior to 1978
348 ☐ Home renovations within the last year
349 ☐ Uses chlorine bleach or other heavy duty chemicals
360 ☐ Has worked in plumbing, automotive or metallurgic industry
361 ☐ Has worked around industrial solvents, chemicals or pesticides

Medications

Please list all drugs you are currently taking including over the counter drugs, aspirin, etc. Also, list how long you have taken each drug and the condition for which it was prescribed.

DRUG	***PRESCRIBED FOR:***	***HOW LONG***
_____	_____	_____
_____	_____	_____

Please list all drugs taken within the last year including over the counter drugs, antibiotics, aspirin, inhalers, etc. Also, list how long you have taken each drug and the condition for which it was prescribed.

DRUG	***PRESCRIBED FOR:***	***HOW LONG***
_____	_____	_____
_____	_____	_____

Please list all vitamins/herbs/supplements you are currently taking. Also, list how much of each supplement you are taking.

VITAMIN/HOW MUCH		
_____	_____	_____

The purpose of the consultation

- Primarily to develop confidence in the doctor by:
  - taking a good history
  - really listening to the patient
  - providing hope
  - laying out a plan of action
    - testing
    - report of findings
    - expected results based on previous history, experience and study

THIS IS WRONG! THIS IS NOT THE MAIN THING IN THE CONSULTATION.

THE MAIN THING IS TO GET THE PATIENT TO DO ALL OF THE TESTING!!!

Testing drives everything, the report is the map on the quest for better health

- Doctor's confidence
- Patient confidence
- Reporting and consultations
- Compliance
- Further testing
- Retesting
- Results which lead to:
- Referrals

Focus on the Elements -- White Blood Count

- **Clinical range** 4.0-10.5u/L **Healthy range** 5.5-8.0u/L **CRITICAL RANGE** less than 1.5 u/L
- **Possible panic range:** less than 2.5u/L and over 30u/L
- **Use:** bacterial and viral infections, toxic metabolism processes and diagnose/evaluate leukemic states

DECREASED in:
Chronic infection
Bone marrow depression
Collagen-vascular disease
Lupus erythematosus Auto-immune diseases Viral hepatitis Hypersplenism

Drugs:
Bezafibrate: an antihyperlipidemic fibric acid

Nutrients to consider:
B12
Folic acid

INCREASED in:
Acute infection
Pregnancy
Allergic purpura
Appendicitis (12-14u/L)
Diverticulitis
Ascites infections
Cancer
Acute cholecystitis
Diabetic ketoacidosis
Fatty liver
Hemolytic anemia
Alcoholic hepatitis
Hyposplenism
Decreased ESR
Kidney disease
Spider bites
Snake bites
Leukemia

Nutrients to consider:
Lauricidin
Vit C
Echinacea
Acidophilus
Oregano Oil, etc.

White Blood Cells

- Lymphocytes have a life span of 100 to 300 days... maybe even years.
- Circulate in the blood, pass into the tissues by diapedesis (similar to amoeba), reenter the lymph and return to the blood again and again.
- Multipotential cells similar to stem cells which can become, under appropriate conditions, erythroblasts (RBC's), myeloblasts (leukocytes), fibroblasts (connective tissue) etc.
- There is actually a blood test called the Lymphocyte Transformation Test that will detect and classify congenital or acquired immunodeficiency disorders and hypersensitivity Type 1 reactions.
- Lymphocytes and immunity: B + T cells
- Thymus "T" Cells are responsible for immunity at the cellular level, for rejection of transplanted organs, and useful to monitor and diagnose AIDS specifically T4 (helper cells) & T8 (suppressor cells).
- "B" Lymphocytes migrate to the thymus, where they develop into T cells and begin to mature.
- From the thymus they go to a particular area of the peripheral lymphoid tissues and from there they circulate between blood and lymph.
- "B" Lymphocytes are responsible for antibody production.
- They become activated to a specific antigen. It produces antibody and "clones" of itself to produce more antibody. The more the antigen is introduced the more clones are made to produce specific antibodies.
- These are "dedicated" Lymphocytes to a specific antigen and only respond to it. This response may last several weeks or several months. This is the rational and philosophy of vaccination.

Focus on the Elements – Platelets: 140-415 k/cumm clinical 175-250 k/cumm subclinical

- **Clinical range** 150-450k/cumm **Healthy range** 175-250k/cumm.
- **Panic Range**: <50,000/cumm or >1,000,000/cumm.
  CRITICAL RANGE: less than 30k/cu mm and over 1000k/cu mm.

DECREASED in: (called thrombocytopenia)
Hypersplenism
Vaccinations
Thrombocytopenic purpura
Aplastic anemia
Folate and B12 deficiency
SLE (Lupus)
Kidney disease
Septicemia
Toxemia of pregnancy
Leukemia
Liver Cirrhosis
Bleeding
Transfusions
Infections
Bone marrow suppression

Drugs:
Acetaminophe
n Penicillin
Alcohol
Adriamycin- doxorubicin hydrochloride
Antipurines
Bleomycin
Alkylating agents
Antipyrimidines
D-Asparaginase
Antibiotics ie: chloramphenicol, streptomycin

DECREASED in continued:
Antibacterial agents ie: Isoniazid (INH), sulfonamides
Anticonvulsant drugs ie: ethosuximide (zarontin), methylhydantoin, paramethadione, phenacemide,trimethadione;
Antirheumatic drugs ie: colchicines, gold salts, Indomethacin
Phenylbutazone
Hypoglycemic agents ie: carbutamide, Chlorpropamide, tolbutamide;
Tranquilizers ie: chlordiazepoxide, chlorpromazine, meprobamate, promazine. Acetazolamide
EDTA
Chlorthiazide
Heparin
Hydralazine
Quinacrine
Tripelennamine
Quinidine
Quinine
Sulfas
Rifampicin
ASA
Digitoxin

Environmental toxins:
DDT; Benzol; Diphenylhydantoin; PAS; Hydrochlorothiazide; Phenylbutazone

Nutrients to consider:
Folic acid, B 12, Vit T (sesame seed oil)

INCREASED in:
Myeloproliferative disorder
Hyposplenism
Polycythemia Vera
Leukemia
Infections
Chronic inflammation
Inflammatory bowel disease
Collagen diseases
Iron deficiency anemia
Cardiac disease
Cirrhosis of liver
Pancreatitis
Postpartum
Exercise

Drugs:
Oral contraceptives

Nutrients to consider:
Vit E
GLA
Bromelain

Focus on the Elements – MPV

- MPV Ranges: Clinical 7.4 to 11 fl; Healthy 8.6-9.8; Critical 5-13
- MPV – the mean platelet volume (MPV) is similar to the MCV; it represents the average size of the platelets within a blood sample. This is a relatively new test and not included in by all laboratories. Measured in cubic micrometers or femtoliters, normal values are generally between 7 and 11 fL.
- A reduced MPV is indicative of small platelets, and may be consistent with disorders such as aplastic anemia. An elevated MPV is encountered when platelets are larger than average, such as in Idiopathic Thrombocytopenic Purpura.
- Recently, researchers have found that altered MPV levels may be consistent with increased risk of certain systemic diseases. Specifically, a low MPV has been shown to be an important marker for inflammatory bowel disease such as ulcerative colitis or Crohn's disease.1 In contradistinction, scientists have found markedly elevated MPV levels in patients at risk for stroke and heart attack.

Focus on the Elements – Neutrophils (Polys, SEGS, PMNS)

- **Clinical range** 50-70% **Healthy range** 55-65%.
  Absolute neutrophil count: clinical range over 1800/cu mm and less than 8000/cu mm
  -live about 7 hours, are expendable and form pus.
  Note: bacterial and viral infections, cancer and many other conditions will most commonly elevate neutrophils initially, with more severe problems or infections the neutrophil stores and productive capacity of bone marrow may be incapable of keeping up with demand. This may result in various levels of neutropenia. **This may be an ominous sign.**

DECREASED in:

Neutropenia and risk of infection:
Mild (1000-2000/cu mm)
Moderate (500-1000/cu mm)
Severe (<500/cu mm) due to impaired production often can be life threatening

Bacterial infections including:
- Septicemia
- Escherichia coli
- Military tuberculosis
- Typhoid
- Paratyphoid
- Brucellosis
- Tularemia
- Bacterial- pneumonia
- Pseudomonas
- Salmonellosis
- Brucellosis
- Pertussis
- Rickettsial

Viral infections including:
Infectious mononucleosis
Hepatitis
Influenza
Measles
Rubella
Psittacosis
Copper deficiency suspect with WBC <5000 and Neutrophils <1500/cu mm
Addison's disease Bone marrow depression; Alcoholics

Nutritents: B12, folic acid, other nutrients based on other test findings

DECREASED in continued:

Diabetes mellitus
Pernicious anemia
Aleukemic leukemia
Aplastic anemia
Hypersplenism
Lymphocytosis
Gaucher's disease
Myelophthisis
Anaphylactic shock
Cachexia
Renal injury
Autoimmune diseases: SLE; RA
Splenic sequestration
Cancers
Felty's syndrome (splenomegaly which may cause severe neutropenia and splenectomy may be considered)
Malaria
Sarcoidosis

Drugs:

Chemotherapy drugs
Gold salts
Aminopyrine
Sulfonamides
Arsenicals
Penicillins
Diphenylhydantoin
Chloramphenicol
Antibiotics Analgesics
Marrow depressants
Antithyroid drugs

INCREASED in:

Acute lymphocytic leukemia
Chronic lymphocytic leukemia
Cytomegalovirus (CMV) infection
HIV/AIDS
Mononucleosis
Multiple myeloma
Other viral infections
Tuberculosis Vasculitis
Whooping cough
- Acute infections
- Localized infections
- Postoperative
- Eclampsia
- Gout
- Acute hemolysis of RBC's
- Coronary thrombosis
- Malignancy
- Most bacterial infections
- Allergic purpura
- Kidney disease
- Hereditary giant neutrophilia
- Myelodysplasia
- Newborns
- Strenuous exercise

Nutrients to consider: Vit C; Lauricidin; Beta-carotene; Thymus; Garlic
Other nutrients based upon other test findings.

Focus on the Elements – Lymphocytes

- **Clinical range** 20-40% **Healthy range** 25-40%

DECREASED in:
Immunodeficiency; Viral Infections; Protein-calorie malnutrition; Chemotherapy; Radiation treatment; Cushing's syndrome; Stress; Aplastic anemia; Hodgkin's disease; Cancer; Genetic trait; AIDS; SLE ; Renal failure; Tuberculosis; Myasthenia gravis; Congestive heart failure; Obstruction to lymphatic drainage

Drugs:
Corticosteroids

Nutrients to consider:
Vit C, Beta-carotene, Lauricidin, thymus, zinc

INCREASED in:
Food allergies; Ulcerative colitis; Crohn's disease; Vasculitis; Leukemia; Neutropenia; Addison's disease; Thyrotoxicosis and possible goiter; Acute infection recovery; Undulant fever; Tuberculosis; Chickenpox; Toxoplasmosis; German measles; Mumps; Cytomegalovirus; Hepatitis (infectious); Mononucleosis (infectious); Lymphocytosis (infectious); Pertussis

Drugs:

Nutrients to consider: Vit C, Lauricidin, Beta-carotene, acidophilus, consider ALCAT test for food allergy.

Focus on the Elements – Monocytes

- **Clinical range** 1.00-8.50% **Healthy range** 3.00-7.00% **Absolute Monocytes**: 0.1-1.0 uL

DECREASED in:

Drugs:
Corticosteroids

INCREASED in:

Mononucleosis (if very high)
Food allergies; Ulcerative colitis; Sprue ; Sarcoidosis; Collagen disease (rheumatoid arthritis and SLE); Leukemias; Cancer; Hodgkin's disease; Lymphoma; Gaucher's disease (lipid storage disease); Postsplenectomy; Agranulocytosis and acute infection recovery; Protozoan infection (malaria, kala- azar and trypanosomiasis); Rickettsial infection (Rocky Mountain spotted fever and typhus); Bacterial infections (subacute bacterial endocarditis, tuberculosis and brucellosis); Regional enteritis

Chemicals:
Tetrachlorethane poisoning

Nutrients to consider:
Depends on condition

Focus on Elements – Eosinophils

- **Clinical range** 1.00-5.00% **Healthy range** 0.00-4.00% **Absolute Eosinophils count**: 0.0-0.4uL.

Decreased in: none
Drugs:

Increased in:
Allergic diseases (asthma, hayfever, urticaria and allergic rhinitis)
Allergic purpura
Kidney disease
Parasitic infestation (trichinosis, echinococcus, schistosomiasis, filariasis and fascioliasis) Mycoses
Some infectious diseases (scarlet fever, erythema multiforme)
Chlamydia
Collagen-vascular diseases (SLE, Rh arthritis, scleroderma, Dermatomyositis, Periarteritis nodosa and Churg-Strauss syndrome)
Skin diseases (pemphigus and dermatitis herpetiformis)
Pernicious anemia
Leukemia

Increased in continued:
Polycythemia
Hodgkin's disease
Lymphomas
Postsplenectomy
IgA deficiency
Neutropenia
Graft-versus-host disease
Post irradiation
Tumors (ovary, bone)
Sarcoidosis
Endocarditis
Genetic traits
Poisoning (phosphorus, black widow spider bite)
Drugs: Aspirin
Nutrients to Consider:
Vit C, Turmeric, Ginger, Bioflavonoids homeopathies, etc...

Focus on the Elements – Basophils

- **Clinical range** 0.00-1.00% **Healthy range** 0.00-0.00 **Absolute basophil count:** 0.0-0.2uL.

Decreased in:
Hyperthyroidism
Pregnancy
Acute infection
Following irradiation and chemotherapy

Drugs:
Chemotherapy
Glucocorticoids

Increased in:
Chronic sinusitis
Leukemia
Polycythemia
Hodgkin's disease
Myeloid metaplasia
Postsplenectomy
Chronic hemolytic anemia
Chickenpox
Smallpox
Myxedema
Nephrosis Ionizing radiation
Foreign protein injection (vaccinations)

Nutrients:
B12/folic acid, vit C, thymus, bioflavonoids

Nutrients for Infection

- Vitamin C – Vitality C with Ribose
- Lauricidin
- Acidophilus
- Vitamin E
- Echinacea Premium/RM 10
- Oregano Oil

Immunce/CBC

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH									
Platelets	high									
Polys	high									
Lymps	LOW									
Mono										
Eos										
Baso										

	Conditions	Considerations
Test 1	Low Immune System, Possible Acute Bacterial Infection / Cancer **Nutrients:** Lauricidin, Vit C, etc.	UA, ESR, Kidney, Liver, Drugs
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH		LOW	LOW						
Platelets	high			HIGH						
Polys	high	HIGH	LOW							
Lymps	LOW	LOW	high	HIGH						
Mono			HIGH	HIGH						
Eos										
Baso										

	Conditions	Considerations
Test 1	Low Immune System, Possible Acute Bacterial Infection / Cancer **Nutrients:** Lauricidin, Vit C, etc.	UA, ESR, Kidney, Liver, Drugs
Test 2	Chronic Infection / Cancer **Nutrients:** Lauricidin, Vit C, etc.	UA, Kidney, Liver, Drugs
Test 3	Bone Marrow Depression, Due to more Severe Chronic Infections (Bact/Viral) or CA – Check Absolute Lymps **Nutrients:** Lauricidin, Vit C, etc.	UA, Urinary Indican, Proteins, Drugs
Test 4	Acute Infection, Possibly Parasites or Allergy **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	Stool Analysis, UA, Metabolic, UA, Drugs

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH		LOW	LOW	HIGH					
Platelets	high			HIGH						
Polys	high	HIGH	LOW							
Lymps	LOW	LOW	high	HIGH						
Mono			HIGH	HIGH	HIGH					
Eos					HIGH					
Baso					HIGH					

	Conditions	Considerations
Test 5	Allergies – Environmental, Food, Toxic – Anaphylactic, Cancer **Nutrients:** Vit C, Lauricidin, Avoid Dairy	Digestion, Thyroid, Proteins, Drugs
Test 6		
Test 7		
Test 8		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH		LOW	LOW	HIGH	high				
Platelets	high			HIGH						
Polys	high	HIGH	LOW							
Lymps	LOW	LOW	high	HIGH						
Mono			HIGH	HIGH	HIGH					
Eos					HIGH					
Baso					HIGH					

	Conditions	Considerations
Test 5	Allergies – Environmental, Food, Toxic – Anaphylactic, Cancer **Nutrients:** Vit C, Lauricidin, Avoid Dairy	Digestion, Thyroid, Proteins, Drugs
Test 6	Chronic Infection **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	UA, Stool, Drugs
Test 7		
Test 8		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH		LOW	LOW	HIGH	high				
Platelets	high			HIGH				HIGH		
Polys	high	HIGH	LOW							
Lymps	LOW	LOW	high	HIGH			HIGH			
Mono			HIGH	HIGH	HIGH			HIGH		
Eos					HIGH					
Baso					HIGH					

	Conditions	Considerations
Test 5	Allergies – Environmental, Food, Toxic – Anaphylactic, Cancer **Nutrients:** Vit C, Lauricidin, Avoid Dairy	Digestion, Thyroid, Proteins, Drugs
Test 6	Chronic Infection **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	UA, Stool, Drugs
Test 7	Viral Infection **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	Fever, UA, Drugs
Test 8	Bacterial, Protozoal, Pre Leukemia/Cancer **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	UA, CRP, ESR, Drugs

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10
WBC	VHIGH		LOW	LOW	HIGH	high			LOW	LOW
Platelets	high			HIGH				HIGH	HIGH	LOW
Polys	high	HIGH	LOW							
Lymps	LOW	LOW	high	HIGH			HIGH		LOW	LOW
Mono			HIGH	HIGH	HIGH			HIGH		
Eos					HIGH					
Baso					HIGH					

	Conditions	Considerations
Test 9	Bad Sign/Low Immune System, Possible Cancer, Chronic Infection **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	UA, ESR, CRP, Proteins, Drugs
Test 10	Very Bad, Probably Cancer **Nutrients:** Lauricidin, Vit C, Beta Carotene, Thymus, Echinacea	UA, Metabolic UA, Proteins, Liver, Thyroid, Drugs

Session 2: Diabetes

Mission Possible

- I implore you to take this cause, to make this your mission to save lives, to take responsibility, to care… to do whatever it takes. You have the legal authority granted by your Doctor of Chiropractic degree. Don't count or rely on the medical community, for it is too busy and is controlled by what the insurance dictates. You will be better. You have to be, because it is necessary. You will do what is right and be honest. When you do this, you will truly be a doctor – one that makes a difference and saves lives. It is up to you. Can your patients count on you? If not you… WHO? – Van D. Merkle

Can you get all the nutrients you need from food?

- **USDA** nutrient data from 1975 and 1997 has revealed a disturbing trend:
  - Average calcium levels in 12 fresh vegetables have declined **27%**
  - Iron levels have dropped **37%**
  - Vitamin A levels, **21%**
  - Vitamin C levels, **30%**
- **British** nutrient data from 1930 and 1980 indicate reductions of essential minerals in both fruits and vegetables:
  - Average calcium content declined **19%**
  - Iron, **22%**
  - Potassium **14%** in the 20 vegetables compared.

Wow Case 12-10-2001

- Patient Lisa B: primary dx of Rh arthritis
- In less than 2 months on her "program" she is off all drugs: Embrel, Methotrexate, Celebrex, Darvacet, Percadan, Vicadin, Norflex, Lasix

Fat Nation: USA

- 1/3 (33%) of all adults are obese: 59 million people
- 23% in 1994
- 15% in 1980
- Only 1 in five consider themselves obese (People consistently underestimate their weight
- 15% of children age 6-19 were seriously overweight: 9 million which is triple the number in 1980
  - *JAMA* 10-2002
  - *DDN* 10-9-2002 2000 government survey

Texas Tops States for Highest Rate of Cancers From Excess Weight
Nationally, women had higher proportion of cancer due to weight than men, MedPage Today December 27, 2018

- Oncology/Hematology >by Kristen Monaco, Staff Writer
- At least one of every 17 cancers in the U.S. was attributable to excess body weight (EBW), with the District of Columbia and Southern and Midwestern states leading the way, a new study found.
- From 2011 to 2015, the population attributable fraction (PAF) of incident cancers due to EBW in adults 30 and up was roughly 10% in women (74,690 cases) and 5% in men (37,670 cases), reported Farhad Islami, MD, PhD, of the American Cancer Society, and colleagues in JAMA Oncology.

CDC 3-4-2014

- Childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years.[1,]
- The percentage of children aged 6–11 years in the United States who were obese increased from 7% in 1980 to nearly 18% in 2012.
- The percentage of adolescents aged 12–19 years who were obese increased from 5% to nearly 21% over the same period.[1, 2] In 2012, more than one third of children and adolescents were overweight or obese.[1]

- **Childhood obesity getting worse.**
  By Dr. Mercola 12-31-2014
  As recently as February, 2014 a study by the US Centers for Disease Control and Prevention (CDC) published in *JAMA*[1] declared that obesity rates among two- to five-year olds declined by 43 percent in the past decade, dropping from 14 percent in 2003 to eight percent in 2012.
  Obesity rates among other age groups were found to have "stabilized." The findings were broadcast on all of the nation's major news stations and in most major newspapers[2, 3, 4] with many claiming "victory" in the fight against childhood obesity. Alas, the celebration was short-lived.

- **Severe Obesity on the Rise Among American Youth**
  On April 7, another team of researchers published a report in the journal *JAMA Pediatrics,*[5, 6] showing a very different picture—despite the fact that they used the same National Health and Nutrition Examination Survey data as the CDC. The difference was that this study included another four years' worth of data (1999 to 2012). As reported by WebMD:[7]
  "Contrary to a recent report with encouraging figures on childhood obesity in the United States, a new study presents a more sobering picture of the nation's pediatric weight problem.
  Severe obesity, which sets kids up for a lifetime of health problems, has increased over the past 14 years, *North*

Carolina researchers found... Severely obese children are the ones most likely to have type 2 diabetes as teens and other problems such as heart disease later in life. They are also the children who will require millions of dollars in health care costs..."

As of 2011, just over 17 percent of American children between the ages of two and 19 were obese, classified as having a body mass index (BMI) exceeding that of 95 percent of same-sex peers of the same age.

Nearly six percent of youths met criteria for class 2 obesity, classified as having a BMI greater than 120 percent of the 95th percentile (or a BMI of 35). More than two percent of children fell in the class 3 obesity category, indicating they had a BMI of 40 or greater.

Such extreme obesity during youth can really set you up for a lifetime of very serious health problems. WebMD quotes Dr. David Katz, director of the Yale University Prevention Research Center, saying:[8]

"'This paper will come as a sobering reality check for any who believed the recent headlines about childhood obesity rates plummeting,' he said. 'Severe obesity in children is rising, he said, adding that this is a critical piece of information.'"

Radical Reduction: the benefits of stomach stapling for teenagers

- *Health and medicine explained. By Amanda Schaffer*
- *Posted Tuesday, Aug. 22, 2006, at 7:27 AM ET Last month, the already grim prognosis for heavy kids took a turn for the even worse. A study of more than 100,000 women, published in the Annals of Internal Medicine, found that those who were overweight at age 18 were more likely to die prematurely in middle age. And research published in the Journal of the American Medical Association showed that people who develop type 2 diabetes—a condition associated with obesity—before the age of 20, as opposed to later, are at greater risk of end-stage kidney disease and death before the age of 55. Obesity at any age is associated with health woes like sleep apnea, fatty liver disease, atherosclerosis, loss of vision, and some types of cancer, in addition to diabetes. But when these conditions appear in the young obese, the long-term ramifications are just scary.*
- *How about a radical solution—stomach stapling for teenagers? It may sound crazy and desperate, but several major children's hospitals, including Cincinnati Children's Hospital Medical Center, Texas Children's Hospital, and Lucile Packard Children's Hospital at Stanford, have started offering obesity surgery in recent years. Nightline recently followed a 16-year-old Texas girl who underwent stomach stapling and lost 129 pounds in six months, down from a starting weight of 368.*
- *To be sure, obesity surgery is a risky proposition. One small study, published earlier this year in the Journal of Pediatric Surgery, found that roughly 40 percent of kids who underwent gastric bypass experienced some kind of complication, such as intestinal leakage, dumping syndrome, bowel obstruction, wound infection, or a nutritional deficiency. (A similar complication rate has been found in adults.) Nutritional deficiencies, especially of calcium, iron, vitamin B-1 and vitamin B-12, may occur partly because patients are eating less and partly because the operation bypasses a portion of the digestive tract that efficiently absorbs many vitamins and minerals.*
- *The potential for deficiencies means that patients must adhere to strict guidelines. All patients must eat more lean, high-quality protein; exercise; and take vitamins and minerals for the rest of their lives. Teenage girls must take additional calcium and iron.*

- *To be sure, obesity surgery is a risky proposition. One small study, published earlier this year in the Journal of Pediatric Surgery, found that roughly 40 percent of kids who underwent gastric bypass experienced some kind of complication, such as intestinal leakage, dumping syndrome, bowel obstruction, wound infection, or a nutritional deficiency. (A similar complication rate has been found in adults.) Nutritional deficiencies, especially of calcium, iron, vitamin B-1 and vitamin B-12, may occur partly because patients are eating less and partly because the operation bypasses a portion of the digestive tract that efficiently absorbs many vitamins and minerals.*
- *The potential for deficiencies means that patients must adhere to strict guidelines. All patients must eat more lean, high-quality protein; exercise; and take vitamins and minerals for the rest of their lives. Teenage girls must take additional calcium and iron.*

S. XXXX - 1st test 10/17/2001; 2nd Test 10/17/2003; **Gastric Bypass 2 years ago Lost 40lbs.**

Test Description Date:	Current Result 10/17/2003	Current Rating	Prior Result 10/17/2001	Delta	Healthy	Clinical	Units
Glucose	105.00	hi	314.00	☺	84.10 - 100.01	65.00 - 109.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.40	Opt	9.30	☺	4.61 - 5.40	4.50 - 5.70	%
Uric Acid	7.80	hi	6.70	☹	4.10 - 6.00	2.40 - 8.20	mg/dL
BUN (Blood Urea Nitrogen)	11.00	lo	8.00	☺	13.10 - 18.00	5.00 - 26.00	mg/dL
Creatinine	0.70	Opt	0.70		0.61 - 0.90	0.50 - 1.50	mg/dL
BUN / Creatinine Ratio	15.00	Opt	11.00	☺	13.10 - 20.00	8.00 - 27.00	ratio
Sodium	143.00	Opt	140.00	☺	140.10 - 144.00	135.00 - 148.00	meq/dL
Potassium	3.90	lo	4.60	☹	3.91 - 4.60	3.50 - 5.50	meq/dL
Chloride	106.00	hi	102.00	☹	100.10 - 106.00	96.00 - 109.00	meq/dL
Magnesium	2.10	lo	2.40	☹	2.21 - 2.50	1.60 - 2.60	mg/dL
Calcium	9.60	lo	9.70	☹	9.71 - 10.10	8.50 - 10.60	mg/dL
Phosphorus	4.10	hi	2.50	☺	3.41 - 4.00	2.50 - 4.50	mg/dL
Calcium/Albumin Ratio	2.28	Opt	2.31		2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	6.50	lo	7.20	☹	7.11 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.20	Opt	4.20		4.10 - 4.51	3.50 - 5.50	gm/dL
Globulin	2.30	lo	3.00	☹	2.81 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	1.80	hi	1.40	☹	1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.60	Opt	0.40		0.39 - 0.93	0.10 - 1.20	mg/dL
Alkaline Phosphatase 25-150	67.00	Opt	112.00	☺	66.00 - 108.00	25.00 - 150.00	IU/L
LDH	131.00	Opt	233.00	☺	120.10 - 160.00	100.00 - 250.00	mu/mL
SGOT (AST)	15.00	lo	22.00	☹	18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)	18.00	lo	44.00	☺	18.10 - 26.00	6.00 - 40.00	mu/mL
GGT	11.00	Opt	30.00		10.10 - 36.00	6.00 - 65.00	mu/mL
Serum Iron	93.00	Opt	78.00	☺	85.10 - 120.00	35.00 - 155.00	mcg/dL
Ferritin	80.00	Opt	129.00		30.10 - 218.30	22.00 - 322.00	ng/mL
Cholesterol	126.00	lo	148.00	☹	150.10 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	81.00	Opt	135.00	☺	80.10 - 115.00	10.00 - 199.00	mg/dL
HDL Cholesterol	56.00	Opt	34.00	☺	55.10 - 120.00	40.00 - 150.00	mg/dL
LDL Cholesterol	53.00	Opt	87.00		50.10 - 75.10	6.00 - 99.10	mg/dL
VLDL Cholesterol	16.00	Opt	27.00	☺	5.10 - 20.10	4.10 - 40.10	mg/dL
Total Cholesterol / HDL Ratio	2.20	Opt	4.30	☺	0.00 - 4.00	0.00 - 5.00	ratio
T4 Thyroxine	8.40	Opt	9.30	☺	7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	32.00	Opt	30.00	☺	29.10 - 35.10	24.00 - 39.00	%
T7 Free Thyroxine Index	2.60	lo	2.70	☹	2.61 - 3.60	1.20 - 4.90	
White Blood Count	4.20	lo	7.00	☹	5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.21	lo	4.35	☹	4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	13.20	lo	13.30	☹	13.91 - 15.00	11.50 - 17.00	gm/dL
Hematocrit	37.50	lo	37.80	☹	39.51 - 47.00	34.00 - 50.00	%
MCV	89.00	Opt	87.00		85.10 - 97.00	80.00 - 98.00	cu.m
MCH	31.20	Opt	30.60		28.10 - 32.00	27.00 - 34.00	pg
MCHC	35.10	hi	35.30	☺	33.10 - 34.99	32.00 - 36.00	%
Platelets	175.00	lo	279.00	☺	175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	55.00	lo	60.00	☹	55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	36.00	Opt	28.00		25.10 - 40.00	14.00 - 46.00	%
Monocytes	6.00	Opt	8.00	☺	5.10 - 7.10	4.90 - 13.00	%
Eosinophils	2.00	Opt	3.00		0.00 - 4.00	0.00 - 7.00	%
Basophils	1.00	hi	1.00		0.00 - 0.00	0.00 - 3.00	%
ESR (Erythrocyte Sed Rate)	2.00	Opt	9.00	☺	0.00 - 8.00	0.00 - 30.00	mm/HR
CRP C-Reactive Protein	0.40	hi	6.20	☺	0.00 - 0.00	0.00 - 4.90	mg/L
Creatine Kinase	76.00	Opt	106.00		50.50 - 150.00	24.00 - 204.00	u/l

Death Risk Drops After Bariatric Surgery in Obese Patients
by Kristen Monaco, Staff Writer, MedPage Today August 06, 2019

- But gastric bypass, sleeve gastrectomy had higher risk for late adverse GI events
- Bariatric surgery was associated with an extended lifespan in patients with obesity, but also carried a higher risk of at least one hospital admission for late adverse events, according to a French study.
- In a cohort study of nearly 9,000 bariatric surgery patients, those who underwent gastric bypass surgery had a 36% reduced morality risk compared with matched controls with obesity who did not undergo surgery (hazard ratio 0.64, 95% CI 0.52-0.78), reported Jérémie Thereaux, MD, of the Caisse Nationale d'Assurance Maladie in Paris, and colleagues.
- During the nearly 7-year follow-up period, patients who opted for sleeve gastrectomy saw a 62% reduced risk for mortality versus those who didn't undergo surgery (HR 0.38, 95% CI 0.29-0.50), they stated in the Lancet Diabetes & Endocrinology.
- However, prolonged mortality associated with bariatric surgery also came with some additional medical risks. Compared with matched controls, patients who underwent gastric bypass surgery saw a higher incidence of a few gastrointestinal (GI)-related outcomes:
    - Invasive GI surgery or endoscopy: incidence rate ratio 2.4 (95% CI 2.1-2.7)
    - GI disorders not leading to invasive procedures: IRR 1.9 (95% CI 1.7-2.1)
    - Nutritional disorders: IRR 4.9 (95% CI 3.8-6.4)
- Those who had undergone a previous bariatric surgery procedure within 4 years prior were excluded.
- “they will have to comply with multidisciplinary careful lifelong follow-up given the risk of late adverse events."

American Diabetic Assoc. 3-4-2014

- 26 million adults and children-diabetic
- 79 million prediabetic
- 1.9 newly diagnosed yearly with diabetes
- 10% of US population
- 25% of seniors
- 1 out of 3 will be diabetic in 2050
- $245 Billion current cost
- 1 in 5 health care dollars spent on care and expenses of diabetes
- 85.2% of diabetes are overweight or obese
- Kills more than breast cancer and aids

Diabetes expected to double, costs to triple by 2034

- © Brooke Fasani/Corbis
- According to estimates from researchers at the University of Chicago, the total number of Americans with diabetes will double in the next 25 years, from the current 23.7 million to some 44.1 million in 2034. During that same time frame, annual costs for treating those patients are expected to soar—nearly tripling from the current $113 billion to some $336 billion.
- The figures, published in the December issue of the journal *Diabetes Care*,
- Past estimates often dramatically underestimated just how quickly the problem would grow. Researchers point to figures from 1991, which projected that some 11.6 million Americans would have diabetes by 2030. In fact, that's fewer than half of the total number of Americans with diabetes *today*, two decades earlier than researchers had predicted.
- the researchers say: as a nation, we need to completely overhaul our eating and exercise habits, and find practical, applicable ways to curb the cost of treating diabetes.
  Read more: http://wellness.blogs.time.com/2009/11/27/diabetes-expected-to-double-costs-to-triple-by-2034/#ixzz0ZlsjK7Lg

40% of US Adults

- Revised Definition Means Millions More Have Pre-Diabetes "Pre-diabetes" — a condition that raises a person's risk of developing type 2 diabetes, heart disease, and stroke — is far more common in America than previously believed, according to a new HHS estimate released today. **About 40 percent of U.S. adults ages 40 to 74 — or 41 million people — currently have the condition**, which is marked by blood glucose levels that are higher than normal but not yet diabetic. Many people with pre-diabetes go on to develop type 2 diabetes within 10 years.

Diabetes/Long Life in the USA

- Diabetes increased 27% between 1997-2002
- 1/3 of Americans are obese
- 2/3 of Americans are overweight
- Life expectancy 77.2 years-a record high for children born in 2001
  - Girls: 79.8 years
  - Boys: 74.4 years
    - *USA Today* 10-6-2003 National Center for Health Statistics

Contributes / Causes Diabetes

- Processed meats, hot dogs, bacon, sausage, bologna, pork- 46% increase when frequently eaten
- 39% increase with hydrogenated fats
- Pop/colas
- Coffee, caffeine
- Dairy
- Vaccines
- Many drugs- beta blockers, steroids, antibiotics
- Refined carbohydrates

Dairy and Diabetes: THE STUDY

- Eight-year-old boys were divided into three groups.
  - Group number one: no milk nor meat for seven days.
  - Group number two: fed 53 grams of meat protein each day for 7 days.
  - Group number three: fed 53 grams of milk protein each day for 7 days.
- Blood levels of insulin, glucose, and amino acids were measured daily. Insulin resistances were then calculated for each child.
- RESULTS: In the milk-group, insulin resistance doubled when compared to the control group. In the control and meat-group, there were no increases in insulin resistance.
- CONCLUSION: a short term high meat intake did not affect insulin resistance in young males, while a short term high milk and dairy intake increased insulin resistance dramatically.
- Recognizing that dairy products increase rates of insulin resistance in 8-year-old boys, the authors of the study wrote: "**Our results indicate that a short-term high milk, but not meat, intake increased insulin secretion and resistance. *The long-term consequences of this are unknown*.“**
  - March, 2005 issue of the *European Journal of Clinical Nutrition* (2005 Mar;59(3):393-8)

Mercury Compound Found in Fish Damages Pancreatic Cells

- *ScienceDaily (Sep. 29, 2006)* — Researchers in Taiwan say they have established for the first time that the mercury compound present as a contaminant in some seafood can damage insulin-producing cells in the pancreas.
- In their experiments, Shing-Hwa Liu and colleagues exposed cell cultures of insulin-producing beta cells to methylmercury. They used concentrations of methylmercury at about the same levels as people would consume in fish under the U. S. Food and Drug Administration's recommended limits.
- Previous studies have shown that methylmercury is toxic to various cells. Liu and colleagues now have added pancreatic beta cells to that list.
- "Altogether, our data clearly indicate that methylmercury-induced oxidative stress causes pancreatic beta-cell apoptosis (programmed cell death) and dysfunction," they said in a report scheduled for the Aug. 21 issue of the ACS journal, Chemical Research in Toxicology.
- Liu added in an interview: "Although there was lack of a firm clinical basis, some cellular and animal studies implied that methylmercury may have [the] ability to injury the pancreatic beta cells. The present study supplied the direct evidence of basic research that methylmercury-induced oxidative stress causes pancreatic beta cell apoptosis and dysfunction. Further research is needed on whether methylmercury exposure increases the risk of diabetes in humans."

Induced hyperglycemia protects rats against mercuric chloride nephrotoxicity

- Taiwan Yi Xue Hui Za Zhi. 1989 Apr;88(4):366-9.
- Shyh TP, Shieh SD, Shieh SM.
- **Abstract**
- Male Sprague-Dawley rats made diabetic (n = 20) by injection of streptozotocin 65 mg/kg and weight matched controls (n = 19) were divided into unilaterally nephrectomized and intact groups prior to challenge with HgCl2 (3 mg/kg). Diabetic rats (D2, n = 9) did not show a rise in serum creatinine concentration (0.56 +/- 0.10 vs 0.48 +/- 0.10 mg/dl) after HgCl2 challenge, while control rats (C2, n = 10) had a significant (p less than 0.001) rise in serum creatinine levels (0.40 +/- 0.14 vs 2.60 +/- 0.42 mg/dl). Uninephrectomized rats (D1, n = 11) did not alter the protection afforded by diabetes (creatinine 0.69 +/- 0.14 vs 0.67 +/- 0.13 mg/dl), but control uninephrectomized rats (C1, n = 9) had a substantial rise (p less than 0.001) in serum creatinine (0.51 +/- 0.13 vs 3.81 +/- 0.72 mg/dl). We conclude that induced hyperglycemia protects rats against mercuric chloride toxicity. Induced Hyperglycemia Protects Against Mercury Nephrotoxicit ASAIO Journal

Cadmium and mercury induced* hyperglycemia in the fresh water crab**

- ***Oziotelphusa senex senex*: Involvement of neuroendocrine system**
- **P. Sreenivasula Reddy[a,*], P. Ramachandra Reddy[b] and S.B. Sainath[a]**
- [a] Department of Biotechnology, Sri Venkateswara University, Tirupati 517502, Andhra Pradesh, India
  [b] Department of Biochemistry, Yogi Vemana University, Vemanapuram, Kadapa 516003, Andhra Pradesh, India
- Received 7 September 2009; revised 17 August 2010; accepted 24 October 2010. Available online 19 November 2010.
- **Abstract**
  The effect of exposure to sublethal concentrations of cadmium chloride and mercuric chloride on hemolymph glucose levels of the freshwater crab, *Oziotelphusa senex senex*, was studied. Intact crabs exposed to cadmium or mercury exhibited a significant hyperglycemia compared to controls, but no significant differences in hemolymph glucose level were detected among the eyestalkless crabs after exposure to metals, suggesting that the effect of metals could be on the sinus gland in the eyestalks, increasing secretion of the hyperglycemic hormone. To test this hypothesis, eyestalks were collected from control and metal exposed crabs, and tested for hyperglycemic effect and also for the hyperglycemic hormone levels. The levels of hyperglycemic hormone and the hyperglycemic effect were significantly low in the eyestalks collected from metal exposed crabs when compared with eyestalks from control crabs. These results strongly suggest that metals act, at least in part, by triggering the secretion of hyperglycemic hormone from the eyestalk.
  Another Article in ScienceDirect - Ecotoxicology and Environmental Safety Cadmium and mercury-induced hyperglycemia in the fresh water crab, Oziotelphusa senex senex Involvement of neuroendocrine system

Insulin Resistance

- State in which the body does not respond to the action of insulin hormone although enough insulin is produced.
- This occurs often in people with type 2 diabetes.

Symptoms of HypERglycemia

- Symptoms:
  - Thirst
  - Fatigue
  - Blurry vision
  - Rapid weight loss
  - Frequent trips to the bathroom
  - Nausea
  - Feeling faint
- Having an infection or being sick or under stress can also make the blood sugar too high
- If the patient is not sick and does not have ketones in their urine, going for a slow walk or some other easy exercise may lower the blood sugar.

Symptoms of HypOglycemia

- Caused by taking too much insulin, missing a meal, caffeine, soda, typical American diet, delaying a meal, exercising too much, or drinking too much alcohol. Sometimes medicines you take for other health problems can cause blood sugar to drop.
  - Symptoms:
  - Shakiness
  - Unhappy
  - Mixed up
  - Hungry
  - Fatigue
  - Sweat a lot
  - Headaches
  - Very confused
  - Sleepy
  - Irritable
  - May pass out or have a seizure.

Case: Dawn D.; 59 year old female; presented on 9/11/1997

- **Diabetes, Extreme Fatigue, Recent Loss of Vision, Digestive Problems, Recurrent Sinus Infections**
- **January 14, 1998: 4 months on the program**
  - Hemoglobin A1C reduced from 13.7 down to 6.3
  - Glucose dropped from 353 down to 99
  - Triglycerides dropped from 633 down to 207
- She was very adamant about not doing any medical treatment or therapy
- She had to stick very carefully to the natural program we designed
- Vision almost back to normal
- Sinus infections are gone
- Digestion is normal
- Energy is greatly increased
- ***I must recommend that if you are diabetic you have to test yourself regularly. If you are taking insulin, you cannot just suddenly stop taking it.**

Test Description	1st Test Result	2nd Test Result	3rd Test Result	Homeostatic	Clinical
Date	9/11/1997	11/11/1997	9/23/1998		
Glucose	353	232	99	85.00 - 100.00	65-109
Hemoglobin A1C	13.7	9.7	6.3	4.60 - 5.40	4.5-5.7
Cholesterol	205	175	211	150-180	100-199
Triglycerides	633	250	207	80-115	10-199
T3	30	30	33.1	35-40	24-39
T7	2.01	2.79	3.08	2.6-3.6	1.2-4.9
Coronary Risk	6.8	6.6	6.2	0-4	0-5
Erythrocyte Sed Rate	14	5.7	7	0-8	0-30

Dawn D. Vitamin List

VITAMIN	DOSAGE
Vitamin C	4,000 mg/day
Beta Carotene	100,000 IU/day
Garlic	3,000 mg/day
Herbal Defense	6 tablets/day
Tyrosine	2,000 mg/day
Chromium Picolinate	1,200 mcg/day
Vitamin E	800 IU/day
Zinc	50 mg/day
Magnesium	400 mg/day
Vandyl Sulfate	200 mg/day

The Key

- It is a great honor, an awesome responsibility… humbling when a patient comes to me. I am truly honored that they have come. I must do my best to deserve this honor each time I see them and in everything I do for them, for they have entrusted me with their most valuable possession – their health or their child's health. I will not, I must not be distracted in my consultations, reports or duty to them. I will not order one test or recommend one vitamin more than is necessary. But neither shall I shirk from my duty to tell the truth and recommend what I know, for the best of my ability is required to help them achieve their goals in health. For without health, how can one fulfill their optimum potential or purpose in life?

  Van D. Merkle

Type 1 Diabetes

- Occurs equally among males and females
- More common in whites than in nonwhites.

Causes of Type 1 Diabetes

- Viruses
- Auto-immune disease
- Drugs: steroids, antibiotics etc.
- Vaccinations

Diabetes

- An estimated 16 million people in the United States have diabetes mellitus
- About half of these people do not know they have diabetes and are not under care for the disorder.
- Each year, about 798,000 people are diagnosed with diabetes.
- 5th or 6th leading causes of death and disability in the United States...more than 193,140 deaths in 1996.
- One of the most common chronic disorders in children in the United States. About 123,000 children and teenagers age 19 and younger have diabetes.
- 24,000 persons with diabetes lose their sight each year. In the United States, diabetic retinopathy is the leading cause of blindness in adults under age 65.

Diabetic Kidney Disease

- The most common cause of kidney failure in the United States.
- The greatest threat to life in adults with Type 1 Diabetes.
- After having diabetes for 15 years, one-third of people with type 1 diabetes develop kidney disease.
- Diabetes damages the small blood vessels in the kidneys, impairing their ability to filter impurities from blood for excretion in the urine.
- Persons with kidney damage must have a kidney transplant or rely on dialysis to cleanse their blood.

Diabetic Neuropathy

- Can cause pain and loss of feeling in the feet, legs, and fingertips.
- Can also affect the parts of the nervous system that control blood pressure, heart rate, digestion, and sexual function.
- Is a major contributing factor in foot and leg amputations among people with diabetes.

Diabetes … Long term Complications

- Blindness
- Heart disease
- Strokes
- Kidney failure
- Amputations
- Nerve damage
- Uncontrolled diabetes can complicate pregnancy
- Birth defects are more common in babies born to women with diabetes.
- **Don't forget about impotence**

Study link cancer & diabetes

- ASSOCIATED PRESS *DDN* 1-12-05
- CHICAGO—a study of more than 1 million South Koreans suggests diabetes can raise the risk of developing and dying from several types of cancer, including digestive-tract tumors.
- Diabetes is often linked to obesity and obesity is known to increase the risk of cancer. Yet few of the study participants were overweight, so the researchers think high blood sugar levels- another hallmark of diabetes- also might be involved.
- The highest risks for developing cancer and dying from it were found in people with the highest blood sugar levels, the South Korean researchers found. The study appeared in *Journal of the American Medical Association*.
- Researchers analyzed data on 1.29 million South Korean men and women ages 30-95. About 5 percent of the participants had diabetes. A total of 26,473 participants died of cancer during follow-up.
- **Participants with diabetes were roughly 30 percent more likely than those without to develop and die from cancer.**

Oral Diabetes Agents Appear to:

- Affect the insulin-making ability of the beta cells of the pancreas
- Stimulate the forming of receptor sites on the cells
- Correct some post-receptor defects on the insides of the cells
- Effect production of glucose by the liver (hepatic glucose production).

Metformin (Glucophage)

- Increases the muscles' ability to use insulin, **decreases glucose production in the liver**, does not promote weight gain, **somewhat** reduces levels of triglycerides and other fats such as LDL or "bad" cholesterol in the blood, and may decrease the absorption of glucose from the intestine. **All these effects usually result in lower blood sugar**. Side effects may include loss of appetite, nausea, and diarrhea. Metformin is available in 500-mg and 850-mg tablets with a maximum dosage of 2,550-mg per day. **Contraindications** for metformin include patients with Type 1 diabetes; **those at risk for cardiovascular disease; those with kidney or liver disease**; serum creatinine levels greater than 1.4 (for men) and 1.5 (for women); those who use alcohol excessively; and children and pregnant women. The use of metformin with any of these can result in serious and potentially fatal side effects such as lactic acidosis. It can be used with oral hypoglycemic agents, acarbose, troglitazone, or insulin.
- Works by suppressing the liver's glucose production and increasing the sensitivity of the cells to insulin.
- Risks: impaired liver and kidney function causing lactic acid buildup in the blood which can be fatal.
- ***This drug can increase your chances of dying from cardiovascular problems by two-and-a-half times.***

Acarbose Drugs (Precose)

- Function: Slows carbohydrate digestion in the small intestine by blocking enzymes that naturally break down the carbohydrates
- Risks: poor digestion, cramps, gas, diarrhea, linked to cancer of kidney in lab rats.

Actos Mercola 9-6-2012

- Thousands of lawsuits due to severe side effects: heart failure, macular edema and bladder cancer
- Worsen heart failure
- 5 years of use- 2-3 times increase in bladder cancer
- Eliminated in Germany and France

Avandia 'concerns'

- More than 500 heart attacks /mo
- 43% increased risk of heart attack
- More than 300 cases of heart failure/mo
- 64% increased risk in cardiovascular deaths
- $3.2 billion in annual sales
- Ten advisors voting for Avandia had conflicts of interest

Latus (Insulin Glargine) 7-01-2009 MedWatch

- Audience - Diabetes healthcare professionals, patients
- FDA notified healthcare professionals and patients that it is aware of four recently-published observational
- studies that looked at the use of Lantus (insulin glargine) and possible risk for cancer in patients with diabetes.
- Three of the four studies suggest an increased risk for cancer associated with use of Lantus.
- FDA is currently reviewing many sources of safety data for Lantus, including these newly published observational studies, data from all completed controlled clinical trials, and information about ongoing controlled clinical trials, to better understand the risk, if any, for cancer associated with use of Lantus. Discussions are also ongoing between FDA and the manufacturer of Lantus as to whether any additional studies evaluating the safety and efficacy of this drug will need to be performed. FDA will communicate the results on its ongoing review to the public, as appropriate, as our review continues.
- The FDA encourages both healthcare professionals and patients to report side effects from the use of insulin glargine to the FDA's MedWatch Adverse Event Reporting Program at www.fda.gov/medwatch/report.htm.
- Read the complete MedWatch Safety summary, including a link to the Early Communication and supporting documents, at: http://www.fda.gov/Safety/MedWatch/SafetyInformation/safetyAlertsforHumanMedicalProducts/ucm170089.htm

Use of diabetes medications by older adults linked with increased risk of heart problems, death

- CHICAGO, IL -- December 11, 2007 -- Older patients treated with the diabetes medications known as thiazolidinediones (Rezulin, Actos, Avandia) (which include rosiglitazone) had a significantly increased risk of heart attack, congestive heart failure and death, compared with the use of other hypoglycemic drugs, The authors suggest that these results provide further evidence that this class of medication may cause more harm than good "These findings prompted a recent hearing by a U.S. Food and Drug Administration advisory panel regarding the safety of rosiglitazone; **however the panel voted against removing rosiglitazone from the market because of insufficient data."** VAN MERKLE: NOT ENOUGH PEOPLE DIED YET…
  Compared to oral hypoglycemic agent combination therapy users, current users of TZD monotherapy had a 60 percent increased risk of congestive heart failure; had a 40 percent increased risk of heart attack; and had a 29 percent increased risk of death.
  "Our findings argue against current labeling of TZDs that warns against use only in persons at high risk of CHF, as we did not identify any subgroup of older diabetes patients who may be protected from adverse effects of TZDs," the authors write. "These findings provide evidence from a real-world setting and support data from clinical trials that the harms of TZDs may outweigh their benefits, even in patients without obvious baseline cardiovascular disease."
  JAMA. 2007;298(22):2634-2643.
  SOURCE: JAMA and Archives Journals

Higher risk of mortality with intensive diabetes treatment

- Intensively targeting blood sugar to near-normal levels in adults with type 2 diabetes at very high risk for heart attack and stroke… actually increases the risk of death
- The most significant result of the ACCORD study, that intensive glycemic control was associated with a higher rate of overall mortality, is not intuitive, and the possible reasons behind this result are intriguing.

Physicians Pay Attention: You Aren't Testing Your Patients Adequately for Kidney Disease!

- Chronic kidney disease, or CKD, is a life-threatening condition that affects more than 1 in 9 adults in the United States.[1] The consequences of inadequately treated CKD are cardiovascular disease and its comorbidities -- heart attack and stroke -- as well as renal failure. A recent Quest Diagnostics Health Trends Report suggests that patients most at risk for CKD -- specifically, those with diabetes or hypertension[2] -- are not being effectively monitored.
- Our analysis, developed in partnership with the National Kidney Foundation, found that a stunning 60% of patients with diabetes and kidney disease did not receive a test for urine microalbumin during a 12-month period. 90% of patients who had hypertension and kidney disease also did not receive the test.
- That's my opinion. I'm Dr. Herman Hurwitz, Senior Medical Director, Quest Diagnostics Mid Atlantic business unit-Philadelphia Campus.

The silent kidney disease epidemic

- More than 26 million Americans over age 20 suffer chronic kidney disease, which represents 13% of the adult population!22
- Diabetes and poorly controlled blood pressure are the leading causes of kidney failure, meaning this epidemic is largely preventable with early detection.28
- Annual blood chemistry tests and regular blood pressure checks can identify deteriorating kidney function early
- End-stage renal disease is the name for kidney failure so advanced that it cannot be reversed. End-stage renal disease means that kidney function is so poor that the patient cannot be kept alive without aggressive and often only partially effective treatment.
- There are 336,000 Americans receiving chronic dialysis treatment right now.22 Another 136,000 Americans are surviving with a kidney transplant.22 These treatments can induce serous side effects that shorten the patient's life span. The annual cost of dialysis alone is about $70,000, most of which is borne by Medicare (which is facing near-term insolvency).29
- The National Kidney Foundation estimates that more than 67,000 Americans die of kidney failure each year,
- Kidney failure is so devastating to aging individuals because it causes startlingly high levels of homocysteine and C-reactive protein, greater incidences of anemia, and a host of other complications.

The Silent Kidney Disease Epidemic and FDA banning Pyridoxamine B6

- The FDA is seeking to ban pyridoxamine, which has been demonstrated to significantly delay the progression of kidney disease.11-13
- Pyridoxamine has been shown to slow the elevation of creatinine, a blood marker of kidney function by 68%.24 These data indicate that many of those destined to perish from kidney disease will be dying prematurely because of the FDA's draconian actions to keep pyridoxamine away from the public.

Kidney Failure -17% function left

- 6-2-2015 51y/o Male 5'9" 218 lbs
- Rapid kidney failure, fistula installed in preparation for imminent dialysis
- 6-23-2015 report from patient that kidney function is now 21%
- 4% improvement in just 3 weeks!!!

FDA approved Exubera by Pfizer, Inc and inhaled insulin

- It will be much more expensive then insulin shots
- Regular insulin will still be needed to some degree
- Effect of Insulin on sinus passages and lung tissue long term is unknown
- Current known side effects: coughing, sore throat, dry throat, dry mouth
- There is some concern about chronic inhalation of a growth protein directly onto the lungs
- Consistent dosage
- Must inhale exactly with the same speed and depth
- Having sinus conditions and colds will lower absorption
- Smoking may alter/increase absorption

Transplantation

- Transplantation of the pancreas or insulin-producing beta cells offers the best hope of cure for people with type 1 diabetes.
- However, people who have transplants must take powerful drugs to prevent rejection of the transplanted organ. These drugs are costly and may eventually cause serious health problems.
- Which will kill first...insulin or transplant?

Insulin Not Preventive

- The Trial:
  - The new Diabetes Prevention Trial -- type 1 diabetes, sponsored by NIDDK, **identifies relatives at risk for developing type 1 diabetes and treats them with low doses of insulin or with oral insulin-like agents in the hope of preventing type 1 diabetes**. Similar research is carried out at other medical centers throughout the world.
- The Result:
  - The theory that small injections of insulin might help prevent the development of type-1 (juvenile onset) diabetes failed.
  - With or Without insulin, groups developed diabetes at similar rates. NEJM, May 30, 2002
  - **My questions: Did other problems develop due to the insulin? Was the severity or progression of diabetes different in these two groups? RARELY DO WE GET THE WHOLE STORY.**

Community Diabetes Lecture

- How long do you want to live? How long do people live with diabetes?
- 19 million people currently diagnosed with diabetes in US (Fastest growing dis)
- 41 million people are developing it.
- Symptoms of diabetes
- Current medical treatment and medications: glucophage, pumps, sprays
- What are the long term complications?
- 80% die of heart disease
- Kidney disease, failure, dialysis ($21,000/mo), transplant (+$150,000)
- Vision problems leading to blindness
- Peripheral neuropathy leading to amputations
- What is diabetes?
- Food, digestion, liver
- Hypoglycemia, Hyperinsulinism, Insulin Resistance-Syndrome X, Diabetes,
- Drugs: impair liver function and digestion, receptor sights, insulin
- $98 Billion spent on diabetes in 1997. The current medical treatment causes the patient to progress needing more and more treatment/drugs etc.
- Diet, vitamins
- What should you do? What tests need to be done on a regular basis?
- Urinalysis and blood testing with proper analysis.

Insulin Side Effects

- Some adverse effects of insulin injections are a higher risk for hypoglycemia, significant weight gain leading to adverse effects on blood pressure and cholesterol levels, hypokalemia, lipodystrophy, hypersensitivity, and increased insulin antibody production.
- **Common side effects from insulin injections include allergic reaction such as itching or hives, acne, swelling in the face or hands, tingling or swelling in the throat or mouth, tightness in the chest, breathing trouble; seizures, fainting, and red, itchy, or swollen skin where the injection was given.**

Type 2 Diabetes starts with:

- Poor diet
- Liver dysfunction
- Hypoglycemia
- Hyperinsulinism
- Syndrome X
- Diabetes

Diabetes Symptoms:

- NO SYMPTOMS in the early stages
- increased thirst
- increased urination
- change in urine
- fatigue
- vision problems: frequent prescription changes
- poor healing
- edema
- neuropathy

ACA's efforts to restore DC Physician Status in Federal Health Plan Successful

- **FOR IMMEDIATE RELEASE** *Oct. 2, 2009*
- (Arlington, Va.) -- After months of intensive negotiations between the American Chiropractic Association (ACA) and Blue Cross Blue Shield Association (BCBSA), doctors of chiropractic are once again designated as "physicians" in the BCBSA Federal Employee Plan (FEP), the world's largest health plan and one that President Obama has identified as a template for future health care reform. The 2010 FEP benefits brochure confirms the change.

  "We are pleased to report that doctors of chiropractic are in the physician category under the Blue Cross Blue Shield Federal Employees Benefit Plan, limited only by state scope of practice authorization," said ACA President Rick McMichael, DC. "The agreement culminates months of negotiations between the ACA and BCBSA and assures that a doctor of chiropractic will be identified and defined as a 'physician' in the FEP. This plan has been specifically and repeatedly identified by Congress and President Obama as the template for coverage and recognition in national health care reform. Physician status under this health plan is critical, and ACA action has assured that this status is once again recognized."

  "We believe this action will be viewed by future doctors of chiropractic as a landmark development in the history of this profession, assuring our rightful role as physicians in the national health care system," Dr. McMichael continued. "Our hats are off to ACA's Immediate Past President Dr. Glenn Manceaux and past Chairman of the Board Dr. John Gentile, who led the ACA team's charge in this effort. We call now on all doctors of chiropractic to join us in the battles that still lie ahead."

  It was in January of this year that BCBSA changed the designation of doctors of chiropractic from "physicians" to "other health care providers." ACA immediately recognized that the change could have a serious impact on whether DCs would be allowed to provide the physician-level services they are educated and licensed to perform—and could even influence whether chiropractic care would later be restricted or completely excluded in a national health care plan using the FEP as a model. ACA promptly contacted BCBSA and requested that the designation be reversed.

What happens in Texas Won't Stay in Texas

- Texas Medical Association (TMA) is now attempting to strip diagnosis from Texas doctors of chiropractic and in effect: run us all into the Gulf of Mexico.
- -So, be forewarned: If Texas doctors of chiropractic lose this battle with the political medicine machine, it will only be a matter of time before they attack in your state; and they will do so armed with their Texas victory as "Exhibit A." For that reason, and no matter what state you live in, I urge you to join thisfight.

DCBCN: www.CBCN.us

- **Board Certified is the highest degree that can be had for a doctor.**
- **People look for Board certified neurologist, Board Certified Plastic Surgeon and Board Certified Chiropractic Clinical Nutritionist**
- **Masters degree is for teaching.**
- **Ph.D is for research.**
- **Current 300 hour Nutrition Diplomate Programs**
- **Texas Chiropractic College**
- Contact Continuing Education department: 952.885.5446
- **Online program**
- Twenty-one 14 hour classes on line
- Two 14 hour classes live (Class 11 and Class 23) on campus for examination
- Each is a stand alone class on a specific topic and can be used as part of recertification hours for DCBCNs

- **From:** brad hannon [mailto:bradhannondc@gmail.com]
  Sent: Monday, January 06, 2014 9:11 AM
  To: aca-members@lists.acatoday.org
  Subject: Re: [ACA-Members] FW: Univ of Western State - Primary Care Program !!
    - … As of May 2014 we can no longer perform DOT exams unless certified, could this lead to similar certifications to perform sports pre participation physicals/take x-rays/request MRI's/request blood work/recommend vitamins/supplements/massage/ultrasound/etc? could insurance companies use certifications against us in a manner where they will only reimburse practitioners who are certified in x-ray/MRI/blood work/nutritional counseling/etc?
- **Glucose and Hemoglobin A1C – Reading Blood Tests**

- **Focus on the Elements – Glucose**

    - **Clinical range:** 65-99mg/dL

Healthy range: 70-90mg/dL. **CRITICAL RANGE**: less than 40mg/dL and over 450mg/dL.

These values may be less for infants to 2 years of age.

DECREASED in:
Hypoglycemia
Hypothyroidism
Early diabetes
Neuroglycopenia (lack of glucose to brain)
Insulinomas (pancreatic islet cell tumors)
Pancreatitis
Hepatitis
Glucagon deficiency
Liver disease
Cancer
Addison's disease (adrenal insufficiency)
Hypopituitarism (deficiency of ACTH or growth hormone)
Hypothalamic lesions
Malabsorption
Starvation/fasting
Alcoholics
Amino acid defects
Fatty acid metabolism defects
Carnitine deficiencies

Drugs:
Insulin
Oral hypoglycemic drugs
Alcohol
Salicylates
Quinine
Haloperidol

Nutrients to consider:
Chromium Picolinate, Zinc, Vanadium (check hair level), Diabetic or Hypoglycemic diet

INCREASED in:
Poor carbohydrate metabolism
Diabetes type I and II
Non-fasting specimen
Stress
Myocardial infarct
Brain damage
CVA
Convulsions
Cushing's disease
Acromegaly and gigantism (with insulin-resistant diabetes, Hypopituitarism later)
Tumors
Liver disease
Pancreatitis
Vitamin B1 deficiency
Hypervitaminosis A

Drugs:
Alcohol Estrogens
Corticosteroids
Phenytoin
Propranolol
Thiazide Diuretics
Corticoids
Oral contraceptives
Thyroid hormone
Progestins
Anti-inflammatory drugs (Indomethacin)
Diuretic and Antihypertensive drugs (Thiazides, Furosemide, Clonidine)
Neuroactive drugs (Phenothiazines, Tricyclics, Lithium carbonate, Haloperidol)

INCREASED in continued:
Adrenergic agonists (Isoniazid, Heparin, Cimetidine, Nicotinic acid)
Many drugs

Nutrients to consider: Chromium; Zinc; Vanadium (check hair level); Diabetic or hypoglycemic diet depending on level of glucose.

- **Focus on the Elements – Glycohemoglobin A1-C**
  - **A low value may precede diabetes due to hyperinsulinism.**
    Clinical range 3.4-6.7% **Healthy range** 4.0-5.4%. **CRITICAL VALUE**: over 10.1%.

DECREASED in:
Hemolytic anemias
Congenital diseases
Blood loss: acute or chronic
Pregnancy
Kidney disease with or without Hemodialysis

INCREASED in:
Poor glucose control
Retinopathy Diabetes mellitus Diabetic neuropathy Pregnancy
Iron deficiency anemia
Splenectomy
Increased serum triglycerides
Alcohol
Albuminuria
Hemochromatosis

Environmental:
Lead toxicity

- **Diabetes: associated factors – This list is not a comprehensive list**
  - Aricept
  - Cortizone
  - Prednisone
  - Dyazide
  - Entex
  - Flovent
  - Zestril
  - Furosemide
  - Lasix
  - Ortho Novum
  - Pamelor
  - Paxil
  - Toprol
  - HCTZ

- **Nutrients**

Primary: (All diabetics should be on these nutrients)
Vit C
Vit E
Magnesium
EPA

Secondary: Chromium Picolinate/GTF
Vanadium
Niacinamide
Fenugreek Gymnema
Sylvestre Bitter Melon

- **Vitamin D and Insulin Resistance**
  - American Journal of Clinical Nutrition, Vol. 79, No. 5, 820-825, May 2004
    © 2004 American Society for Clinical Nutrition
    ORIGINAL RESEARCH COMMUNICATION
  - Hypovitaminosis D is associated with insulin resistance and ß cell dysfunction1,2,3
  - Conclusions: The data show a positive correlation of 25(OH)D concentration with insulin sensitivity and a negative effect of hypovitaminosis D on ß cell function.
  - Subjects with hypovitaminosis D are at higher risk of insulin resistance and the metabolic syndrome.

- **Diabetic Dietary Considerations**
  - No fruit juice.
  - Eat only one fruit and at least 4 fresh vegetables per day.
  - Eat snack every hour and half to 2 hours...eat by the clock.
- **Low Carb Guidelines**
  - Initially, you will be on a protein/veggie diet. Avoid all breads, crackers, pasta, rice, and/or other grains even if they are whole grain, until further notice.
  - When possible, use organic produce and meats. Most of the time, we can control our exposure to the pesticides on produce and the hormones in meats. It is better for your health if you can eliminate your exposure to these chemicals.

All Diabetics on Insulin or Oral Medication start with Category 1

Most Desirable Protein Sources

Almond Butter	Beef	Cashew Butter
Chicken	Eggs	Mackerel, fresh
Nuts (all)	Peanut Butter	Seeds (all)
Salmon, fresh	Tuna, fresh	Turkey

Category 1 Hgb A1C >8 UA Glucose >500mg/dl

Category 1- Fruits: Fresh or Frozen. (Most Desirable Fruit with lowest carbohydrate content) Choose one per day. One cup equals one serving.

Cantaloupe Rhubarb Strawberries Watermelon

- **Category 1 Diabetic**

Category 1- Vegetables: Fresh or Frozen
Most Desirable Vegetables with lowest carbohydrate content)

Asparagus*	Avocado	Bean sprouts
Beans, string	Beet greens	Broccoli
Brussels Sprouts	Cabbage*	Carrots
Cauliflower*	Celery	Chard, Swiss
Collards	Cucumber	Dandelion Greens
Eggplant	Endive	Kale
Kohlrabi	Leeks	Lettuce
Mushrooms	Mustard Greens	Okra
Onions	Parsley	Peppers, any
Pimento	Pumpkin	Radishes
Rutabagas	Sauerkraut*	Spinach
Squash	Tomatoes	Turnips
Water Cress		

*Have these only once or twice per week if you have been directed to do so as a result of a low thyroid.

- **Category 2 Diabetic**

Category 2 Hgb A1C 6-8 UA Glucose 50-500mg/dl

Category 2- Vegetables: Fresh or Frozen (higher carbohydrate content) For a change, twice weekly, you can choose one vegetable from this list.

Artichokes	Beans, dried	Beans, kidney
Beans, Lima	Corn	Hominy
Parsnips	Peas, green	Potato, sweet
Potato, white	Rice	Yams

Category 2- Fruits: Fresh or Frozen (Less Desirable Fruit with higher carbohydrate content) As your glucose becomes more regulated, more choices may be made from this list when Dr. Merkle has given permission based upon test results.

Apple	Apricots	Betty Lou Smackers	Blackberries	Cranberries
Currants	Grapes	Gooseberries	Grapefruit	Guava
Melons	Lemons	Limes	Oranges	Papayas
Peaches	Plums	Raspberries	Tangerines	

- **Category 3 Diabetic**

Category 3 Hgb A1C <6 UA Glucose <50mg/dl

Category 3- Fruits: Fresh or Frozen (Least Desirable Fruit with highest carbohydrate content) Use these only when your glucose had normalized and Dr. Merkle has given permission to choose from this list based upon test results.

Bananas	Blueberries	Cherries	Figs	Kumquats
Loganberries	Mangoes	Mulberries	Pears	Pineapple
Pomegranates	Prunes			

Note: All vegetables should be eaten raw or lightly blanched or steamed (cook until color is vibrant). If you have digestive problems, it is advised that you always blanch or steam your vegetables before eating.

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9
Glucose	low								
Hg A1C	Op								

	Conditions	Considerations
Test 1	Hypoglycemia **Nutrients:** Chromium Picolinate	Liver
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9
Glucose	low	VLOW	LOW						
Hg A1C	Op	Op	high						

	Conditions	Considerations
Test 1	Hypoglycemia **Nutrients:** Chromium Picolinate	Liver
Test 2	Hyperinsulinsim / Danger **Nutrients:** Chromium Picolinate; Vanadium, EPA / DHA	Liver, Meds, Insulin, Glucophage, etc.
Test 3	Hyperinsulinism / Prediabetic **Nutrients:** Chromium Picolinate; Vanadium, EPA / DHA	Liver, Meds, Insulin, Glucophage, etc
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9
Glucose	low	VLOW	LOW	high	HIGH				
Hg A1C	Op	Op	high	Op	Op				

	Conditions	Considerations
Test 1	Hypoglycemia **Nutrients:** Chromium Picolinate	Liver
Test 2	Hyperinsulinism / Danger **Nutrients:** Chromium Picolinate; Vanadium, EPA / DHA	Liver, Meds, Insulin, Glucophage, etc.
Test 3	Hyperinsulinism / Prediabetic **Nutrients:** Chromium Picolinate; Vanadium, EPA / DHA	Liver, Meds, Insulin, Glucophage, etc
Test 4	Probably an Improper Fast	
Test 5	Probably an Improper Fast	

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9
Glucose	low	VLOW	LOW	high	HIGH	high	LOW	VHigh	Op
Hg A1C	Op	Op	high	Op	Op	HIGH	HIGH	VHigh	HIGH

	Conditions	Considerations
Test 6	Diabetes **Nutrients:** Chromium Picolinate, Vanadium, EPA / DHA, Glucoril	Liver, Pancreas, Cholesterol
Test 7	Diabetes **Nutrients:** Chromium Picolinate, Vanadium, EPA / DHA, Glucoril	Probably on Meds, Poorly Controlled Diabetes
Test 8	Diabetes **Nutrients:** Chromium Picolinate, Vanadium, EPA / DHA, Glucoril, Niacinamide, Vit C, Vit E, Magnesium, Zinc	Liver, Pancreas, EVERYTHING
Test 9	Diabetes **Nutrients:** Chromium Picolinate, Vanadium, EPA / DHA, Glucoril	Liver

- **Diabetes: REVIEW**

What is the primary regulator of glucose?

LIVER

When the primary regulator dysfunctions and the glucose goes high then low within a couple of hour, this is called:

HYPOGLYCEMIA

When the glucose goes too high in the blood, this gland is activated:

PANCREAS

This gland will produce what hormone when the glucose is too high:

INSULIN

What forces glucose into the cells? **Insulin**

What allows glucose to enter the cells? **Exercise/need**

A dysfunctioning liver, poor diet/ nutrition and excess insulin production causing the glucose to go very low is called this:

Hyperinsulinism

When the glucose is high and the cells no longer respond to insulin, this condition is now called: **SYNDROME X**

Why does SYNDROME X occur?

Where does all the glucose go when a person is on diabetic medication and insulin?

What are the long term effects of use of insulin?

- **Pediatric News**
  - KEYSTONE, COLO. — Proposed new American Diabetes Association glycosylated hemoglobin goals for children have come under strong criticism from some prominent pediatric endocrinologists.
    This is the first time that the ADA has set glycosylated hemoglobin treatment goals for children. And although the group's final report won't be finished until later this year, the proposed numbers the ADA is circulating for comment by diabetologists— "an HbA_{1c} level of less than 7.5% in 6- to 11-year-olds and less than 7.0% in 12- to 20-year-olds— are just too stringent," Dr. H. Peter Chase said at a conference on management of diabetes in youth.
    "This is coming at a time when *less than a third of kids* are making it below 8.0%. It's the feeling of many of us that this is just going to set families up for failure," said Dr. Chase, professor of pediatrics at the University of Colorado, Denver. Dr. Chase noted that in three recent European series totaling close to 9,000 diabetic children as well as in a 300-patient series from Harvard's Joslin Diabetes Center in Boston, the mean HbA_1 level was 8.6%-9.0%. Only 30%-32%of children in the four studies had an HbA_{1c} level below 8.0%. "Something to keep in mind: Once we have all these new guidelines, can you really implement them effectively in your patients, or are you just going to write them on a piece of paper with both patient and caregiver not paying much attention to them?" said Dr. Satish K. Garg, professor of medicine and pediatrics at the university. Dr. Chase said he fully agrees with ADA officials on the need to reduce HbA_1 levels in the pediatric diabetes population as a whole. He has suggested a target of less than *8.0% as more realistic*. It's achievable with the help of improved, next-generation continuous glucose monitoring systems, greater use of insulin pens and other convenience-enhancing devices, and the newer insulin analogs.
    [What about dietary changes?]

- **Case: AM2655 – Type 1 Diabetic since 1996**
  - Presented in September 2003.
  - Very compliant and well controlled diabetic
  - Primary concerns were allergies and diabetes.
  - Other symptoms: excessive hunger, poor memory/concentration
  - She was nursing her 3rd born child when she came into our office and wanted to make sure she was passing on good nutrition to her child while maintaining good nutrition for herself.
  - She was taking insulin (Humalog) and also on an insulin pump.
    - The insulin seemed to be keeping the blood sugar levels under control.
  - C-Peptide has been zero since 1996.
- **C-Peptide …. Direct from LabCorp**
  - Reference Interval:
  - 1.1-4.4 ng/mL (Note: Reference interval is for fasting patients.)
  - Use: The principal use of C-peptide is in the evaluation of hypoglycemia. Patients with insulin-secreting neoplasms have high levels of both C-peptide and endogenous insulin; in contrast, patients with factitious hypoglycemia will have low C-peptide levels in the presence of elevated (exogenous) serum insulin. C-peptide is also useful in evaluating residual beta-cell function in insulin-dependent diabetics, many of whom have antibodies that interfere with insulin assays. Glucagon-stimulated C-peptide concentration has been shown to be a good discriminator between insulin-requiring and noninsulin-requiring diabetic patients. The diagnosis of islet cell tumor is supported by elevation of C-peptide when plasma glucose is low.
  - Limitations: C-peptide levels are increased with renal failure. (C-peptide is normally excreted by the kidneys.) Instances of insulinoma have been described in which proinsulin was increased but insulin and C-peptide was not.
- **Insulin Auto Antibodies**
  - High Insulin Auto antibodies precede Type 1 diabetes, commonly referred to as insulin-dependent diabetes (IDDM)
  - Insulin Auto antibodies cause pancreatic beta-cell destruction that leads to an absolute insulin deficiency.
  - The clinical onset of diabetes does not occur until 80% to 90% of pancreatic beta cells have been destroyed.
  - Prior to clinical onset, type 1 diabetes is often characterized by circulating autoantibodies against a variety of islet cell antigens, including glutamic acid decarboxylase (GAD), tyrosine phosphatase (IA_2), and insulin.
  - The autoimmune destruction of the insulin-producing pancreatic beta cells is thought to be the primary cause of type 1 diabetes.
  - $91.76 TEST NUMBER 141598 CPT CODE 86337
- **IA2 Antibodies**
  - IA_2 Antibodies - The presence of these autoantibodies provides early evidence of autoimmune disease activity
  - IA2 Antibodies measurement can be useful in assisting the physician with the prediction, diagnosis, and management of patients with diabetes.
  - Autoantibodies to IA_2, a tyrosine phosphatase-like protein, are found in 50% to 75% of type 1 diabetics at and prior to disease onset.
  - These autoantibodies are generally more prevalent in younger onset patients.
  - The risk of diabetes is increased with the presence of each additional autoantibody.
  - The positive predictive value of the IA_2 antibody test is enhanced when measured in conjunction with antibodies to GAD and insulin.
  - $140.00 TEST NUMBER 141531 CPT CODE 86341
- **GAD-65**
  - GAD-65 (Glutamic acid decarboxylase (GAD_{65})) is an enzyme that is produced primarily by pancreatic islet cells.
  - A number of recent studies indicate that patients with Type 1 insulin-dependent diabetes mellitus (IDDM) often have antibodies to GAD_{65}.

- The presence of GAD_{65} autoantibodies has been shown to be a strong predictive marker for the eventual onset of IDDM.
- Measurement of GAD_{65} antibody can also be of use in distinguishing insulin-dependent from noninsulin-dependent diabetics when the clinical history is ambiguous.
- GAD_{65} autoantibodies are often markedly elevated in patients with the stiff-person syndrome (also referred to as stiff-man syndrome), a condition that is associated with fluctuating stiffness and paroxysmal spasms of the trunk and legs.
- $178.50 TEST NUMBER 143008 CPT CODE 83519

- **Case AM22655 - Test Results / Nutritional Recommendations**
  - Hypercholesterolemia: MLK (fish oils)
  - Kidney involvement: Beta Carotene, Vit C
  - Low Minerals: Calcium MCHC, Magnesium Glycinate, Spectramin Chelate
  - Gastro/Intestinal dysfunction: Betaine HCL
  - Low Functioning Thyroid: Energenics, Norwegian Kelp
  - Anemia: Iron Peptonate, Sublingual B12
  - Possible infection and/or inflammation: Vitamin C, Lauricidin

- **Case AM22655 Hair Analysis September 2003**

POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE
Aluminum	1.3	< 7.0
Antimony	< 0.01	< 0.05
Arsenic	0.035	< 0.06
Beryllium	< 0.01	< 0.02
Bismuth	0.015	< 0.1
Cadmium	0.04	< 0.1
Lead	0.31	< 1.0
Mercury	0.26	< 1.1
Platinum	< 0.003	< 0.005
Thallium	< 0.001	< 0.01
Thorium	< 0.001	< 0.005
Uranium	0.065	< 0.06
Nickel	0.16	< 0.4
Silver	0.01	< 0.15
Tin	0.18	< 0.3
Titanium	0.61	< 1.0
Total Toxic Representation		

PERCENTILE: 68th, 95th

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT µg/g	REFERENCE RANGE
Calcium	819	300 - 1200
Magnesium	140	35 - 120
Sodium	630	12 - 90
Potassium	17	8.0 - 38
Copper	20	12 - 35
Zinc	160	140 - 220
Manganese	0.08	0.15 - 0.65
Chromium	0.31	0.2 - 0.4
Vanadium	0.008	0.018 - 0.065
Molybdenum	0.077	0.028 - 0.056
Boron	0.57	0.3 - 2.0
Iodine	< 0.03	0.25 - 1.3
Lithium	0.008	0.007 - 0.023
Phosphorus	185	160 - 250
Selenium	1.1	0.95 - 1.7
Strontium	4.3	0.5 - 7.6
Sulfur	49400	44500 - 52000
Barium	1.7	0.26 - 3.0
Cobalt	0.023	0.013 - 0.05
Iron	8.0	5.4 - 14
Germanium	0.073	0.045 - 0.065
Rubidium	0.014	0.007 - 0.096
Zirconium	0.19	0.02 - 0.42

PERCENTILE: 2.5th, 16th, 50th, 84th, 97.5th

SPECIMEN DATA | RATIOS

- **Case AM22655 Blood Analysis Comparison Sept. 2003 to Dec. 2003**

Test Description / Date:	Current Result 12/01/2003	Current Rating	Prior Result 09/12/2003	Delta	Healthy	Clinical	Units
Glucose	100.00	Opt	90.00		84.10 - 100.01	65.00 - 109.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	4.90	Opt	4.80		4.61 - 5.40	4.50 - 5.70	%
Uric Acid	5.30	Opt	4.80		4.10 - 6.00	2.40 - 8.20	mg/dL
BUN (Blood Urea Nitrogen)	24.00	hi	20.00		13.10 - 18.00	5.00 - 26.00	mg/dL
Creatinine	0.80	Opt	0.70		0.61 - 0.90	0.50 - 1.50	mg/dL
BUN / Creatinine Ratio	30.00	HI	28.00		13.10 - 20.00	8.00 - 27.00	ratio
Sodium	141.00	Opt	142.00		140.10 - 144.00	135.00 - 148.00	meq/dL
Potassium	4.20	Opt	4.60		3.91 - 4.60	3.50 - 5.50	meq/dL
Chloride	104.00	Opt	105.00		100.10 - 106.00	96.00 - 109.00	meq/dL
Magnesium	2.10	lo	2.20		2.21 - 2.50	1.60 - 2.60	mg/dL
Calcium	9.20	lo	9.10		9.71 - 10.10	8.50 - 10.60	mg/dL
Phosphorus	3.40	lo	3.70		3.41 - 4.00	2.50 - 4.50	mg/dL
Calcium/Albumin Ratio	2.00	LO	1.97		2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	6.90	lo	6.80		7.11 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.60	hi	4.60		4.10 - 4.51	3.50 - 5.50	gm/dL
Globulin	2.30	lo	2.20		2.81 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	2.00	hi	2.10		1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.40	Opt	0.40		0.39 - 0.93	0.10 - 1.20	mg/dL
Alkaline Phosphatase 25-150	104.00	Opt	109.00		66.00 - 108.00	25.00 - 150.00	IU/L
LDH	143.00	Opt	147.00		120.10 - 160.00	100.00 - 250.00	mu/mL
SGOT (AST)	25.00	Opt	22.00		18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)	25.00	Opt	19.00		18.10 - 26.00	6.00 - 40.00	mu/mL
GGT	9.00	lo	8.00		10.10 - 36.00	6.00 - 65.00	mu/mL
Serum Iron	102.00	Opt	74.00		85.10 - 120.00	35.00 - 155.00	mcg/dL
Ferritin	45.00	Opt	48.00		30.10 - 218.30	22.00 - 322.00	ng/mL
Cholesterol	214.00	HI	204.00		150.10 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	51.00	lo	50.00		80.10 - 115.00	10.00 - 199.00	mg/dL
HDL Cholesterol	105.00	Opt	100.00		55.10 - 120.00	40.00 - 150.00	mg/dL
LDL Cholesterol	98.00	hi	94.00		50.10 - 75.10	6.00 - 99.10	mg/dL
VLDL Cholesterol	10.00	Opt	10.00		5.10 - 20.10	4.10 - 40.10	mg/dL
Total Cholesterol / HDL Ratio	2.00	Opt	2.00		0.00 - 4.00	0.00 - 5.00	ratio
T4 Thyroxine	6.10	lo	5.70		7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	32.00	Opt	32.00		29.10 - 35.10	24.00 - 39.00	%
T7 Free Thyroxine Index	1.90	lo	1.80		2.61 - 3.60	1.20 - 4.90	
White Blood Count	4.90	lo	5.10		5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	5.25	Opt	5.00		4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	15.60	hi	14.80		13.91 - 15.00	11.50 - 17.00	gm/dL
Hematocrit	47.40	hi	44.10		39.51 - 47.00	34.00 - 50.00	%
MCV	90.00	Opt	88.00		85.10 - 97.00	80.00 - 98.00	cu.m
MCH	29.70	Opt	29.60		28.10 - 32.00	27.00 - 34.00	pg
MCHC	32.80	lo	33.60		33.10 - 34.99	32.00 - 36.00	%
Platelets	173.00	lo	168.00		175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	65.00	hi	67.00		55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	28.00	Opt	25.00		25.10 - 40.00	14.00 - 46.00	%
Monocytes	5.00	lo	5.00		5.10 - 7.10	4.90 - 13.00	%
Eosinophils	2.00	Opt	2.00		0.00 - 4.00	0.00 - 7.00	%
Basophils	0.00	Opt	1.00		0.00 - 0.00	0.00 - 3.00	%
ESR (Erythrocyte Sed Rate)	2.00	Opt	2.00		0.00 - 8.00	0.00 - 30.00	mm/HR
CRP C-Reactive Protein	1.90	hi	1.70		0.00 - 0.00	0.00 - 4.90	mg/L
Creatine Kinase	99.00	Opt	78.00		50.50 - 150.00	24.00 - 204.00	u/l

- **Case AM22655 Type 1 Diabetic since 1996**
  - Within two months she had decreased her insulin by 1/10 to 1/8.
  - 2-23-2004 Overall 25% less insulin
  - 2-27-2004- now at the lowest level she had been at for several years and it appears that the trend is decreasing
  - 3-4-2005 email… "This value is the lowest I've had in all of the past 4 years. **If the trend continues, I will reach a zero insulin value in about 2 years.** Wishful Thinking!"

- **Case AM22655 Jelly Bean-like Bumps**
    - 4-29-2004 “Dr. Merkle: Another interesting development is that I have had jelly bean-like bumps under the skin of my underarm for years that have been swollen. Every doctor that I have ever asked just said it was a plugged duct and I should change my deodorant. I tried many different things but nothing worked. So for the last 2-3 years I've given up and kept everything the same.”
    - “A couple weeks ago I noticed that they are completely gone (unswollen). In my curiosity, I looked into what this swollen thing was and found that there are lymph nodes corresponding to my previous bumps. **In my reading I have notice that fibrous breast tissue has been treated with iodine with a high success rate. Lymph nodes are also present in the breast so are these connected? Also, the lymph system is the one that goes out of whack and makes the antibodies that destroyed my pancreas cells. Coincidence?”**
    - “Have you seen any info on studies of iodine supplementation and the immune system?”
- **Thyroid and Grave’s Disease**
    - The TSH was 10, which was done in April of 2004 by her endocrinologist. He diagnosed Graves disease. I recommended she take Iodine and for her to read: *The Safe and Effective Implementation of Orthoiodo supplementation In Medical Practice* by Guy E. Abraham MD, a former Professor of obstetrics, Gynecology and Endocrinology at the UCLA School of Medicine”
    - This and other articles concerning thyroid and iodine are found at www.Optimox.com
- **Thyroid Improvement**

----- Original Message -----

From: AM22655; To: Van Merkle Sent: Wednesday, June 02, 2004 4:09 PM
Subject: Change in Thyroid Test Results
Hello-
I just had an appointment with my Endocrinologist and got my lab results from last week (5/26/04).
They are the following:
Hemoglobin A1C 6.0 Ref. 4.4-6.1
T4free 1.01 Ref 0.80-1.80
TSH 2.88 Ref 0.4-5.5
T3free 190 Ref 230-420
So by the looks of it, I'm approaching hypothyroid again. He has completely ruled out Grave's disease.
Enjoy the day! 6-2-2004
Dear AM22655,
Glad to hear about the Grave's disease, you are doing well.
Exercise is my choice for maintaining the thyroid level and improving the immune system.
I think you are doing quite well. Dr. Merkle

- “I put a call into my endocrinologist so that he's aware of the situation. I'm also hoping to get another C Peptide test done to see if there is any changes. I am noticing a difference in my low blood sugar readings where I haven't gone below 64 in the past couple of days. It appears that my body is responding to the low and dumping glucose into my system because I have seen a rise in glucose after getting into the mid 60's. So I started reducing my insulin when ever I get to the 60's and found that most of the time it doesn't make much of a difference.
  So if I stay on this course, I'll be off insulin in a few days. :) Enjoy the day!! AM22655”

Personal Vitamin and Supplement Program For:

2 Month Supply

Thursday, December 04, 2003

	Vitamin or Supplement	Dosage Per Day	AM	NOON	PM	BED	Bottles	Quantity		Price	Extended Price
1	Beta Carotene (A – Caro Key Company)	25000 I.U.	1				1	250	@	$18.20	$18.20
2	Betaine HCL (Douglas Labs)	1950 mg.	1	1	1		2	100	@	$11.60	$23.20
3	Calcium MCHC (Douglas Labs)	500 mg.	1		1		1	250	@	$27.55	$27.55
4	Chlorella Plus (Douglas Labs)	1000 mg.	1		1		2	90	@	$13.20	$26.40
5	Energenics (Metagenics)	2	1		1		1	270	@	$31.40	$31.40
6	Extress Super (Key Company)	50 mg.	1				1	100	@	$10.75	$10.75
7	Iron Peptonate (Ferrotate) (Key Company)	25 mg	IRON - Take 1 every other day				1	100	@	$12.40	$12.40
9	Magnesium Glycinate (Douglas Labs)	200 mg.	1		1		1	240	@	$28.15	$28.15
10	Manganese (Douglas Labs)	50 mg.	1				1	90	@	$6.25	$6.25
11	MLK 1000 (Key Company)	1000 mg.				2	1	100	@	$11.60	$11.60
12	Norwegian Kelp (Key Company)	1000 mg.	2		2		2	100	@	$9.90	$19.80
13	Spectramin Chelate (Douglas Labs)	900 mg.	1		1		2	90	@	$17.30	$34.60
14	Sublingual B12 Plus (B12/Folic) (Douglas Labs)	1	1				1	90	@	$8.30	$8.30
15	Ultra Preventive III (Multiple) (Douglas Labs)	2	1		1		1	180	@	$22.05	$22.05
16	Vanadium 250 (Douglas Labs)	250 mcg.	1				1	60	@	$9.75	$9.75
17	Vitamin C (Douglas Labs)	2000 mg.	1		1		1	250	@	$19.40	$19.40
18	Lauricidin (Med-Chem Labs)		Take ¼ Teaspoon 3 times a day				1	72	@	$32.50	$32.50

Supplements Must Be Paid In Full Upon Receipt
Take All Supplements With Meals Unless Otherwise Noted

Speciality / Instructions

SUBLINGUAL B12 - Be sure to chew this supplement up and hold under the tongue for better absorption.

Sub Total	$348.15
Tax	$26.11
Total	$374.26

- **Case AM22655 Results**
  - Prior to treatment (**9-2003**):
    - Daily average insulin usage **24 units/day**
  - Current level with **6 months following Dr. Merkle's advice**:
    - Daily average insulin usage **12 units/day**
    - As of April 2006, she is at 11-12 units/day
      - Along with everything else on the SBN program she has added tyrosine PCA-Rx for heavy metal detox.
    - Complicating factors: Nursing, thyroid problems, toxic elements (uranium), low minerals (iodine, vanadium, manganese), chronic infection
- **Case in point**
  - **Questions for the 70 year old:**
  - Do you think you will live to be as old as your mother? What condition will you be in if you make it? (*and I don't think you will be doing what you are doing*.)
  - *Note: in a follow up letter on 12-4-2000, Joe stated that he had a little more energy and was taking all the vitamins and following the diet faithfully

- **Heart Disease**
- **9 in 10 will develop hypertension**
  - The lifetime risk for the development of high BP is 90%
  - 60% will receive medication
  - "This public health burden will likely increase as the US population ages in the near future.
  - Hypertension: greater than 140/90 JAMA 2002:287(8).
- **Needs a 5 Bypass 2-2002**

- 64 y/o male on one drug for high BP (years)
- Tests show 5 arteries blocked from 75%-95%
- MD says he needs the bypass now
- Interesting facts: **passed Thallium stress test**, swims several times per week with minimal distress. Just returned from Florida and felt very good there. Noticed that cold air causes chest discomfort.
- Wife and 2 daughters are present at consult
- What will you do? What will you tell this patient?

- **Blocked arteries are cleared!**
  - **From:** Hugh Ross [mailto:hugh@reasons.org]
    Sent: Tuesday, November 02, 2010 1:42 PM
    To: Pam
    Subject: Testimonial
  - Dear Dr. Van D. Merkle,
    Thanks to the regimen you put me on. My left anterior descending coronary artery that was 90+% blocked is now 100% clear. This good news was revealed in a recent angiogram procedure. All my heart arteries, including the bypass, are 100% clear. My cardiologist said he had never seen or heard of such an outcome in the history of his practice.
    I am grateful you took such a proactive interest in my health. You may use my testimonial any way you see fit.
    Hugh Ross
- **To optimize chiropractic and nutritional treatment, these factors need to be considered**
  - Low/no physical activity
  - Obesity
  - **Pollution- air, water, food**
  - **Lead, arsenic, mercury, uranium, aluminum etc.**
  - Baby formulas
  - Fast foods/low quality foods
  - Highly processed foods
  - Farming methods- pesticides, herbicides and fertilizers
  - Genetically modified foods
  - Antibiotics and hormones in foods
  - **Drugs and vaccines**
  - Modern diseases- high blood pressure, heart disease, cancers, autoimmune, diabetes, asthma, allergies etc.
  - Stress
  - Electromagnetic fields- TV, computers, microwaves, c-phones, medical scans, power lines etc
- **Rocket Fuel in your food**
  - Government scientists have found potentially unhealthy levels of a rocket fuel chemical in more than 90% of the milk and lettuce sampled nationwide according to data posted on the US FDA website.
  - Perchlorate, the explosive component in solid rocket propellant, gunpowder and fireworks, causing contaminated water and air
    - affects unborn babies, infants and children
    - affects developmental hormones of the thyroid gland
    - lowered IQ, mental retardation, loss of hearing/speech and motor skills
  - EPA safe level is 1ppb
  - Department of Defense safe level is 200-300 ppb.
  - Highest levels found were 71.6 ppb
  - Average was 11.9 ppb
    - not considered dangerous for adults
- **First sign of heart disease … sudden death**
  - The vast majority of diabetic patients develop heart disease, and **80% of them die of heart disease.**
    But 1/3 of people who have diabetes don't know it.
    DDN 2-2002: Recommended that people get more frequent urinalysis to detect kidney disease and diabetes

- **New Cholesterol Standards**
  - Will triple the number of people taking cholesterol drugs from 13.5 million to 36 million people.
  - Americans needing to make lifestyle changes will now number 65 million, up from 52 million.
  - *Reader's Digest* August 2002
- **Statins in America**
  - One in four Americans over the age of 45 take a statin
  - Adverse effects:
    - muscle problems
    - nerve damage in hands and feet
    - immune depression
    - pancreas and liver dysfunction
    - sexual dysfunction
    - Cataracts
    - memory loss
    - increased risk of cancer
- **Statin drugs lead to Diabetes**
  - Researchers looked at five different clinical trials that together examined more than 32,000 people. They found that the higher the dosage of statin drugs being taken, the greater the diabetes risk.
  - "In a pooled analysis of data from 5 statin trials, intensive-dose statin therapy was associated with an increased risk of new-onset diabetes compared with moderate-dose statin therapy."
  - Journal of the American Medical Association June 22, 2011; 305(24): 2556-2564
- **Statins increase vascular calcification in diabetics**
  - CONCLUSION: More frequent statin use is associated with accelerated coronary artery calcification in T2DM patients with advanced atherosclerosis.
- **Statin drugs accelerate cardiovascular disease**
  - One in four Americans over the age of 45 take a statin
  - Adverse effects of statin drugs include muscle problems, nerve damage in hands and feet, immune depression, pancreas and liver dysfunction, sexual dysfunction, cataracts, memory loss, and an increased risk of cancer
  - A new study shows that statin use is associated with a 52 percent increased prevalence and extent of calcified coronary plaque compared to non-users. *Atherosclerosis August 24, 2012*
  - The authors concluded that:
  - *"More frequent statin use is associated with accelerated coronary artery calcification in T2DM patients with advanced atherosclerosis."*
- **Statins Inhibit Vitamin K2 and Stimulate Hardening of the Arteries**
  - OSLO, NORWAY and METUCHEN, NJ – (May 19, 2015) A new paper published in the March issue of Expert Review Clinical Pharmacology states that statins may act as "mitochondrial toxins" with negative effects on the heart and blood vessels not only via the depletion of coenzyme Q10 (CoQ10), but also by inhibing "the synthesis of vitamin K2, the cofactor for matrix Gla-protein activation, which in turn protects arteries from calcification."
  - Vitamin K2 plays a critical role in the activation of matrix Gla protein (MGP), which inhibits soft tissue and cardiovascular calcification. MGP is present in bone, blood vessel, lung, heart, and kidney soft tissues. MGP binds calcium and protects blood vessels from calcification, but only when in its active form, which requires adequate intakes of vitamin K2. **Unfortunately, statins inhibit vitamin K2 synthesis in the body, thereby accelerating coronary artery calcification, an important marker of the progress of atherosclerosis, according to researchers.**
  - "This new paper speaks directly to statins interrupting the mechanism of action by which vitamin K2 inhibits calcification," said Hogne Vik, NattoPharma CEO. "Conversely, research clearly demonstrates that increasing dietary vitamin K2, specifically vitamin K2 as menaquinone-7, can improve vitamin K2 levels in the blood and tissues, thus promoting cardiovascular health."
  - Supporting Vik's statement, a new study, "Menaquinone-7 Supplementation Improves Arterial Stiffness in Healthy Postmenopausal Women," published in the journal Thrombosis and Haemostasis, demonstrated the positive impact of MenaQ7® brand Vitamin K2 as MK-7 (menaquinone-7) on cardiovascular health

through its improvement of arterial flexibility. This study is significant because it is an interventional study with a vitamin K2 dietary supplement, MenaQ7, confirming what previous population-based studies have shown: a positive correlation of vitamin K2 consumption from dietary sources attributes to less arterial calcification and reduced risk of coronary heart disease.
    - Researchers at the R&D Group VitaK of Maastricht University in the Netherlands monitored 244 healthy post-menopausal women for three years using pulse wave velocity and ultrasound techniques. The participants, aged 55-65 years, were randomly assigned to take 180 mcg of MenaQ7 daily for three years, or placebo capsules. Results confirmed that MenaQ7 Vitamin K2 not only inhibited age-related stiffening of the artery walls, but also made an unprecedented statistically significant improvement of vascular elasticity.
    - The cardiovascular study appears in the May 2015 issue of Thrombosis and Haemostasis. To review online, visit the online archive of Thrombosis and Haemostasis
- Cholesterol Drugs Linked To Eye Damage, JAMA Study Confirms Anew
  February 11, 2014 by Sayer Ji GreenMedInfo.com
    - A new study published in *JAMA Ophthalmology* titled, "Association of Statin Use With Cataracts: A Propensity Score-Matched Analysis," reveals that the top-grossing, cholesterol-lowering drug class known as statins is significantly increasing the risk of cataracts
    - *Optometry and Vision Science*, revealing that statin drugs users have a **48% higher risk** of pathological eye lens changes commonly associated with cataract formation
- **US doctors urge wider use of cholesterol drugs**
    - The guidelines, issued Tuesday, Nov. 12, 2013 by the American Heart Association and American College of Cardiology, are a big change.
    - The nation's first new guidelines in a decade for preventing heart attacks and strokes call for twice as many Americans — one-third of all adults — to consider taking cholesterol-lowering statin drugs.
    - The guidelines, issued Tuesday by the American Heart Association and American College of Cardiology, are a big change. They offer doctors a new formula for estimating a patient's risk that includes many factors besides a high cholesterol level, the main focus now. The formula includes age, gender, race and factors such as whether someone smokes.
    - …under the new advice, one-third of U.S. adults — 44 percent of men and 22 percent of women — would meet the threshold to consider taking a statin. Under the current guidelines, statins are recommended for only about 15 percent of adults.
    - Roughly half the cholesterol panel members have financial ties to makers of heart drugs, but panel leaders said no one with industry connections could vote on the recommendations.
    - "It is practically impossible to find a large group of outside experts in the field who have no relationships to industry," said Dr. George Mensah of the heart institute. He called the guidelines "a very important step forward" based on solid evidence, and said the public should trust them.
    - The patents on Lipitor, Zocor and other statins have expired, and they are widely available in generic versions for as little as a dime a day. One that is still under patent protection is AstraZeneca's Crestor, which had sales of $8.3 billion in 2012.
    - Despite a small increased risk of muscle problems and accelerating diabetes in patients already at risk for it, statins are "remarkably safe drugs" whose benefits outweigh their risks, said Dr. Donald Lloyd-Jones, preventive-medicine chief at Northwestern.

- "Chasing numbers can lead us to using drugs that haven't been proven to help patients. You can make someone's lab test look better without making them better," said Yale University cardiologist Dr. Harlan Krumholz, who has long urged the broader risk approach the new guidelines take.
- —"I don't like the concept of 'good foods' and 'bad foods,'" said Dr. Robert Eckel, a University of Colorado cardiologist who worked on the guidelines. "We really want to emphasize dietary patterns."

- **Diagnosing Heart Failure**
  - Before one is diagnosed with heart failure, he/she may think that being tired and short of breath is just a sign of growing older or being "out of condition."
  - Shortness of breath (dyspnea)
  - Difficulty breathing when lying down
  - Swelling of the legs, ankles, and feet (edema)
  - General fatigue and weakness
  - Mild confusion
- **Focus on the Elements – Total Cholesterol**
  - **Clinical Range** 140-200mg/dl **Healthy Range** 150-180mg/dl

DECREASED in:
Malnutrition
Malabsorption
Hyperthyroidism
Myeloma
Polycythemia
Cancers
Leukemia
Severe liver disease
Thalassemia
Chronic anemia
Infection
Inflammation

Drugs: Cortisone; ACTH

Nutrients to consider: EPA/DHA, GLA, check liver function.

INCREASED in:
Hypercholesterolemia
Secondary hyperlipoproteinemias ie: kidney disease
Hypothyroid
Cirrhosis
Diabetes mellitus
Biliary obstruction: stone, carcinoma etc
Kidney disease
Pancreatic disease
Pregnancy
Fasting

Drugs:
Progestins
Anabolic steroids
Corticosteroids
Diuretics
Cholesterol lowering drugs

Nutrients to consider:
EPA/DHA, Garlic, GLA, Fatty Acids, Check Liver Function

- **Focus on the Elements - Triglycerides**
  - **Clinical range** 45-180mg/dL **Healthy range** 80-125mg.dl 95% of tissue storage fat is triglycerides.

DECREASED in
Proteinemia
Malnutrition
Recent weight loss
Vigorous exercise

Drugs: Vitamin C
Alpha1 receptor blockers Phenformin
Clofibrate Asparaginase
Progestins
Metformin
Aminosalicylic acid
Nutrients to consider: chromium, vanadium

INCREASED in
High coronary risk with a low HDL cholesterol
Family trait
Liver disease
Kidney disease
Hypothyroidism
Diabetes mellitus A
lcoholism
Gout
Pancreatitis
Acute myocardial infarction
Acute illness (cold, flu etc.)
Pregnancy
Obesity

- **Focus on the Elements – HDL Cholesterol**
  - **Clinical range** 35-65mg/dL **Healthy range** >60mg/dL. HDL below is considered at risk for heart attack.

DECREASED in:
Sedentary lifestyle
Obesity
Smokers
Diabetes mellitus
Uremia
Stress
Illness
Myocardial infarction
Stroke
Trauma
Starvation
Hypothyroidism
Hyperthyroidism
High triglycerides
Liver disease
Kidney disease
Anemias
Cancer
Family traits

Drugs:
Thiazides
Beta blocking drugs
Anabolic steroids
Progestin
Antihypertensives
Neomycin
Phenothiazine
Probucol

Nutrients: Niacin, Chromium, Exercise

INCREASED in:
Vigorous exercise
Appropriate diet
Moderate alcohol
Insulin treatment
Family traits
Vitamins
Phytosterols
Tocotrienols
Arginine
Antioxidant vitamins

Drugs:
Estrogens
Birth control pills
Clofibrated
Atromid-S

- **The importance of Triglycerides and HDL**
  - HDL is closely related to triglycerides.
  - It appears common for people with high triglycerides to have low HDL's, and these same people also tend to have high levels of clotting factors in their blood stream, which is unhealthy in protecting against heart disease.
  - Therefore, in adults, the triglyceride/HDL "good" cholesterol ratio should be below 2.
    - 2 or less is considered ideal
    - 4 is considered to be high
    - 6 much too high
  - HDL is protective against heart disease.
    - Hence, the lower the ratio, the better!
  - The lower the triglycerides, or the higher the HDL, the smaller the ratio becomes.
  - It is believed that the triglyceride/HDL Ratio is one of the most important predictors of heart disease.
  - A Harvard-lead study author reported:
  - "High triglycerides alone increased the risk of heart attack nearly three-fold."
  - People with the highest ratio of triglycerides to HDL – the "good" cholesterol – had 16 times the risk of heart attack as those with the lowest ratio of triglycerides to HDL in the study of 340 heart attack patients and 340 of their healthy, same age counterparts.
  - The citation also stated that the ratio of triglycerides to HDL was the strongest predictor of a heart attack, even more accurate than the LDL/HDL ratio.
  - - Gaziano JM, Hennekens CH, O'Donnell CJ, Breslow JL, Buring JE. Fasting triglycerides, high-density lipoprotein, and risk of myocardial infarction. Circulation. 1997 Oct 21;96(8):2520-5.
- **Niacin better than Statins**
  - "Niacin is far more powerful than statin drugs (Zocor, Lescol, Lipitor, Mevacor, Pravachol) in raising HDL Cholesterol. DDN 8-19-2002
- **Vitamin C better than Statins**
  - A review of nine different studies indicates adults who regularly take vitamin C pills providing greater than 700 milligrams per day will experience a 25% drop in their risk for coronary heart disease.
  - Major outcomes in moderately hypercholesterolemic, hypertensive patients randomized to pravastatin vs. usual care: the antihypertensive and lipid-lowering treatment to prevent heart attack trial (ALLHAT-LLT). JAMA. 2002;288(23)2998-3007.
  - Studies have demonstrated that statins administered to individuals with risk factors for coronary heart disease (CHD) reduce CHD events. However, many of these studies were too small to assess all-cause mortality or outcomes in important subgroups. Pravastatin did not reduce either all-cause mortality or CHD significantly when compared with usual care in older participants.
    - Knekt P, Ritz J, Pereira MA etal. *Antioxidants vitamins and coronary heart disease risk; a pooled analysis of 9 cohorts. The American Journal of Clinical Nutrition.* 2004;80(6):1508-1520.

- **Focus on the Elements – LDL Cholesterol**
  - **Clinical range** 50- 130mg/dL **Healthy range** 55-110mg/dL. **Critical range** > 160mg/dL
    Note: A low LDL cholesterol can prevent Heart Attacks.

DECREASED in:
Family traits
Severe illness
Proteinemia

Drugs:
Oral estrogen therapy

INCREASED in:
Family traits
Diabetes mellitus
Hypothyroidism
Kidney disease
High saturated and hydrogenated fat diet
Pregnancy
Multiple Myeloma
Cancer
Anorexia nervosa

Drugs:
Anabolic steroids
Antihypertensive drugs
Beta-blockers Progestin
Carbamazepine

Nutrients to consider: EPA/DHA, Chromium, Garlic

- **High LDL helps FIGHT infection**
  - Populations with inverse association with cholesterol and mortality.
    - Chronic kidney disease
    - Congestive heart failure
    - COPD
    - Geriatrics
    - Cancer survivors
      - Archives of Medical Science 2007 3,4A:S74-S80
        - December 2007
- **The benefits of High Cholesterol**
  - **Benefits of LDL**
  - LDL may not only bind and inactivate dangerous bacterial toxins; it seems to have a direct beneficial influence on the immune system also, possibly explaining the observed relationship between low cholesterol and various chronic diseases.
- **VDLD Cholesterol**
  - **Clinical range** 5-40mg/dL **Healthy range** 10-20mg/dL
  - Review and consider "Triglyceride" study. Triglycerides are not soluble in blood and are transported as VLDL.
- **The Benefits of High Cholesterol**
  - **By Uffe Ravnskov, MD, PhD**
    From the Westin A Price Foundation Wise Traditions 8-2009
  - People with high cholesterol live the longest emerges clearly from many scientific papers. Consider the finding of Dr. Harlan Krumholz of the Department of Cardiovascular Medicine at Yale University, who reported in 1994 that old people with low cholesterol died twice as often from a heart attack as did old people with a high cholesterol.1
  - Now consider that more than 90 % of all cardiovascular disease is seen in people above age 60 also and that almost all studies have found that high cholesterol is not a risk factor for women.2 This means that high cholesterol is only a risk factor for less than 5 % of those who die from a heart attack.
  - Six of the studies found that total mortality was *inversely* associated with either total or LDL-cholesterol, or both. This means that it is actually much better to have high than to have low cholesterol if you want to live to be very old.

- **The Benefits of High Cholesterol**
  - **<u>Cholesterol and Chronic Heart Failure</u>**
  - Researchers at several German and British university hospitals found that the risk of dying for patients with chronic heart failure was strongly and inversely associated with total cholesterol, LDL-cholesterol and also triglycerides; those with high lipid values lived much longer than those with low values.11,12
  - Other researchers have made similar observations. The largest study has been performed by Professor Gregg C. Fonorow and his team at the UCLA Department of Medicine and Cardiomyopathy Center in Los Angeles.13 The study, led by Dr. Tamara Horwich, included more than a thousand patients with severe heart failure. After five years 62 percent of the patients with cholesterol below 129 mg/l had died, but only half as many of the patients with cholesterol above 223 mg/l.
  - "High cholesterol is associated with longevity in old people. It is difficult to explain away the fact that during the period of life in which most cardiovascular disease occurs and from which most people die (and most of us die from cardiovascular disease), high cholesterol occurs most often in people with the lowest mortality. How is it possible that high cholesterol is harmful to the artery walls and causes fatal coronary heart disease, the commonest cause of death, if those whose cholesterol is the highest, live longer than those whose cholesterol is low?"
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- About the Author
- Dr. Ravnskov is the author of The Cholesterol Myths and chairman of The International Network of Cholesterol Skeptics (thincs.org).

- **B-Type Natriuretic Peptide (BNP)**
  - This 32-amino-acid polypeptide is secreted by the ventricles of the heart in response to excessive stretching of heart muscle cells in the ventricles. BNP is elevated in left ventricular dysfunction and correlates with both the severity of symptoms and the prognosis in congestive heart failure. BNP is a useful marker of cardiovascular risk, even in people with no clinical evidence of cardiovascular disease. The levels of BNP predict the risk of heart failure, first cardiovascular events, atrial fibrillation, and stroke or transient ischemic attack.
- **BNP: This blood test predicts death, even when everything else looks "great"**
  - Ronald Grisanti D.C., D.A.B.C.O., D.A.C.B.N., M.S.
  - **25% increase in death if the BNP is elevated one year after a heart attack.** And don't forget a BNP persistently **over 80 pg/mL can be an important indicator of when a more invasive approach is needed such as bypass surgery.**
  - In fact, a **BNP twice the normal range can indicate a quadruple risk of death** in folks who don't even have symptoms.
  - There is no other test that has the ability to have this crystal ball power of determining your chances of succumbing to heart failure even if you have no symptoms.
  - As a brief explanation, BNP is a neuro-hormone made in and released from the heart ventricle. The ventricles of the heart make up the biggest part of the heart muscle that squeezes blood through all the rest of the body.
  - When the ventricles are under too much tension or the work load on the ventricles is too much the BNP goes up.
    Basically, if the heart is working overtime to function, the BNP is made in larger quantities to help rescue the heart. The key thing to remember is the BNP will commonly increase long before you have any signs or symptoms that you have any trouble. This is one reason to make sure you keep your blood pressure well within normal levels because it reduces stress on the ventricles
  - On the other hand knowledgeable "research" cardiologists over ten years ago published in the Journal of the American Medical Association stated the **BNP test "was a stronger biomarker for cardiovascular disease and death than the C-Reactive Protein.**
  - One of the reasons you have not heard more about this test is because there is no drug the pharmaceutical has to treat the elevated BNP.
  - **BNP has provided information about the risk of dying than no other test can, yet it has been persistently ignored.**
  - The leading cardiology journal says, "Serial determinations of BNP levels during outpatient follow-up after acute coronary syndrome predicts the risk of death or new congestive heart failure.
  - **How to treat an elevated BNP**
  - The solution is taking **real vitamin E which includes four tocopherols and four tocotrienols (alpha, beta, gamma, and delta).**
  - It turns out that the **tocotrienols** is a precursor to natriuretic hormone and is an essential part of what the body uses to make BNP to help heal the heart.
  - **Gamma tocotrienols can lower BNP.**

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- **BNP: Age Based Ranges – Apex Clinical Laboratories, INC.**
  - Males:
  - <45 yrs 0-125 Pm/ml
  - 45-54 0-138
  - 55-64 0-177
  - 65-74 0-229
  - **75+ 0-852**
  - SBN range: healthy 0-40
  - Labcorp clinical range 0-100
- **BNP: patient heading to congestive heart failure and kidney disease**
  - The patient 57 y/o male, first presented 8-31-2009, diagnosed with kidney disease associated with diabetes. He travels and half-heartedly followed his program and didn't get retested as recommended.
    He called me in February 22, 2010 with complaints of water retention/swelling of the ankles that would come and go. At times it would be real bad but then the next day it would be better. His MD prescribed HCTZ to reduce the fluid. The MD did not do any testing other than a Blood pressure.
    I recommended he do a complete SBN panel with Vitamin D and the BNP.
    I called him immediately and basically told him he is a walking disaster just waiting for something to happen, either kidney disease/failure or heart attack.

Test Description Date:	Current Result 02/23/2010	Current Rating	Prior Result 08/31/2009	Delta
Glucose	239.00	HI	171.00	⊗
Hemoglobin A1C (Gly-Hgh)	9.60	HI	12.80	☺
Uric Acid	7.10	hi	7.00	⊗
BUN (Blood Urea Nitrogen)	27.00	HI	29.00	☺
Creatinine	2.06	HI	2.01	⊗
GFR EST (Glomerular Filtratation R	33.00	LO	34.00	⊗
BUN / Creatinine Ratio	13.00	lo	14.00	⊗
Sodium	137.00	lo	138.00	⊗
Vitamin D 25-Hydroxy	43.20	lo	24.60	☺
B-type Natriuretic Peptide	1,489.50	HI		

- **Pt. W.V. 102 y/o female 124lbs; 18 yrs as patient, presented on 11-9-2010 with unusual fatigue and swelling in the ankles**

Date	BNP	INRpt	Creat	GFR	UA Protein	
11-9-2010	1,865		1.52	31	500	+3 ankles
12-14-2010	2,060		1.43	34	300+	
12-27-2010	2,815	1.00*	1.45	33	300+	+2 ankles
1-10-2011	2,501	1.10**	1.46	33	100+	
1-24-2011	1,620	1.00	1.38	35		
3-7-2011	1,142	1.00	1.35	36		
3-28-2011	1,298	1.00#	1.49	32	50+	+1 ankles
4-29-2011	845	1.00#	1.46	29		

*Pt started taking 2 baby aspirin; **Pt has stated taking 3 baby aspirin
#Pt on 1 baby aspirin/day

1-12-2011 Patient feels better has a little more energy and still no pain of any kind, just tired and wants to go back to work...playing organ every Sunday.

She also wonders when she can start driving again.

- **Troponin I (Cardiac) an Isoenzyme**
  - Certain subtypes of troponin (cardiac troponin I and T) are very sensitive and specific indicators of damage to the heart muscle (myocardium). They are measured in the blood to differentiate between unstable angina and myocardial infarction (heart attack) in patients with chest pain. A patient who had suffered from a myocardial infarction would have an area of damaged heart muscle and so would have elevated cardiac troponin levels in the blood.[1]
  - Elevated blood levels of other commonly used biomarkers such as CK-MB are not specific for cardiac injury because these markers are present at low levels in other tissue types throughout the body. **cTnI is found only in cardiac tissue and, therefore, blood levels are elevated only as a result of cardiac injury.** The National Academy of Biochemistry has proposed myoglobin and cTnI used in conjunction as the ideal markers for the diagnosis of AMI.
  - Although the cTnI assay has been proven to be a valuable diagnostic tool, assay results must always be interpreted in conjunction with other test results such as the ECG or imaging studies and with the patient history and symptoms. In addition, physicians should not rely on a single measurement of any cardiac biomarker; serial measurements are recommended for an accurate diagnosis.
  - **Patients without ST-elevations but with positive troponin results have increased risk of death or myocardial infarction**
  - When interpreting the results of cTnI assays it is important to remember that, although cTnI is **100% specific for cardiac injury and damage, it is not 100% specific for AMI.**
  - Cardiac:
    - Cardiac amyloidosis
    - Cardiac contusion
    - Cardiac surgery and heart transplant
    - Defibrillation
    - Closure of atrial septal defects
    - Coronary vasospasm
    - Heart failure
    - Hypertrophic cardiomyopathy

        - Myocarditis
        - Percutaneous coronary intervention
        - Radiofrequency ablation
        - Supraventricular tachycardia
    - Drug-induced cardiotoxicity is common to all classes of therapeutic drugs. It is essential that cardiotoxicity is detected with a high degree of sensitivity and specificity. The newly developed troponins are especially useful in this context

      Cardiac-specific troponin I levels to predict the risk of mortality in patients with acute coronary syndromes. N Engl J Med 1996;335:1342-9.

- **INR: International Normalized Ratio, INR/PT – used mostly to monitor Plavix or Coumadin dosing**
    - Kerry Prewitt, M.D., FACC Robert I. Hamby, M.D., FACC, FACP
    - The INR ratio helps physicians monitor patients taking anticoagulant medications
    - The INR is a method of expressing the results of a prothrombin time (PT) blood test.
    - The INR is based on an international standard that automatically corrects for variations between labs. Thus, using the INR, the PT measurement from one lab can be compared to a PT measurement from any other lab in the world, even if they use different methods to measure PT. The resulting measurement is often referred to as the INR/PT.
    - The INR/PT was developed specifically for patients who are taking *warfarin*, an anticoagulant that inhibits the formation of blood clots. Warfarin is prescribed to patients who are at elevated risk of a blood clot causing a heart attack or stroke.
    - The INR/PT test is administered routinely to monitor the blood level of the medication, which must kept within a very narrow range to be effective while lessening risk of uncontrolled bleeding.
    - The INR/PT test may not be effective in patients with liver disease or patients suffering from antiphospholipid syndrome. Similarly, patients who are being given *heparin*, another anticoagulant given intravenously during surgery or at the initiation of anticoagulation therapy, may not benefit from the test since heparin does not prolong the PT.
    - Aside from some changes in certain medications that may be ordered by one's physician, no special preparations are necessary for this test. A healthy person will have an INR of 1.0. However, patients taking anticoagulants to reduce the risk of blood clots may be advised to maintain an INR between 2.0 and 3.5. A higher number indicated greater anti-coagulation. Conditions that may warrant a higher-than-normal INR include atrial fibrillation, artificial heart valves, and thrombophlebitis (e.g., *deep vein thrombosis,* superficial vein thrombosis). Superficial vein thrombosis is usually not treated with warfarin.
- **High Blood Pressure**
    - 25% of the adult population in the US have high blood pressure.
    - Decreasing the BP from 160/90 to 140/80 decreased the risk of heart disease more than 30%.
    - Deficiencies of the following nutrients cause or contribute to high BP:
        - Potassium
        - Calcium
        - Magnesium
        - Omega-3 (fish oil or Flaxseed oil)
        - Garlic
        - Hawthorn extract
        - CoQ-10
        - Valerian root.
- **Hydrochlorothiazide Side Effects**
    - Constipation; diarrhea; dizziness; lightheadedness (especially when sitting up or standing); loss of appetite; nausea; temporary blurred vision.
    - Severe allergic reactions (rash; hives; itching; difficulty breathing; tightness in the chest; swelling of the mouth, face, lips, or tongue); confusion; dark urine; decreased urination; fainting; fast or irregular heartbeat; fever, chills, or persistent sore throat; increased thirst; joint pain, swelling, warmth, or redness (especially of the big toe joint); mental or mood changes; muscle pain or cramps; numbness or tingling; red, swollen, blistered, or

peeling skin; seizures; severe or persistent dizziness; severe or persistent nausea or stomach pain; shortness of breath; unusual bruising or bleeding; unusual drowsiness, restlessness, tiredness, or weakness; unusually dry mouth; vomiting; yellowing of the eyes or skin. Metabolic effects: Raises cholesterol, Raises uric acid, Hyperglycemia, Low serum, Magnesium, Hyponatremia, Hypercalcemia, Metabolic alkalosis, Increase VLDL ~ 50%, May decrease insulin secretion, Increases BUN and Creatinine –kidney disease, Increases triglycerides, Increases gall stone formation, Thrombocytopenia, Hemolytic anemia.

  - http://www.drugs.com/sfx/hydrochlorothiazide-side-effects.html#ixzz0qY0nhV6Z

- **Lay Lecture: BP and Pulse**
  - Who lives the longest? How long do you want to live?
  - #1 cause of death
  - What are the effects of aging? Preventable? Delayable?
  - Plaques/ blood clots/ inflammation
  - Medical treatments: surgery, drugs, transplant
  - Circulation: transporting oxygen and nutrients
  - What do these mean? How do they change with age?
    - Blood Pressure
    - Pulse:

• 60	86,400	
• 65	93,600	+7,200
• 70	100,800	+14,400
• 75	108,000	+21,600
• 80	115,200	+28,800
• 55	79,200	-7,200

  - Nutrients: what should you take: basics Vit C, E, Beta Carotene, CoQ10, Magnesium, selenium, carnitine
  - How do you know what you really need?
- **Heart rate reduction and longer life**
  - Humans, with a mean heart rate of 70 b.p.m. and a life expectancy of 80 years, are an exception to the relationship between heart rate and life expectancy shown in mammals, as their life expectancy is higher than that predicted by their heart rate. It has been estimated that a decrease in heart rate from 70 to 60 b.p.m. would further increase life expectancy from 80 to 93.3 years in humans.17
  - **Heart rate reduction reduces myocardial energy expenditure**
    Adenosine triphosphate (ATP) is the primary source of energy in the heart and is used for electrical excitation, contraction, relaxation, and recovery of the resting electrochemical gradients across membranes.
  - The heart may suddenly increase its output up to six-fold, thus requiring a huge amount of energy, unlike other tissues, it only stores low quantities of ATP, just sufficient to support a few beats. However, the low ATP levels in the heart are counterbalanced by a higher level of creatine phosphate which permits availability of ATP from the adenosine diphosphate, through a phosphorylation reaction catalyzed by creatine kinase.23
  - In the heart, ATP is synthesized in the mitochondria from a variety of aerobic substrates.24 At rest, ATP is also generated from fatty acid ß-oxidation (60–70%) and carbohydrate catabolism (30%) including exogenous glucose and lactate catabolism. Amino acids and ketone bodies are utilized as substrates, however, less frequently.
  - Oxford Journals
  - European Heart Journal Supplements
  - Volume 7, Suppl H
  - Pp. H16-H21
  - eurheartjsupp.oxfordjournals.org/cgi/content/full/7/suppl_H/H16
- **SBN Member gets great results – FINALLY!**
  - Patient with Stage 4 liver, pancreas and lung cancer. 10cm, 11cm and 7 mm masses in right lobe of liver and 6 non-cystic nodules in Pancreas and 2.3 cm bladder lesion.

	3rd test 3/4/2010	2nd test 2/9/2010	1st test 12/15/2009
Alk Phos	106.00	130.00	117.00

- LDH 893.00 1,662.00 693.00
- ESR 35.00 87.00 41.00
- Notice how much worse all of these values were from the first and second tests. The patient was on a vitamin protocol at this time, but there were modifications made regarding the supplements the patient was on that were different than what I initially recommended. After the second set of test results came back the Dr sent a communication to our headquarters asking for my help. I reviewed what he actually had the patient take and although he probably thought it would be good enough, it didn't work. I had him go back to the original recommendations and suggested he retest the patient in a couple of weeks to monitor the results. As you can see the results of the 3rd series of tests came back with a marked set of improvements.

- **Nutrients for the heart**
  - CoQ-10 300 mg/day
  - Vitamin C 3,000 mg/day
  - Vitamin E 800 IU/day
  - Selenium 30 mcg/day
  - Magnesium 300 mg/day
  - L-Carnitine 1,500 mg/day
- **Vitamin E**
  - Reduced All Death by 27%
  - Reduced Heart Disease by 41%
  - Reduced Cancer by 22%
  - -*National Institute of Health*
  - **JUST ONE VITAMIN!**

- **Consultation Tip**
  - **HINT: MEMORIZE THIS!!!!!**
  - Most or some of the time a patient will come in wanting a vitamin for a problem…
  - "Mrs. Jones, I know you came in just for the (arthritis in your hands). But do you really think that is the only problem or even the worst problem you have?"
  - "There may be or probably is a more serious problem or problems developing, we may just be seeing the tip of the iceberg. In fact your arthritis may be caused by a more serious condition that we can't see yet which is why thorough testing is so important."
  - Once we get the whole picture then we will know exactly what the real situation is and what to do.
- **Nutrients for high cholesterol**
  - EPA/DHA
  - Niacin
  - Chromium
  - Garlic

Session 3: Liver

- **Total Protein**
  - A depletion of plasma protein causes rapid mitosis of the hepatic cells and actual growth of the liver to a larger size until the plasma concentration returns to normal. A most important function of the liver is to synthesize certain amino acids, other important chemical compounds and so-called nonessential amino acids.
  - To maintain more important functions and amino acids the body will break down muscle and other nonessential tissue from which the liver will manufacture these more important nutrients.
  - There are over 100,000 proteins in the human body.

- **Focus on the Elements – Alkaline Phosphatase**
  - **Clinical Range: 40-120 IU/L Healthy range: 60-80 IU/L.**
  - **Use: An enzyme which normally originates from liver and bone. As a tumor marker. Only three laboratory markers were consistently abnormal, in screening for metastatic carcinoma of breast, prior to clinical detectability of metastases: these were alkaline phosphatase, GGT and CEA.**

DECREASED in:
Excess vit D
Hypothyroidism
Pernicious anemia (deficient in B12 and folic acid)
Anemia
Celiac disease
Malnutrition
Scurvy
Zinc deficiency
Magnesium deficiency
Vitamin C deficiency

Drugs:
Estrogen
Corticosteroids
Trifluoperazine
Clofibrate
Azathioprine
Antilipemics: Atromid, Colestid, Lipitor, Lescol, Zocor, Mevacor, Niaspan, Pravachol and Baycol
Azathioprine drugs – drugs to treat hemolytic anemias, systemic lupus erythematosus, rheumatoid arthritis and leukemias

Nutrients to consider:
Vit C, magnesium, Zinc, potassium

INCREASED in:
primarily bone and liver disease and
Biliary duct obstruction
Degenerative joint disease
Nonfasting test
Bone growth
Healing fracture
Polymyalgia Rheumatica
Chronic fatigue syndrome
Fibromyalgia
Liver cancer
Bone cancer
Osteoporosis
Acromegaly
Osteogenic sarcoma
Primary or Metastatic liver tumor
Bone metastases
Leukemia
Myeloma
Osteomalacia
Rickets
Hypervitaminosis D
Celiac sprue due to vitamin D Malabsorption
Paget's disease
Hyperthyroidism
Hyperparathyroidism
Alcoholics
Biliary obstruction
Cirrhosis
Gilbert's syndrome (genetic trait)
Fanconi syndrome (genetic ; hyperphosphatasemia, idiopathic)

INCREASED in continued:
Pancreatitis
Cancer of pancreas
Cystic fibrosis
Hepatitis
Fatty liver
Diabetes mellitus
Bacterial infections
Viral infections
Pulmonary infarct (1-3 weeks ; after embolism)
Tumors
Peptic ulcer
Intestinal obstruction or ulcer
Steatorrhea
Malabsorption
Ulcerative colitis
Gallbladder obstruction
Bilary obstruction
Gall stones
Inflamed gallbladder
Gastrointestinal problems
Prostate cancer when infiltrates bone
Hodgkin's disease
TB
Infectious mononucleosis
Cytomegalovirus
Congestive heart failure

INCREASED in continued:
Drugs:
Estrogens
Birth control drugs
Methyltestosterone
Phenothiazines
Oral hypoglycemic drugs
Many common and uncommon drugs elevate alkaline phosphatase up to tenfold
Chlorpropamide
Phenobarbital
Phenytoin
Antibiotics
Erythromycin

Nutrients to consider:
Vit D, Lipogen, vit C, pantothenic acid

- **Aspartate Aminotransferase AST (SGOT)**
  - **Clinical 10-35 IU/L Healthy 18-26 IU/L**

DECREASED in:
Uremia
Vitamin B6 deficiency
Metronidazole
Trifluoperazine
Diabetic ketoacidosis
Severe liver disease
Severe kidney disease
Azotemia: a very high BUN and Creatinine
Nutrients to consider: B-Complex, Milk Thistle and B6

INCREASED in:
Hypothyroid
Viral hepatitis
Heart failure
Cirrhosis
Bilary obstruction
Gall stones
Cancer
eclampsia
Myocardial infarction
Pancreatitis
Intestinal infarction
Radiation
Pulmonary infarction
Cerebral infarction
Renal infarction
Burns
Heat exhaustion
Anemia
Chronic alcohol ingestion
Alcoholism
Hepatitis
Cirrhosis
Alcohol
acetaminophen
Viral hepatitis
Hemochromatosis
Gall bladder disease
Reye's syndrome
Infectious mononucleosis
Dystrophy
Dermatomyositis
Muscle diseases

INCREASED in continued:
Trichinosis
Polymyositis
Fibromyalgia
Myositis
Gangrene
Duchenne's muscular dystrophy
Myocardial infarction
Congestive heart failure
Legionnaires' disease
Typhoid fever
Salmonella
typhosa

Environmental:
Radiation
Toxic mushrooms
Lead poisoning
Carbon tetrachloride poisoning

Drugs:
Heparin therapy
Salicylates
Opiates
Tetracycline
Thorazine
Isoniazid
Phenothiazines
Erythromycin
Progesterone
Anabolic' androgenic steroids
Halothane
Methyldopa

INCREASED in continued:
Opiates
Indomethacin

Nutrients to consider: the same as the AST therapy and Pancreatic enzymes and digestive enzymes

Order:
Lauricidin
Vit C
Lipogen
Beta Carotene

- **Alanine Aminotransferase ALT (SGPT)**
  - **Clinical:** 10-40 IU/L **Healthy** 20-28 IU/L

DECREASED in:
Urinary infection
Cancer
Malnutrition
Pregnancy
Alcoholic liver disease

Drugs:
Birth control pills
Estrogens
Progestin

Nutrients to consider: Vit B complex, milk thistle extract, Methionine if sulfur is low on hair analysis, choline and inositol if AST (SGOT) is low.

INCREASED in:
Obesity
Bilary obstruction
Cirrhosis
Hepatitis
Reyes' syndrome
Diabetic acidosis (Glucose over 300)
Leukemia
Congestive heart failure
Pancreatitis
Thrombotic Thrombocytopenic Purpura
Wilson's disease

Environmental:
Parasites
Amebiasis possibly Entamoeba histolytica

Drugs:
Acetaminophen
Alcohol
Narcotics
Heroin
Cholinergics
Codeine
Meperidine (Demerol)
Morphine (heroin)
Antihypertensives
Guanethidine analogs
Hydralazine
Erythromycin
Isoniazid

INCREASED in continued:

Nutrients to consider:
acidophilus if on antibiotics, antronex, liver glandular, Methionine if sulfur is low in the hair analysis, beta carotene, vit c, Lauricidin, choline, inositol

Order:
Lauricidin
Vit C
Lipogen
Beta Carotene

- **GAMMA Glutamyl Transferase (GGT)**
  - **Clinical 5-65 IU/L Healthy 10-35 IU/L.**

    Use: To differentiate liver from bone disease: GGT is not affected by bone like ALP. Unlike AST, GGT is not elevated in skeletal muscle disease. As a tumor marker only three laboratory markers were consistently abnormal, in screening for metastatic carcinoma of breast, prior to clinical detectability of metastases: these were alkaline phosphatase, GGT and CEA.

DECREASED in:
Hypothyroidism
Chronic idiopathic pancreatitis

INCREASED in:
Alcoholics: can be over 3.5 times upper limit
Fatty liver disease
Gall bladder disease
Pancreatitis
Obesity
Renal disease
Cardiac disease
Postoperative state
Cancer
Metastatic carcinoma of liver
Malignant melanoma
Breast, Lung
Kidney
Acute myocardial infarction within 2-4 days
Acute hepatitis
Cholestasis >6 times upper limit
Chronic active hepatitis >7 times upper limit
Cirrhosis >10-20 times upper limit
Obstructive jaundice >5 to 50 times upper limit
Liver metastases >14 times upper limit
Systemic lupus erythematosus
Hyperthyroidism
Epilepsy
Diabetes mellitus
Severe trauma
Post radiation therapy

INCREASED in continued:

Drugs:
Barbiturates
Dilantin (phenytoin)
Antidepressants
Acetaminophen

Nutrients to consider: Beta Carotene, Vit C., Liver glandular, Antronex, Methionine

Order:
Lauricidin
Vit C
Lipogen
Beta Carotene

- **Uric Acid**
  - Clinical range 2.5-8.2 Healthy range 4.0-6.0
  - Excess uric acid can crystallize in joints and causes painful inflammation and severe arthritic symptoms. It is not clear what makes the uric acid precipitate in the joints, but it is not simply because there is too much present. Some patients can have chronically elevated uric acid levels with no other gout symptoms.

DECREASED in:
Caffeine; Tea
High intake of vit C
Possible inappropriate secretion of ADH (antidiuretic hormone) of the posterior pituitary.
Low intake of protein
Kidney disease
Malignant neoplasms

Environmental: Lead poisoning

Drugs:
Aspirin
Antibiotics
Corticosteroids
Theophylline (antiasthmatic drug)
Allopurinol
Probenecid Salicylate
Cinchophen
Corticotrophin
Coumarin
Furosemide (Lasix)
Ethacrynic acid
Thiazide
Diuretics
Acetohexamide
Indomethacin
Barbiturates

Nutrients to consider: Magnesium, B6 and pancreatic enzymes, **Protein**

INCREASED in:
GOUT: All meats, fish, poultry, and peanuts contain small amounts of purines.
Fructose in processed food
Alcohol
Arteriosclerosis
Hypertension
High triglyserides
Exercise and lactic acid
Weight loss, dieting and fasting
Diabetes
Renal failure
Psoriasis
High protein diet
Hypothyroidism
Hypoparathyroidism
Primary Hyperparathyroidism
Polycystic kidneys
Von Gierke's disease
Maple syrup urine disease
Sarcoidosis
Berylliosis
Leukemia
Multiple myeloma
Polycythemia
Lymphoma, especially post irradiation
Cancers
Chemotherapy
Anemias
Resolving pneumonia
Toxemia of pregnancy

INCREASED in continued:

Environmental:
Methyl alcohol
Ammonia
Carbon monoxide
Lead poisoning
Mercury poisoning

Drugs:
Aspirin
Antibiotics
Cytotoxic drugs: Methotrexate,busulfan, vincristine,, Azathioprine
Prednisone
Thiazides
Diuretics
Furosemide
Mercurials
Mitomycin C
L-dopa
Phenytoin sodium
Methyldopa
Ascorbic acid

Nutrients to consider:
Pantothenic acid, cherries, Vit C
Turmeric, ginger, bioflavinoids

- Uric Acid, High Fructose and Liver Disease Mercola 11-11-2015
  - By "stimulating the 'hedonic pathway' of the brain both directly and indirectly," Dr. Lustig noted, "fructose creates habituation, and possibly dependence; also paralleling ethanol."
  - How Excess Fructose Directly Contributes to NAFLD (Non Alcohol Fatty Liver Disease)
  - Writing in the journal *Hepatobiliary Surgery and Nutrition*, researchers noted that the rapid rise in NAFLD prevalence supports the role of environmental factors. (HFCS) in soda is associated with NAFLD, while the study also concluded "ingested carbohydrates are… more likely to directly contribute to NAFLD than dietary fat intake."[5]
  - The fat-forming and pro-inflammatory effects of fructose appear to be due to transient ATP (the chemical storage form of energy) depletion, according to the study. This, in turn, leads to uric acid formation.
  - Fructose increases uric acid through a complex process that causes cells to burn up their ATP rapidly, leading to "cell shock" and increased cell death.
  - After eating excessive amounts of fructose, cells become starved of energy and enter a state of shock, just as if they have lost their blood supply.
  - Cells that are depleted of energy become inflamed and more susceptible to damage from oxidative stress. Fat cells actually become "sickly," bloating up with excessive amounts of fat.
  - Massive cellular die-off leads to increased uric acid levels. Uric acid is a normal waste product found in your blood. It functions both as an antioxidant and as a pro-oxidant once inside your cells.
  - So, if your uric acid levels are too high, it tends to increase to harmful levels inside your cells as well, where it acts as a pro-oxidant. According to Dr. Richard Johnson, who conducted years of research on the role of fructose in obesity uric acid appears to take on a lead role in creating health problems when it reaches levels in your body of 5.5 mg per dl or higher.
  - High uric acid is associated with an increased risk for developing high blood pressure, as well as diabetes, obesity, and kidney disease. The ideal range for uric acid lies between 3 to 5.5 mg per dl.
  - The connection between fructose consumption and increased uric acid is so reliable that a uric acid level taken from your blood can actually be used as a marker for fructose toxicity. I now recommend that a uric acid level be a routine part of your blood screening.
  - One Sugary Drink Daily Increases Your Risk of NAFLD
  - Sugary beverages, including not only soda but also fruit juice, lemonade, fruit punch, and the like, are a major source of fructose in the US diet.
  - New research from Tufts University revealed this could be putting your health at risk, as those who consumed at least one sugary drink daily had a higher risk of liver damage and NAFLD.[6]
  - Sugary drinks are likely one major factor in why even *children* are developing NAFLD at alarming rates. The longer you have NAFLD, the more likely it is to progress into more serious disease like liver fibrosis (accumulation of abnormal fibrous tissue), cirrhosis (accumulation of scar tissue), and NASH.
  - In fact, the *Hepatobiliary Surgery and Nutrition* study linked HFCS consumption to the severity of fibrosis in patients with NAFLD.[7] Therefore, it's very concerning that children are developing this so early in their lives. The following facts about pediatric NAFLD are disturbing:[8]
  - Nearly 10 percent of US children have NAFLD
  - This includes 1 percent of 2- to 4-year-olds and 17 percent of 15- to 19-year-olds
  - Approximately 38 percent of obese children have NAFLD
  - Children with NAFLD are at particular risk of complications and poor prognosis, including the need for a liver transplant in adulthood

Amid Obesity Epidemic, Liver Cancer Deaths Surge

- The death rate for liver cancer increased by 43% since 2000, a new report from the CDC indicated, with fingers pointing to the obesity epidemic as the main root cause.
- For adults 25 and over, mortality from liver cancer rose from 7.2 to 10.3 per 100,000 from 2000 to 2016, according to Jiaquan Xu, MD, of the CDC's National Center for Health Statistics in Hyattsville, Maryland, even as overall cancer mortality rates in the U.S. have dropped.
- "Liver cancer (including intrahepatic bile duct cancer) was the ninth leading cause of cancer death in 2000 and rose to sixth in 2016," wrote Xu in an NCHS Data Brief.

Among men, the age-adjusted death rate increased from 10.5 to 15.0 per 100,000 during this time period (a 43% rise); among women, the death rate increased from 4.5 to 6.3 per 100,000 (a 40% rise).
But while death rates increased for white (48%), black (43%), and Hispanic (27%) adults, the mortality rate among Asians and Pacific Islanders decreased by 22%.
Adults ages 45 to 54 saw a 20% drop in liver cancer death from 2012 to 2016 (from 5.5 to 4.4 per 100,000), while those ages 55 to 64 had stable rates from 2013 to 2016.
Commenting on the report, Ghassan Abou-Alfa, MD, a medical oncologist at Memorial Sloan Kettering Cancer Center in New York City, cited non-alcoholic associated steatohepatitis (NASH) due to obesity and diabetes as the most important risk factor for hepatocellular carcinoma (HCC) in the U.S. today. "Unfortunately, the obesity epidemic is ongoing and is increasing, with a forecasted rate between 40% and 50% by 2030," he said.

Glyphosate Is Causing Fatty Liver Disease

- People with a more severe form of nonalcoholic fatty liver disease (NAFLD) called nonalcoholic steatohepatitis, or NASH, had significantly higher residues of glyphosate in their urine
- That exposure to glyphosate may lead to more severe forms of liver disease is concerning, since those with NASH are at increased risk of liver cirrhosis, liver cancer and higher liver-related and non-liver-related mortality
- -Two-thirds of the total volume of glyphosate applied in the U.S. from 1974 to 2014 was applied in the last 10 years1 — a time during which rates of NAFLD also increased.
- -Glyphosate Exposure Linked to Advanced Liver Disease in Humans
- -Animal Studies Show Low-Level Exposure to Roundup Damages the Liver
- -Choline Deficiency Also Linked to Fatty Liver Disease
- -Verdicts in Glyphosate Trials Side With Victims, Awarding Billions in Damages
- -In August 2018, a jury ruled in favor of plaintiff Dewayne Johnson, Non-Hodgkin lymphoma. Monsanto paid: $78 million.
- -Bayer to pay more than $80 million to Edwin Hardeman, Roundup was responsible for his cancer diagnosis.23
- -Alva and Alberta Pilliod, who claimed they both developed Non-Hodgkin lymphoma after regular use of Roundup. Bayer to pay $2 billion24
- -At least 13,400 lawsuits are still looming from people who claim exposure to Roundup herbicide caused them health problems, including cancer.

Bilirubin

- Clinical range 0.2-1.2 mg/dL
- Healthy range 0.5-0.7 mg/dL
- A major end-product of hemoglobin decomposition. RBC's rupture = hemoglobin is released and split into globin and heme
- Heme = free bilirubin in the plasma, blood, interstitial fluids. Free bilirubin is absorbed into hepatic cells and is combined with glucuronic acid, sulfate and other chemicals to form conjugated bilirubin. A small portion of conjugated bilirubin returns to plasma, but most of the conjugated bilirubin is excreted by the hepatic cells directly into the bile ducts.
- Two types of jaundice:
    - 1. Hemolytic Jaundice: Excess Red blood cell destruction, the liver cannot excrete the Free Bilirubin quickly enough.
    - 2. Obstructive Jaundice: Obstruction of the bile ducts or by damage to the liver cells. The rate of RBC is normal but the Conjugated bilirubin from the liver cells cannot get into the intestines.

DECREASED in:
Caffeine

Drugs:
Barbiturates
Anemia

INCREASED in:
Think gall bladder first
Hepatitis A
Pancreatic cancer possible with bilirubin at 12-25
Pulmonary embolism may elevate bilirubin after 4 days
Myocardial infarction may elevate bilirubin after 4 days
Liver disease
Fasting
Pancreatic disease
Jaundice over 2.4mg/dL
High doses of vit C and/or vit A

INCREASED in continued:
High doses of nicotinic acid
Gilbert's disease (familial benign high bilirubin with normal AST & ALT and urinalysis)
Hodgkin's disease
Sickle cell disease
Alcoholism
Anemia
Wilson's disease
Chronic congenital hemolytic anemia
Bacteremia (with bilirubin up to 10)
Toxic shock syndrome
Malaria

Drugs:
Cholinergics: (Most of these drugs cause direct effects, others cause effects in combination with other drugs)
Tensilon
Prostigmin
Camptosar
Cognex
Mestinon
Levsin
Robinul
Salagen

INCREASED in continued:
Urecholine
Adineton
Aphrodyne
Cytospaz
Zemuron
Transderm
Humorsol
Risperdal
Pilopine
Isopto Carpine/Carbachol
Protopam Chloride
Effexor
Luvox
Quinidex
Donnatal
Cardioquin
Petro
Zoloft
Neurontin
Parafon Forte
Norcuron
Clozaril
Singulair
Ovide
Nicotrol
Zyprexa

INCREASED in continued:
Quinidine
Gluconate
Axid
Ergamisol
Tracium Inj
Nuromax Inj
Nimbex Inj
Mivacron Inj
Propine
Ocufen
Betagan
Acular Ophthalmic Sol
Dextran
Theophylline
Acetaminophen

Nutrients to consider:
B-6 Pyridoxine
HCL/betaine, vit C, EPA/DHA, Gall Bladder procedure

- **The liver: 500 chemical functions**
  - makes proteins
  - stores vitamins iron, minerals and sugars
  - regulates fat stores
  - controls production and excretion of cholesterol
  - regulates blood clotting
  - produces bile for proper digestion of fats
  - purify blood by neutralizing and destroying poisonous substances
  - metabolizes alcohol and other drugs
  - maintaining hormone balance
  - produces immune factors
  - removes bacteria for the blood
  - regenerates its own damaged tissue

Email from Patient
March 20, 1009:

From: Alan O [mailto:alanXXXX@yahoo.com]
Sent: Friday, March 20, 2009 11:17 AM
To: Pam
Subject: My health
Dear Dr. Merkle:

I saw you last in July of 2008 and I want right ahead into the program you told me do the catagory 2 program. I had to go to the hospital today for a chemical burn. I asked to be weighed. I knew I had lost weight but to my surprise... I started out around 460ish now of today I weigh 370(actually the scale said 369.2). I feel AWESOME. I am taking my supplements of which I can afford. Thank you so much and GOD bless you--I have struggled for years with this weight. I feel like a new man. My blood pressure is around 125/85 and I have enjoying walking 2 to 3 miles a day now. I am sending you a most resistant picture of me(about three weeks old)
Your Friend Alan L. O

Primary Symptoms:

1. Reflux/Hiatal Hernia
2. Indigestion in 2 hours or more after meals
3. Belching and burping after eating
4. Indigestion

46 y/o male 5'10" 135 lbs
3-4-2010
Todd: This is one very sick guy. I'd refer this one out for a second opinion. This looks like some sort of Leukemia. One of the worst I've seen. They might filter some of the white blood cells out.
VAN

Alk. Phosphatase 25-530	66.00	Opt
Creatine Kinase	35.00	lo
LDH	1,174.00	HI
SGOT (AST)	36.00	hi
SGPT (ALT)	22.00	Opt
GGT	21.00	lo
Serum Iron	106.00	Opt
Ferritin	817.00	HI
Total Cholesterol	184.00	hi
Triglyceride	163.00	HI
HDL Cholesterol	36.00	LO
VLDL Cholesterol	33.00	hi
LDL Cholesterol	115.00	HI
Total Cholesterol / HDL Ratio	5.10	HI
TSH	2.10	Opt
T4 Thyroxine	9.70	hi
T3 Uptake	29.00	Opt
T7 Free Thyroxine Index (FTI)	2.80	Opt
CRP C-Reactive Protein	1.70	hi
White Blood Count	237.30	HI
Red Blood Count	3.83	LO
Hemoglobin	12.10	lo
Hematocrit	36.10	lo
MCV	94.00	Opt
MCH	31.60	Opt
MCHC	33.50	Opt
RDW	17.50	HI
Platelets	356.00	hi
Polys/Neutrophils (SEGS-PMNS)	31.00	LO
Lymphocytes	13.00	LO
Monocytes	2.00	LO
Eosinophils	2.00	Opt
Basophils	1.00	Opt
Neutrophils/Polys (Absolute)	73.60	HI
Lymphs (Absolute)	30.80	HI
Monocytes (Absolute)	4.70	HI
Eosinophils (Absolute)	4.70	HI
Basophils (Absolute)	2.40	HI
ESR-Erythrocyte Sed Rate, Westerg	7.00	hi

Email with SBN Provider
SBN provider: March 4, 2010:
He looks fine, and his only significant complaint is acid reflux. I did some research, and saw that the only leukemia that causes ALL the white cells to go up (in adults) is CML…and that there is a drug available (Glivec) that has an ~ 90% 5year survival rate. //en.wikipedia.org/wiki/Chronic_myelogenous_leukemia
His previous CBC, nine months ago, showed some "elevated WBC's, probably just a infection".
Interestingly, he was a little reluctant to do the lab work initially, partly because I told him that a significant cause of his reflux was probably stemming from nerve irritation in his thoracic spine. Needless to say, he and his wife are now very glad that I insisted on running the blood work. He is also getting chiro. care 3x/wk, and had his first nearly complete relief from his typical reflux symptoms in 6 months, after just three adjustments.

Todd,

I reviewed your previous email letter again and see that with Glivec he has a 90% 5 year survival rate. The question I want to know is what is the 10 year survival rate? SURVIVAL is the key term, which could mean drooling in agony and misery for 5 years but he didn't die.

What is the rate or return of the CML with medical treatment?

You have a lot more to offer and are truly his Last Best Hope for a long and happy life. I'd do all the testing possible: hair, DMSA etc. as soon as he can to get his system as healthy as possible.

Sincerely,

Van

Email: 3-09-2010

Van,

Thank you for helping prepare me to handle a patient like this. I fully expect to start fielding all manner of (relatively) exotic pathologies from this day forward.

In a review of the things that could of caused this (ionizing radiation, benzene, etc.), he revealed to me that he did numerous 14-hour flights, twice a week for several years. I'm thinking that could be enough rads to express CML. Especially given the data I've seen that suggests that the "diagnostic" (chromosomal translocation) bcr-abl gene is present in one out of every 2 or 3 people, while the clinical neoplastic changes only occur in one in a hundred thousand. This is one of the classic epigenetically-expressed diseases that expose the big lie of genetic determinism.

The big trial that follows all the CML patients who are planning on taking Gleevec forever ($70K/year), has gone on for eight years now, with 90+% remission, which is an eternity to oncologists. But the drug company's own "prescribing information" declares that imatinib causes kidney cancer in rats, and heart failure in (some) humans. A study in Europe (where financial imperatives reward less use of overpriced pharmaceuticals) has shown that 46% of CML patients (in complete metabolic remission for at least 2 years), have maintained remission after CESSATION of imatinib (for at least twelve months).

I reassured my patient that a man who has caught this dysfunction early on, who takes much better care of himself than most of the average, sick, nutrient-deficient, toxin-overloaded people that are represented in all the current studies, stands a decent chance of putting this thing back into some kind of conservatively managed, permanent remission.

Best, Todd Bxxxxxxx, DC

- **Hepatitis A**
  - Disease of **filth**: oral contact with feces of infected people
  - Often no symptoms
  - Older people affected more than younger
  - Before age 5 symptoms are rare
  - Incubation period is one month (can be infected for one month and only then begin to have symptoms
  - Common symptoms: fever, loss of appetite, nausea, vomiting, stomachaches, dark urine, and jaundice
- Symptoms 2-6 months
- No cure
- Vaccination is recommended for travelers. Sewage workers, food, health care workers and daycare workers should not be routinely vaccinated.(?) Under 2 years of age cannot be vaccinated
- Immunoglobulin can be given after infection to ameliorate symptoms NOTE: antibodies indicate immunity
- Mild, self-limiting disease in 4-8 weeks with no treatment.
- Pediatrics: "Most HAV infections in young children are asymptomatic… Clinical hepatitis occurs in fewer than 10 percent of infected children."
- NIH: "Most people who have hepatitis A get well on their own after a few weeks."
- 90% of children have no symptoms
- Most cases are found in Third World areas, outside the US.
- Why is the U.S. the only country in the world which recommends the vaccine on a mass scale?
  - CDC recommends vaccination for all children between 12 months and 12 years of age
  - CDC recommends vaccination for travel south of the US and just about everywhere overseas.

- **Hepatitis: Inflammation of liver**
  - If the liver is functioning poorly, so is almost everything else in the body.
  - Common signs: Rashes, eczema, aches and pains, and other organ failures
  - Increased risk of liver cancer
- **Hepatitis B: Blood borne transmission**
  - Incubation 45-180 days.
  - **Not all infected people get symptoms**
  - **Most get sick, recover and have immunity from then on.**
  - Symptoms: loss of appetite, tiredness, muscle and joint pain, stomachaches, diarrhea and vomiting, jaundice.
  - A large number develop chronic infections **(WHY?)**
  - 200,000 new cases of HBV, 20,000 remain chronically infected
  - 1.25 million Americans now have chronic HBV
  - 5,000 die each year from this liver disease and the liver cancer HBV caused
  - most common in drug users and sexually active 20-39 year olds, also **be aware of tattoos**, ear piercing, acupuncture, needles
  - Vaccine is available: its effectiveness is questionable, side effects can be more serious than the hepatitis B.
  - **NOTE: antibodies indicate immunity**
  - Medically the goal is to vaccinate everyone under 18 years of age.
- **Hepatitis C: the nasty one**
  - The most common blood borne infection in the USA
  - 4 million: most are unaware they are chronically infected
  - The most frequent reason for liver transplants
  - Medical expenses more than $600 million per year
  - Blood borne: drugs, tattoos, piercings, blood transfusions (most before 1992), transplants, accidental needle sticks
  - Can be sexually transmitted
  - Without/before drugs: 80% of infected people never get rid of it, but **20% do get rid of it!! NEJM**
  - **50% of children are completely cleared in 20 years NEJM**
  - 70% have chronic liver disease leading to liver cancer and death
  - 40% of all liver disease in USA is HCV

Medical Tx of HCV

- TX: Interferon and Ribavirin-poor results and severe side effects: fatigue, hair loss, low blood count, confusion, depression, psychiatric problems, thyroid disease, seizures, acute heart & kidney failure, eye & lung problems, hearing loss, blood infection, serious anemia, birth defects
- Latest 'new' treatment: Pegasys and Peg-Interon (Long acting interferon) are once a week injections combined with ribavirin.
- Six months after the 48-week treatment stopped 56% of patients had eliminated all traces of the virus.
- same side effects as Interferon and Ribavirin
- Research funded by Roche, the Swiss pharmaceutical company that is developing Pegasys and a new brand of ribavirin DDN 9-24-2002

- **Hepatitis C: signs**
  - flulike symptoms-malaise, chills, fever, indigestion, loss of appetite, diarrhea
  - pain at upper right side of abdomen beneath rib cage
  - stomach bloating
  - pain in the joints
  - mood disturbances, mental fatigue
  - frequent or continuous headaches
  - exhaustion, and poor sleep patterns
  - bad reactions to alcohol or fatty food
  - fluid retention or puffy face
  - itchy skin
  - lymph node swelling
  - frequent urinatioin
  - blood sugar disorders
  - irregular menses, lower libido, menopausal symptoms
  - chest pains
  - dizziness or vision problems
  - numbess in the extremities
  - **good reasons to do a comprehensive blood test!**
- **Hepatitis C stats**
  - 200,000 Ohioans
  - $30,000- cost of drugs
  - harsh side effects of drug treatment
  - $340,000- cost of liver transplant
- **Hepatitis C Treatment**
  - HCV RNA, Interferon, Ribavirin
  - Expensive
  - Not highly effective
  - Only sometimes efficacious
  - Many serious side effects
- **Hepatitis C Cases Soar Due to Drug Use- USA Today 5-8-2015**
  - "We're in the midst of a national epidemic." and the rising infection rates "staggering".
  - John Ward, CDC3.2 million Americans have Hepatitis C
  - Newly approved drug- Sovaldi, cures hepatitis C in 90% of patients- cost $84,000.00 for a 12 week treatment.
  - The increased is due drug use and the prescription injected painkiller called Opana.
- **Hepatitis C Viral Load.**
  - High viral load: more than 800,000 IU/mL.
  - If your viral count is high at the start, it can be hard or impossible for your treatment to completely get rid of the virus.
  - Some researchers consider high levels anything above 400,000 IU/mL.
  - Low viral load: This is a count below 800,000 IU/mL. Your odds that treatment will make all or most of your HCV go away are better than with a high viral load.
  - Undetectable viral load: This doesn't necessarily mean you have no viruses. Undetectable levels can differ, depending on how precise your test is, the lab you use, and how it handled the blood sample. You still may have viruses, but too few for the tests to pick up.

Hepatitis C Viral Load.
Two newer tests -- transcription-mediated amplification (TMA) and polymerase chain reaction (PCR) -- can measure as few as 5-10 IU/mL. A third one, called branched-chain DNA (bDNA), may miss viral loads below 615 IU/mL.
Sustained virological response: no trace of HCV in your blood 12 weeks after you stop treatment. It's also called a viral cure.
It means your disease is in remission and your hep C is no longer active. Your liver may start to heal, and your chances for liver failure and liver cancer may drop.
To confirm, you may need to repeat the test or take a qualitative test that checks if you're negative for any trace of viral genetic material.

Pharmaceutical companies are developing new drugs in only two therapeutic areas these days -- cancer and rare diseases.
by Milton Packer MD April 18, 2018 MedPage 4-19-2018
Most new drugs for cancer and rare diseases are being priced above $400,000 a year per patient. Some at $1 million per treatment. And prices continue to soar.
The analyst asks: "Is curing patients a sustainable business model?"
According to an article by Tae Kim on CNBC, Goldman Sachs issued a report (by Salveen Richter): drug developers might want to think twice about making drugs that were too effective. Richter's report, entitled "The Genome Revolution," was issued on April 10 and says:
"such treatments offer a very different outlook with regard to recurring revenue versus chronic therapies with sustained cash flow.

Now it seems that curing people isn't profitable enough.
Just imagine a company has a new drug that can cure a disease in >90% of patients with one dose.
- The obvious suggestion: Could you possibly make the drug a bit less effective, so that people would need to continue to take it on an ongoing basis, so you would be able to generate more money?
- Or could we propose that you charge $1 million for a course of treatment?
Early this year, Spark Therapeutics introduced its new drug (Luxturna) for a rare form of blindness. It promises a cure with a single dose. The price tag is $425,000 per eye. That means $850,000 for a cure.
The Goldman Sachs report cites the example of Gilead Sciences (ticker symbol GILD), which gained approval for its novel hepatitis C treatment Sovaldi in 2013, followed by Harvoni less than a year later.
Their introduction was a landmark event: a near-certain cure for hepatitis C in 12 weeks. When Harvoni was introduced, a 12-week course in the U.S. cost $94,500. Interestingly, in India, the same 12-week course of treatment cost only $900. (I assume that the company was still making a profit on its sales in India.)
In her report, Ms. Richter notes that U.S. sales for the hepatitis C treatments peaked at $12.5 billion in 2015, but have been falling ever since. Goldman estimates the U.S. sales for these treatments will be less than $4 billion this year. Ms. Richter laments this development.
She writes: "GILD is a case in point, where the success of its hepatitis C franchise has gradually exhausted the available pool of treatable patients," the analyst wrote. "In the case of infectious diseases such as hepatitis C, curing existing patients also decreases the number of carriers able to transmit the virus to new patients, thus the incident pool also declines."
"[Gilead]'s rapid rise and fall of its hepatitis C franchise highlights one of the dynamics of an effective drug that permanently cures a disease, resulting in a gradual exhaustion of the prevalent pool of patients," the analyst wrote. "... diseases such as common cancers -- where the 'incident pool remains stable' -- are less risky for business."

Want to make money? Develop drugs that cure nothing, but yet promote long-term use and dependency, and shorten life. Bankers and payers will love it.
We have those drugs already. They're called opiates.
04.18.2018
— Spring Texan
Thanks. I share your anger. It's insane that pharma is still mouthing stuff about "value-based pricing" (meaning, if we save your life, no price is too extortionate regardless of what our costs are) and patting itself on the back.

04.18.2018
— tbran10
Let's talk basics. The allopathic medicine model focuses on treating the symptoms of disease states add nauseam.
TWO Trillion dollars are spent annually treating the symptoms. Seniors consume 50% of the Rx drugs per year. That's 225 BILLION dollars worth.
It's not space science. It's common sense that we have a toxic food lifestyle in the US impacting the majority of Americans.
USDA knows it and NIH denies it.
The US spends about 50% more per capita on healthcare than any other country and we don't have longevity in life. In fact life span in the US has flattened. Isn't it time we have a honest public discussion on our sickcare system.

Cure for Hepatitis B Pushed
Disease affecting 257 million people needs better treatment by Ed Susman, Contributing Writer, MedPage Today April 10, 2019
VIENNA – The International Liver Conference kicked off here today with a push to find a cure – not just maintenance treatment – for the one quarter billion people living with hepatitis B virus (HBV) infection, but researchers said that finding a cure could be elusive, and it certainly won't come quickly.
"I think we are still at least 3 years away from starting a Phase III clinical trial that would probably include a combination therapy," said Massimo Levrero, PhD, a member of the governing body of the International Coalition to Eliminate HBV (ICE-HBV) and director of the Cancer Research Centre of
Lyon in France.
Levrero, one of several participants in a press conference at the start of the 5-day annual meeting of the European Association for the Study of the Liver, told MedPage Today that there are numerous drug treatment candidates being tested to attack various structures of the virus, but he compared HBV to HIV rather than hepatitis C virus – for which an 8-week functional cure is now available.
"Hepatitis B is very different than hepatitis C, and it is very difficult to eradicate, as is HIV," he said.
While HIV eradication is very rare – with only two known and verified cures worldwide, hepatitis B has been cured by various methods – but in less than 10% of cases, said Peter Revill, PhD, senior medical scientist at the Victorian Infectious Diseases Reference Laboratory in Melbourne, Australia. At the press conference, Revill suggested that as many as one million people in the world have been cured of hepatitis B – but there are an estimated 257 million people living with hepatitis B infection.

Hepatitis C: Etiology
The bodies immune system attacks virus in two ways. One by producing antibodies that destroy the virus as in HVA and HVB.
The HVC virus has the ability to alter it “appearance”, essentially changing its form every time the immune system devises a response to it. It may be that, as with HIV, even more new and resistant strains begin to develop when drugs are used to attack HCV

- Thus, since the antibodies can't figure a way to kill the virus. The body sends cyto-toxic (Killer) T lymphocytes to destroy the liver cells that the virus has attacked.
- There is a lot of liver and it is good at regenerating itself, however, eventually—sometimes after many years—fibrosis and further inflammation progress to cirrhosis.
- **In fact, the virus may be less significant than the immune system response that it provokes.** Some people with high viral loads have very little damage.

- **Hepatitis to Cirrhosis**
  - Lymphocytes, while attacking the virus, also harm the liver.
  - Causing scarring, called fibrosis
  - When scarring is severe enough to impede blood flow, this is called Cirrhosis
  - Blood backs up into other organs and tissues and serous fluid leaks into the peritoneal cavity, this is called ascites.
- **Dismissed by specialist**
  - Patient E, with Hepatitis C for 5+years.
  - Started her SBN program and in 3 months her 'viral load' was back to normal.
  - Her MD was upset that she didn't do the Interferon and dismissed her as an uncooperative patient.
  - She told me that the MD seemed upset that she improved so much without the drugs.
- **Hepatitis B and C screening**
  - Hepatitis Profile VIII (Hep. B and C Profile) is a test that tests, evaluates, and stages the patient with HBV and HCV.
  - The Hepatitis Panel, Acute would be a screening for ABC.
  - The Hepatitis C Antibody EIA-2 test is a good screening test for Hepatitis C Virus infection.
    - When this test is positive it can indicate chronic Hepatitis, recovered or recent acute hepatitis C. This can be a false positive, if there are no symptoms, low-risk behavior and a normal SGPT (ALT) level then the diagnosis of HCV can be supported or confirmed by the recombinant immunoblot assay (RIBA) or tests for HCV RNA.
  - The Hepatitis QuantaSure is really only done if a patient is a known positive for Hep. C.
  - Hepatitis C Virus (HCV) QuantaSure ™ Plus, Quantitative, by TaqMan ™ PCR Test number 550033 CPT code 87522 This will measure the number of copies of Hep C virus in HCV positive patients.
  - **The HBV quantitative real-time PCR assay has a quantitative range of 10 to 1,000,000,000 IU/mL.**
    - An HBV viral load of greater than 2,000 IU/mL indicates that the virus is active and has the potential to cause damage to the liver.
    - If the HBV viral load is above these numbers, treatment is considered necessary.
    - Instead of writing 100,000 copies/mL, labs may report it as one to the fifth power or 105 or 5 log. In mathematical jargon, a "log" equals a number multiplied by 10. If you have a viral load of 105 copies/mL, it is actually, 10 X 10 X 10 X 10 X 10 or 100,000. When you read a medical report that describes a patient with a high viral load as having HBV DNA that is greater than 100,000 copies/mL, it may be written HBV DNA > 5 log copies/mL or 105 copies/mL.
    - Every log rise or fall is equivalent to a ten-fold increase or decrease. A change from 10 to 100 is a 1-log increase; a change from 1,000,000 to 10,000 is a 2-log decrease. Someone with a viral load of 300,000 copies/mL who experiences a one-log decrease achieves a viral load of 30,000 copies/mL. When someone is treated, doctors monitor HBV DNA levels carefully.
    - A one- or two-log decrease in viral load means an antiviral is working. A one- or two-log increase means an antiviral has stopped working and that viral resistance has developed.
    - An undetectable viral load (which means fewer HBV DNA than a lab's equipment can identify) generally is lower than about 300 copies/mL. •Moderate levels of HBV DNA begin at about 10,000 to copies/mL. •High levels of HBV DNA can exceed 100,000 copies/mL.
    - It is not unusual for someone with the hepatitis B "e" antigen (HBeAg) to have millions of HBV DNA

Leslie's Test - June 21 and July 6, 2014

Test Description Date:	Current Result 07/06/2004	Current Rating	Prior Result 06/21/2004	Delta	Healthy	Clinical	Units
Glucose	71.00	lo	111.00	☺	80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.00	Opt	6.00	☺	4.61 - 5.40	4.50 - 5.70	%
Uric Acid			5.40		4.10 - 6.00	2.40 - 8.20	mg/dL
BUN (Blood Urea Nitrogen)	17.00	Opt	11.00	☺	13.10 - 18.00	5.00 - 26.00	mg/dL
Creatinine	0.70	Opt	0.80		0.61 - 0.90	0.50 - 1.50	mg/dL
BUN / Creatinine Ratio	24.00	hi	14.00	☹	13.10 - 20.00	8.00 - 27.00	ratio
Sodium	135.00	LO	130.00	☺	140.10 - 144.00	135.00 - 148.00	meq/dL
Potassium	4.00	Opt	4.60	☺	3.91 - 4.60	3.50 - 5.50	meq/dL
Chloride	100.00	lo	94.00	☺	100.10 - 106.00	96.00 - 109.00	meq/dL
Magnesium			1.60		2.21 - 2.51	1.60 - 2.60	mg/dL
Calcium	9.30	lo	9.20	☺	9.71 - 10.10	8.50 - 10.60	mg/dL
Phosphorus			2.80		3.41 - 4.00	2.50 - 4.50	mg/dL
Calcium/Albumin Ratio	2.20	Opt	2.36		2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	6.50	lo	7.00	☹	7.11 - 7.61	6.00 - 8.50	gm/dL
Albumin	4.20	Opt	3.90	☺	4.10 - 4.51	3.50 - 5.50	gm/dL
Globulin	2.30	lo	3.10	☹	2.81 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	1.80	hi	1.30	☹	1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.60	Opt	0.60		0.39 - 0.93	0.10 - 1.20	mg/dL
Alkaline Phosphatase 25-150	96.00	Opt	290.00	☺	66.00 - 108.00	25.00 - 150.00	IU/L
Creatine Kinase			103.00		64.00 - 133.00	24.00 - 173.00	u/l
LDH			280.00		120.10 - 160.00	100.00 - 250.00	mu/mL
SGOT (AST)	34.00	hi	146.00	☺	18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)	31.00	hi	115.00	☺	18.10 - 26.10	6.00 - 40.00	mu/mL
GGT			1,890.00		10.10 - 36.00	6.00 - 65.00	mu/mL
Serum Iron			74.00		85.10 - 120.00	35.00 - 155.00	mcg/dL
Ferritin			1,255.00		30.10 - 218.30	10.00 - 291.00	ng/mL
Cholesterol	194.00	hi	1,090.00	☺	140.10 - 170.00	100.00 - 199.00	mg/dL
Triglyceride	82.00	Opt	4,920.00	☺	80.10 - 115.00	10.00 - 199.00	mg/dL
HDL Cholesterol	71.00	Opt	74.00		55.10 - 120.00	40.00 - 150.00	mg/dL
VLDL Cholesterol	16.00	Opt			5.10 - 20.10	4.10 - 40.10	mg/dL
LDL Cholesterol	107.00	HI			50.10 - 75.10	6.00 - 99.10	mg/dL
Total Cholesterol / HDL Ratio			14.70		0.00 - 4.00	0.00 - 5.00	ratio
T4 Thyroxine			1.80		7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake			43.00		29.10 - 35.10	24.00 - 39.00	%
T7 Free Thyroxine Index (FTI)			0.80		2.61 - 3.60	1.20 - 4.90	
White Blood Count	6.50	Opt	3.40	☺	5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	2.55	LO	3.38	☹	4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	8.40	LO	11.00	☹	13.30 - 15.20	11.50 - 17.00	gm/dL
Hematocrit	25.70	LO	31.50	☹	39.51 - 47.00	34.00 - 50.00	%
MCV	101.00	HI	93.00	☹	85.10 - 97.00	80.00 - 98.00	cu.m
MCH	33.10	hi	32.50	☹	28.10 - 32.00	27.00 - 34.00	pg
MCHC	32.80	lo	34.90	☹	33.10 - 34.99	32.00 - 36.00	%
Platelets	355.00	hi	154.00	☹	175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	75.00	HI	33.00	☺	55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	12.00	LO	40.00	☹	25.10 - 40.00	14.00 - 46.00	%
Monocytes	9.00	hi	27.00	☺	5.10 - 7.10	4.90 - 13.00	%
Eosinophils	3.00	Opt	0.00		0.00 - 4.10	0.00 - 7.00	%
Basophils	1.00	hi	0.00	☹	0.00 - 0.00	0.00 - 3.00	%
ESR (Erythrocyte Sed Rate)	59.00	HI	60.00	☺	0.00 - 8.00	0.00 - 30.00	mm/HR
CRP C-Reactive Protein			6.10		0.00 - 0.00	0.00 - 4.90	mg/L
Carbon Dioxide (CO2)	19.00	lo			20.90 - 26.10	17.00 - 30.00	mmol/L

- **Leslie's Medications**
  - Ambien
  - Effexor
  - Gemfibrozil
  - Lisinopril
  - Loratadine
  - Ranitidine
  - Toprol
  - Tylenol
  - Warfarin Sodium
  - Welchol
  - Xalatan
- **Leslie's Supplement List**
  - FOR 2 WEEKS:

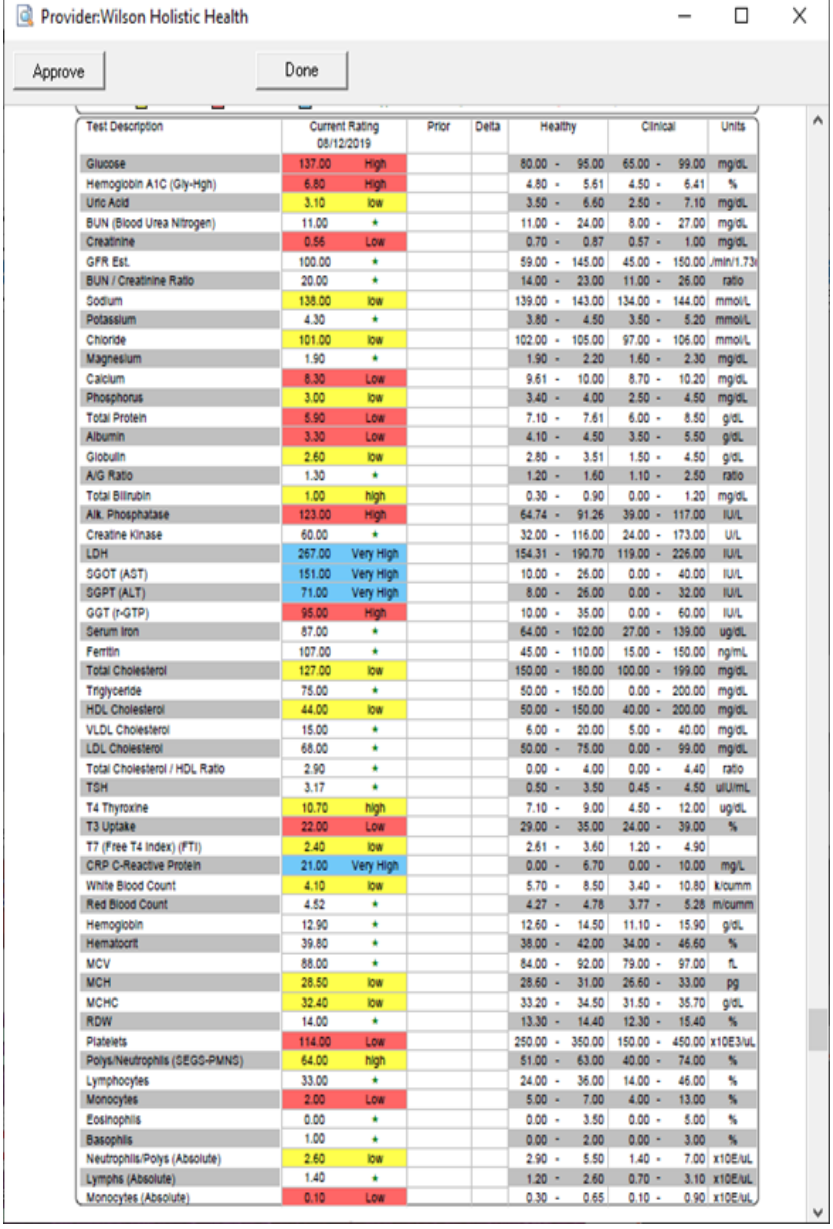
Greens First	2/day
Glutagenics	3 tsp./day
RM-10	9/day
Liver	6/day
Lauricidin	1/2 tsp. 4 times a day,
Vitamin C Powder	2 tsp./day
Acidophilus	2/day,
Sublingual B12	6/day
CO Q 10	2/day

    In two weeks retest the SGOT, SGPT, GGT, CBC and ESR
- **Leslie's Supplement List - Post Retest**
  - Bio-Dophulis 2
  - Calcium MCHC 3
  - Chlorella 4
  - Co-Q-Melt 2
  - Glutagenics 3 tsps
  - Liver 6
  - Mag Malate 3
  - Spectramin Chelate 2
  - Pwdr Vitamin C 2 tsp.
  - Greens First 2
  - Sublingual B12 Plus 6
  - Ultra Preventive 2
  - RM-10 9
  - Lauricidin 4

SBN member JW: 8-2019
Pt: female 62yr/o; 5'3", 206lbs

Presenting symptoms:
1. Osteoporosis M81.0
2. Irritable Bowel Syndrome K58.9
3. Anxiety Disorder F41.9
4. Obesity E66.9

Medications:
Alprazolam – Insomnia
Atenolol – hypertension
Gabapentin – antiepileptic
Hydroxyzine - anxiety
Lidocaine – pain
Lomotil - diarrhea
Metformin HCL – diabetes
Methocarbamol - pain
Naprosyn - pain
Trazodone -antidepressant


Provider:Wilson Holistic Health

Approve Done

Test Description	Current Rating 08/12/2019		Prior	Delta	Healthy	Clinical	Units
Glucose	137.00	High			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgb)	6.80	High			4.80 - 5.61	4.50 - 6.41	%
Uric Acid	3.10	low			3.50 - 6.60	2.50 - 7.10	mg/dL
BUN (Blood Urea Nitrogen)	11.00	*			11.00 - 24.00	8.00 - 27.00	mg/dL
Creatinine	0.56	Low			0.70 - 0.87	0.57 - 1.00	mg/dL
GFR Est.	100.00	*			59.00 - 145.00	45.00 - 150.00	/min/1.73
BUN / Creatinine Ratio	20.00	*			14.00 - 23.00	11.00 - 26.00	ratio
Sodium	138.00	low			139.00 - 143.00	134.00 - 144.00	mmol/L
Potassium	4.30	*			3.80 - 4.50	3.50 - 5.20	mmol/L
Chloride	101.00	low			102.00 - 105.00	97.00 - 106.00	mmol/L
Magnesium	1.90	*			1.90 - 2.20	1.60 - 2.30	mg/dL
Calcium	8.30	Low			9.61 - 10.00	8.70 - 10.20	mg/dL
Phosphorus	3.00	low			3.40 - 4.00	2.50 - 4.50	mg/dL
Total Protein	5.90	Low			7.10 - 7.61	6.00 - 8.50	g/dL
Albumin	3.30	Low			4.10 - 4.50	3.50 - 5.50	g/dL
Globulin	2.60	low			2.80 - 3.51	1.50 - 4.50	g/dL
A/G Ratio	1.30	*			1.20 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	1.00	high			0.30 - 0.90	0.00 - 1.20	mg/dL
Alk. Phosphatase	123.00	High			64.74 - 91.26	39.00 - 117.00	IU/L
Creatine Kinase	60.00	*			32.00 - 116.00	24.00 - 173.00	U/L
LDH	267.00	Very High			154.31 - 190.70	119.00 - 226.00	IU/L
SGOT (AST)	151.00	Very High			10.00 - 26.00	0.00 - 40.00	IU/L
SGPT (ALT)	71.00	Very High			8.00 - 26.00	0.00 - 32.00	IU/L
GGT (r-GTP)	95.00	High			10.00 - 35.00	0.00 - 60.00	IU/L
Serum Iron	87.00	*			64.00 - 102.00	27.00 - 139.00	ug/dL
Ferritin	107.00	*			45.00 - 110.00	15.00 - 150.00	ng/mL
Total Cholesterol	127.00	low			150.00 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	75.00	*			50.00 - 150.00	0.00 - 200.00	mg/dL
HDL Cholesterol	44.00	low			50.00 - 150.00	40.00 - 200.00	mg/dL
VLDL Cholesterol	15.00	*			6.00 - 20.00	5.00 - 40.00	mg/dL
LDL Cholesterol	68.00	*			50.00 - 75.00	0.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	2.90	*			0.00 - 4.00	0.00 - 4.40	ratio
TSH	3.17	*			0.50 - 3.50	0.45 - 4.50	uIU/mL
T4 Thyroxine	10.70	high			7.10 - 9.00	4.50 - 12.00	ug/dL
T3 Uptake	22.00	Low			29.00 - 35.00	24.00 - 39.00	%
T7 (Free T4 Index) (FTI)	2.40	low			2.61 - 3.60	1.20 - 4.90	
CRP C-Reactive Protein	21.00	Very High			0.00 - 6.70	0.00 - 10.00	mg/L
White Blood Count	4.10	low			5.70 - 8.50	3.40 - 10.80	k/cumm
Red Blood Count	4.52	*			4.27 - 4.78	3.77 - 5.28	m/cumm
Hemoglobin	12.90	*			12.60 - 14.50	11.10 - 15.90	g/dL
Hematocrit	39.80	*			38.00 - 42.00	34.00 - 46.60	%
MCV	88.00	*			84.00 - 92.00	79.00 - 97.00	fL
MCH	28.50	low			28.60 - 31.00	26.60 - 33.00	pg
MCHC	32.40	low			33.20 - 34.50	31.50 - 35.70	g/dL
RDW	14.00	*			13.30 - 14.40	12.30 - 15.40	%
Platelets	114.00	Low			250.00 - 350.00	150.00 - 450.00	x10E3/uL
Polys/Neutrophils (SEGS-PMNS)	64.00	high			51.00 - 63.00	40.00 - 74.00	%
Lymphocytes	33.00	*			24.00 - 36.00	14.00 - 46.00	%
Monocytes	2.00	Low			5.00 - 7.00	4.00 - 13.00	%
Eosinophils	0.00	*			0.00 - 3.50	0.00 - 5.00	%
Basophils	1.00	*			0.00 - 2.00	0.00 - 3.00	%
Neutrophils/Polys (Absolute)	2.60	low			2.90 - 5.50	1.40 - 7.00	x10E/uL
Lymphs (Absolute)	1.40	*			1.20 - 2.60	0.70 - 3.10	x10E/uL
Monocytes (Absolute)	0.10	Low			0.30 - 0.65	0.10 - 0.90	x10E/uL

JW on 9/25/19 at 2:28 PM HELP !!
My first patient with SBN!! This patient is going seriously downhill fast. She has non-alcoholic fatty liver disease (cirrhosis). They just took 2 liters of fluid off her abdomen. Medically they aren't doing much but giving her more drugs. In addition to the TEN listed on her report she's also taking albuterol , dovonex, cholecalciferol, temovate, romosuzumab, lidex, furosemide, nizoral, omepazole, aldactone, valtrex, reclast (some of these are topicals). I think the Rx are killing her... literally. I don't think any one body can handle 21 different drugs. I put her on the SBN/Merkle supplements. After one day she got severe diarrhea and had to quit. She's nauseated and has no appetite. I have her drinking carrot/greens juices.
Questions: Are any of those drugs 'necessary' or helpful? I am considering taking her off most (she is the significant other of my nephew so I have a little bit more latitude with her than a regular patient).
Which of the SBN supplements would be most critical to support her liver and I'll try to introduce them gradually? Any other recommendations.

Van Merkle replied on 9/26/19 at 11:31 AM
heart to heart with the patient: she is not going to live long. I would only have her take the bp drug. Anxiety, depression, insomnia, drugs: she has more serious problems and these are bad. I'd also stop the metformin: very bad for gi, liver etc. not worried about diabetes, the cat 1 diet will fix that. In fact, I 'd have her do the Fresh Start Diet for 7-10 days. along with those vitamins only during that time.
I would bet that the drugs are shutting the liver down too and that this can be reversed if the patient is willing to try this for 2 weeks. can she tolerate being 'depressed and anxious' for 2 weeks?

JW replied on 12/4/19 at 12:39 PM
When you said "heart to heart with the patient: she is not going to live long" you knew what you were talking about. We only had a couple of days on the intensive you recommended and then had to put her in the hospital. She was in one of our best local hospitals for 3-4 weeks, out to a rehab hospital for one week and then in and out of the U of M hospital until she went in a couple of weeks ago for a liver transplant. She died on the operating table two hours into the surgery with a blood clot to the heart, apparently not an uncommon thing with liver transplants.
Thank you for your assistance and consulting on this case. I am just sorry we didn't get to her a year earlier.

Press On

- Nothing in this world can take the place of persistence.
  Talent will not: nothing is more common than unsuccessful people with talent. Genius will not: unrewarded genius is almost a proverb.
  Education will not: the world is full of educated derelicts.
  Persistence and determination alone are omnipotent. -Calvin Coolidge

Hepatitis Recommendations

- Strict diet: semi vegan, organic, low glycemic diet
- Treat the whole body
- Vitamins for the liver, dosage based on severity and chronicity:
  - Vitamin C
  - Beta Carotene
  - Liver glandular
  - Lauricidin
  - Specialty products: RM 10; Immuni T, etc

- **Thiamine (B1) in the Tx of Chronic Hepatitis B**
  - Thiamine may be antiviral.
  - May slow or reverse liver damage
  - Correlation exists between thiamine deficient populations and the prevalence of Chronic HBV.
  - During thiamine administration Aminotransferase levels dropped substantially.
  - When the thiamine was removed from the patients, Aminotransferase levels rose again.
  - Thiamine and lipoic acid are coenzymes for the decarboxylation of pyruvate and the oxidation of alpha keto-glutamic acid.
    - **The study was small but is there any harm in using Thiamine?**
    - *The American Journal of Gastroenterology* March 2001; 96:864-868

- **JH23964 Test 6-25-2004**
  - 22 year old weight lifter; diagnosed with Lupus and told to prepare for a liver or kidney transplant in 10 years. ANA was negative. Even on these drugs he felt no better.

Test Description Date:	Current Result 06/25/2004	Current Rating	Prior Result	Delta	Healthy	Clinical	Units
Glucose	91.00	Opt			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.50	hi			4.61 - 5.40	4.50 - 5.70	%
Uric Acid	8.50	HI			4.10 - 6.00	2.40 - 8.20	mg/dL
BUN (Blood Urea Nitrogen)	12.00	lo			13.10 - 18.00	5.00 - 26.00	mg/dL
Creatinine	1.00	hi			0.61 - 0.90	0.50 - 1.50	mg/dL
BUN / Creatinine Ratio	12.00	lo			13.10 - 20.00	8.00 - 27.00	ratio
Sodium	138.00	lo			140.10 - 144.00	135.00 - 148.00	meq/dL
Potassium	4.50	Opt			3.91 - 4.60	3.50 - 5.50	meq/dL
Chloride	98.00	lo			100.10 - 106.00	96.00 - 109.00	meq/dL
Magnesium	1.70	lo			2.21 - 2.51	1.60 - 2.60	mg/dL
Calcium	9.30	lo			9.71 - 10.10	8.50 - 10.60	mg/dL
Phosphorus	3.60	Opt			3.41 - 4.00	2.50 - 4.50	mg/dL
Calcium/Albumin Ratio	2.60	hi			2.10 - 2.50	2.03 - 2.71	ratio
Total Protein	6.60	lo			7.11 - 7.61	6.00 - 8.50	gm/dL
Albumin	3.60	lo			4.10 - 4.51	3.50 - 5.50	gm/dL
Globulin	3.00	Opt			2.81 - 3.51	1.50 - 4.50	gm/dL
A/G Ratio	1.20	lo			1.22 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.90	Opt			0.39 - 0.93	0.10 - 1.20	mg/dL
Alkaline Phosphatase 25-150	73.00	Opt			66.00 - 108.00	25.00 - 150.00	IU/L
Creatine Kinase	345.00	HI			64.00 - 133.00	24.00 - 173.00	u/l
LDH	189.00	hi			120.10 - 160.00	100.00 - 250.00	mu/mL
SGOT (AST)	30.00	hi			18.10 - 26.00	6.00 - 40.00	mu/mL
SGPT (ALT)	22.00	Opt			18.10 - 26.00	6.00 - 40.00	mu/mL
GGT	10.00	lo			10.10 - 36.00	6.00 - 65.00	mu/mL
Serum Iron	83.00	lo			85.10 - 120.00	35.00 - 155.00	mcg/dL
Ferritin	59.00	Opt			30.10 - 218.30	10.00 - 291.00	ng/mL
Cholesterol	197.00	hi			140.10 - 170.00	100.00 - 199.00	mg/dL
Triglyceride	162.00	hi			80.10 - 115.00	10.00 - 199.00	mg/dL
HDL Cholesterol	40.00	LO			55.10 - 120.00	40.00 - 150.00	mg/dL
VLDL Cholesterol	32.00	hi			5.10 - 20.10	4.10 - 40.10	mg/dL
LDL Cholesterol	125.00	HI			50.10 - 75.10	6.00 - 99.10	mg/dL
Total Cholesterol / HDL Ratio	4.90	hi			0.00 - 4.00	0.00 - 5.00	ratio
T4 Thyroxine	8.50	Opt			7.10 - 9.00	4.50 - 12.00	mcg/dL
T3 Uptake	34.00	Opt			29.10 - 35.10	24.00 - 39.00	%
T7 Free Thyroxine Index (FTI)	2.90	Opt			2.61 - 3.60	1.20 - 4.90	
White Blood Count	3.60	LO			5.10 - 8.00	4.00 - 10.50	k/cumm
Red Blood Count	4.15	lo			4.51 - 5.50	3.80 - 5.60	m/cumm
Hemoglobin	14.60	Opt			13.30 - 15.20	11.50 - 17.00	gm/dL
Hematocrit	42.60	Opt			39.51 - 47.00	34.00 - 50.00	%
MCV	103.00	HI			85.10 - 97.00	80.00 - 98.00	cu.m
MCH	35.10	HI			28.10 - 32.00	27.00 - 34.00	pg
MCHC	34.20	Opt			33.10 - 34.99	32.00 - 36.00	%
Platelets	232.00	Opt			175.10 - 250.00	140.00 - 415.00	k/cumm
Polys (SEGS-PMNS)	64.00	Opt			55.10 - 65.00	40.00 - 74.00	%
Lymphocytes	21.00	lo			25.10 - 40.00	14.00 - 46.00	%
Monocytes	12.00	hi			5.10 - 7.10	4.90 - 13.00	%
Eosinophils	2.00	Opt			0.00 - 4.10	0.00 - 7.00	%
Basophils	1.00	hi			0.00 - 0.00	0.00 - 3.00	%
ESR (Erythrocyte Sed Rate)	18.00	hi			0.00 - 8.00	0.00 - 30.00	mm/HR
CRP C-Reactive Protein	1.30	hi			0.00 - 0.00	0.00 - 4.90	mg/L

- **JH23694 Supplement List**
  - Betaine HCL 3
  - Bio-Dophilus 1
  - Calcium MCHC 3
  - Chlorella 3
  - Co-Q-Melt 3
  - EDTA 3
  - L-Carnitine 1
  - Magnesium 1
  - Marine Fish Oil 2
  - Pantothenic Acid 2
  - Seacure 3
  - Spectramin Chelate 2
  - Sublingual B12 Plus 4
  - Ultra Preventive III 2
  - Vitamin C 4
  - Lauricidin 6
  - Iron 1 every other day
- **Causes of Gallstones**
  - Too much hydrogenated fat
  - Too much absorption of water
  - Dehydration, trying to save the water
  - Inflammatory process
  - Frequent consumption of fatty foods
  - Fried foods
  - Smoked foods
  - Large meals
  - Decreased vegetable consumption
  - Increased sugar intake (soft drinks and sweets)
  - Low fiber diet
  - Gallbladder infections
  - An inherited tendency to form gallstones.
  - Pregnancy
  - Obesity
  - Conditions that cause increased red blood cell breakdown, which may be inherited or acquired. An example of such a condition is sickle cell anemia.
- **Symptoms of GB disease**
  - Abdominal pain
    - Severe
    - Located on the right upper quadrant or in the upper middle of the abdomen (epigastric)
    - May subside over 12 to 18 hours in uncomplicated cases
    - Recurrent with similar pain in past
    - Occurs within minutes following meals
    - During deep inspiration
    - Radiating to back or below the right shoulder blade (right scapular area)
    - Worsened after eating or drinking greasy (high fat) foods or fluids
  - Abdominal fullness, gaseous
  - Fever
  - Nausea
  - Vomiting
  - Jaundice, yellow color of the skin
  - Heartburn

- Chills and shaking
- Chest pain under the breastbone

- **Gallbladder**
  - Blood flow from the portal vein through the liver sinusoids: 1000 ml/minute
  - Total secretion of bile each day: 800-1000 ml
  - Maximum volume of the gallbladder: 40-70 ml
  - Bile normally concentrated: 5 fold to maximum of 12 fold
  - For the Gall Bladder to empty: Sphincter of Oddi must relax and the gall bladder must contract causing the bile to actually "Squirt out".
  - When fat is not in the meal, the gallbladder empties poorly.
    - Normally the gallbladder empties completely in about one hour.
      - Textbook of Medical Physiology 5th Edition

- **Bile**
  - Bile: bile salts, bilirubin, cholesterol, lecithin and electrolytes. Water and most of the electrolytes are reabsorbed.
  - Bile salts two important functions:
    - Emulsify/detergent function to break fat globules in to minute sizes.
    - Help in the absorption of fatty acids, monoglycerides, cholesterol and other lipids from the intestinal tract.
  - 94% of bile salts are reabsorbed by the intestinal mucosa in the distal ileum and re-circulated into the bile. Studies show as much as 18 times re-circulated.
  - Without proper bile salts, up to 40% of lipids are lost into the stools, and the person often develops a metabolic deficit due to this nutrient loss.
  - In the absence of bile salts, vitamins A, D, E and K are poorly absorbed.

- **Deficiency or supplementation of Vit K is associated with:**
  - Results in serious impairment of blood coagulation
  - Cancer
  - Celiac disease
  - Crohn's disease
  - Inflammation
  - Myopathy
  - Osteoporosis
  - Pain
  - Nausea and vomiting of pregnancy with Vit C deficiency
  - Rheumatoid arthritis

- **Deficiency or supplementation of Vitamin A is associated with:**

- Est. 1 million people develop Vit A deficiency each year
- 20% of pop. gets <70% of RDA
- Commonly inadequate in elderly
- Acne rosacea
- Acne vulgaris
- Dry Hair
- Fatigue
- Growth Impairment
- Insomnia
- Hyperkeratosis
- Infections
- Night blindness
- Weight Loss
- Xerophthalmia
- Xerosis
- Breast disease
- Cancer
- Cataracts
- Cervical dysplasia
- Infections
- Peptic ulcers
- Psoriasis
- AIDS
- Sickle cell Anemia
- Candidiasis
- Celiac disease
- Crohn's disease
- Diabetes mellitus
- Eczema
- Glaucoma
- Gout
- Hepatitis
- Hypertension
- Lupus
- Kidney stones
- Immunodepression infect.
- Inner ear dysfunction
- Macular degeneration
- Menorrhagia
- Muscle cramps
- Myopathy
- Periodontal disease
- Peripheral vascular disease
- PMS
- Psoriasis
- Ulcerative colitis
- Ulcers
- Skin ulcers
- Wound healing
- Sexual dysfunction
- Liver dysfunction
- Diminished taste
- Diminished olfactory sense

- **Deficiency or supplementation of Vit D is associated with:**
  - Atherosclerosis
  - Bronchial asthma
  - Cancer
  - Capillary fragility
  - Cardiac arrhythmias
  - Cataract
  - Epilepsy
  - Hypertension immunodepression
  - Heart disease
  - Inner ear dysfunction
  - Multiple sclerosis
  - Muscle cramps
  - Osteoporosis
  - Periodontal disease
  - Psoriasis
  - Ulcerative colitis

- **Deficiency or supplementation of Vit E is associated with**

Acne
Acne vulgaris
Allergy
Anemia
Atherosclerosis
Auto-immune disorders
Benign breast disease
Capillary fragility
Cardiac arrhythmias
Cardiomyopathy
Cervical dysplasia
Dysmenorrhea
Eczema Edema
Epilepsy Hepatitis
Gall bladder disease
Herpes simplex
Herpes zoster
Hyperestrogenism
Immunodepression
Fibro cystic breast dis.
PMS
Lupus
Macular degeneration
Multiple sclerosis
Myopathy
Neuralgia
Neuropathy
Neuromuscular deg.
Pain
Periodontal disease
Peripheral vascular dis.
Pregnancy related illness
Raynaud's syndrome
Restless legs
Rheumatism
Scleroderma
Seborrheic dermatitis
Ulcerative colitis
Ulcers (skin)
Vasculitis
Ulcers(duodenal & gastric)
Wound healing
Breast disease
Cancer
Cataracts
Diabetes
Epilepsy
Gallstones
Heart disease
Herpes simplex
Infection
Inflammatory bowel disease
Inner ear dysfunction
Menopausal symptoms
Menstrual cramps
Muscle cramps
Osteoarthritis
Parkinson's disease
Peptic ulcers
Premenstrual tension

- **Over 600,000 people in the US had their gall bladders removed last year.**
  - The operations and hospitalization cost more than $5 billion a year, and the problem is the most common and costly digestive disease requiring hospitalization, according to the National Institutes of Health.
- **Gallstones**
  - Gallstone disease effects 10-20% of the population in the United States
  - Gall bladder disease is a common ailment affecting an estimated 20 million Americans. Most gallstones seen in the United States are composed of cholesterol or cholesterol mixtures.
  - Although gallstones are common, only 30% of patients ever develop symptoms
- **Gallbladders and Fats**
  - Fats liquid at room temperature resulted in a significantly greater contraction of the gallbladder than solid fats. Almost 50% greater contraction.
    - *Nutritio Dieta* 2:219-22,1960
  - The incidence of gallstones may be higher when fats come from polyunsaturates and transfatty acids than from saturated fats and cholesterol.
    - *N Engl J Med* 288 (1):24-27, 1973
- **Vitamin deficiencies associated with gallstones:**
  - Vitamin C, Vitamin E, Choline, Taurine
  - Several studies show a correlation of gallbladder dysfunction and gastric hypo secretion.
  - Nearly all of my patients with gall bladder problems take Betaine HCL.
- **Gallbladder Recommendations**
  - **HEAT**
  - **BETAINE HCL**
  - **ADJUSTMENTS**
  - BLOOD TESTING

- Vegetarians have half the risk of forming gallstones compared with meat eaters. Vegetarians often eat fewer calories and less cholesterol. They also tend to weigh less than meat eaters which may reduce their risk.
- Constipation has been linked to gallstones. When constipation is successfully resolved, it appears to reduce the risk of gallstone formation.

- **Providing Hope...**
  - Patient with non small cell lung carcinoma (Pretty rare)... No hope.
  - He had started our program and is feeling better. He is not coughing and spitting up and has more energy.
  - **Eight months on His Program the scans showed no sign of cancer.** His Oncologist said this is impossible, his MD said it is miraculous.
  - …He died 6 months later.
- **Praying for Miracles**
  - It is OK to Pray for Miracles
  - But sometimes God provides opportunities…and you have to do your part
  - The Miracle is already inside of you
  - Maybe another miracle brought you here…
- **Cholesterol**
  - Precursor of the bile acids and the sex hormones
  - Cell membranes
  - Used in seminal fluid and vaginal lubrication
  - Essential part of nerve-fiber structure
  - Manufactured primarily in the liver (all tissues of the body except the brain can make it), cholesterol is present in almost all cells and is particularly high in the liver, brain and nervous tissue, and the blood.
  - Transported by lipoproteins.
- **Mevacor**
  - **Testosterone response to HCG was slightly but not significantly** reduced after treatment with lovastatin 40 mg daily for 16 weeks in 21 men. The effects of HMG-CoA reductase inhibitors on male fertility have not been studied in adequate numbers of male patients. The effects, if any, on the pituitary-gonadal axis in premenopausal women are unknown. optic nerve degeneration in dogs treated for 14 weeks...
  - CNS vascular lesions, characterized by perivascular hemorrhage and edema, necrosis of small vessels, were seen in dogs
  - Similar optic nerve and CNS vascular lesions have been observed with other drugs of this class.
  - Cataracts were seen in dogs treated for 11 and 28 weeks at 180 mg/kg/day and 1 year at 60 mg/kg/day.
  - *Carcinogenesis, Mutagenesis, Impairment of Fertility*
  - In a 24-month carcinogenicity study in rats, there was a positive dose response relationship for hepatocellular carcinogenicity in males at drug exposures between 2-7 times that of human exposure at 80 mg/day (doses in rats were 5, 30 and 180 mg/kg/day).
  - An increased incidence of **thyroid neoplasms** in rats appears to be a response that has been seen with other HMG-CoA reductase inhibitors.
  - A chemically similar drug in this class was administered to mice for 72 weeks at 25, 100, and 400 mg/kg body weight, which resulted in mean serum drug levels approximately 3, 15, and 33 times higher than the mean human serum drug concentration (as total inhibitory activity) after a 40 mg oral dose**. Liver carcinomas** were significantly increased in high dose females and mid- and high dose males, with a maximum incidence of 90 percent in males. The incidence of **adenomas of the liver** was significantly increased in mid- and high dose females. Drug treatment also significantly increased the incidence of **lung adenomas** in mid- and high dose males and females. Adenomas of the Harderian gland (a gland of the eye of rodents) were significantly higher in high dose mice than in controls.
  - ***Hypersensitivity Reactions:*** An apparent hypersensitivity syndrome has been reported rarely which has included one or more of the following features: anaphylaxis, angioedema, lupus erythematous-like syndrome, polymyalgia rheumatica, vasculitis, purpura, thrombocytopenia, leukopenia, hemolytic anemia, positive ANA, ESR increase, eosinophilia, arthritis, arthralgia, urticaria, asthenia, photosensitivity, fever, chills, flushing, malaise, dyspnea, toxic epidermal necrolysis, erythema multiforme, including Stevens-Johnson syndrome.
  - ***Gastrointestinal:*** pancreatitis, hepatitis, including chronic active hepatitis, cholestatic jaundice, fatty change in liver; and rarely, cirrhosis, fulminant hepatic necrosis, and hepatoma; anorexia, vomiting.

- ***Skin:*** alopecia, pruritus. A variety of skin changes (e.g., nodules, discoloration, dryness of skin/mucous membranes, changes to hair/nails) have been reported.
- ***Reproductive:*** **gynecomastia,** loss of libido, **erectile dysfunction**.
- ***Eye:*** **progression of cataracts** (lens opacities), ophthalmoplegia.
- ***Laboratory Abnormalities:*** elevated transaminases, alkaline phosphatase, (gamma)-glutamyl transpeptidase, and bilirubin; thyroid function abnormalities.

- **Lipitor: side effects**
  - Lipitor (lipid or cholesterol lowering drug) causes liver dysfunction; **SGOT and SGPT three times the upper limit of normal; CPK values greater than 10 times the normal limit.** Adrenal failure, diffused muscle pain; muscle tenderness; weakness; malaise; fever; myopathy or muscle disease if used with certain other drugs (these drugs include: antacid (maylox), dioxin, erythromycin, and oral contraceptives).
  - Long term use in laboratory studies of two years indicated an increase in liver cancer. Should not be used in pregnant women. Other adverse reactions include: edema (part or whole of the body), digestive problems, gastritis, colitis, vomiting, ulcers, bleeding gums, bleeding ulcers, hepatitis, pancreatitis, gall bladder disease, asthma, decreased libido, leg cramps, vercitis, monocytis, itching, alopecia, dry skin, acne, cystitis, hemoturia, kidney stone, breast tenderness, various hemorrhage, loss of taste, palpitations, migraines, arrhythmia, gout
  - Nutrients Depleted: Co-Enzyme Q-10
- **Pravochol: side effects**
  - Pravochol: (for high cholesterol) Warnings: chest pain; rash; nausea and vomiting;
  - diarrhea; abdominal pain; constipation; flatulence; heartburn; fatigue; localized pain; myalgia; headaches; dizziness; urinary abnormality; rhinitis; cough; memory loss; insomnia; depression; anxiety; arthralgia; flushing; pancreatitis; hepatitis; cirrhosis; anorexia; alopecia; loss of libido; erectile dysfunction; progression of cataracts
  - Nutrients Depleted: Coenzyme Q10

Are 'Vaccine Skeptics' Responsible for Flu Deaths?
Some experts say anti-vaccine lobby took over messaging about flu vaccine by Molly Walker, Staff Writer, MedPage Today February 17, 2018

For months, speculation swirled around this year's flu season, and the apparent lack of efficacy of the vaccine in Australia earlier in the year, but did all that skepticism contribute to flu deaths in the U.S.?

The CDC's most recent flu data indicates that an additional 22 children died from influenza-related causes, and the portion of pneumonia and influenza-associated mortality hovers near 10%, far above the epidemic threshold for this particular week. Recently released flu vaccine efficacy data indicated that only a little over a quarter of pediatric deaths were in vaccinated children.

In commenting on this data, Peter Hotez, MD, PhD, dean of the National School of Tropical Medicine at Baylor College of Medicine in Houston, told MedPage Today that in general, the public health community was not sufficiently visible in the media about the importance of getting vaccinated, and thus allowed anti-vaccine activists to take over the messaging.

"The public health community did not adequately articulate how the current flu vaccine could still save your life," Hotez said. "This current flu epidemic may turn out to be the first major example of how the antivaccine lobby in America was effective in dissuading people not to get vaccinated, and may be responsible for hundreds or more American deaths."

Peter Palese, PhD, chair of the Department of Microbiology at Icahn School of Medicine at Mount Sinai in New York City, was unequivocal in his response: "I fully agree with the statement that the antivaxxers are responsible for the needless deaths of many [unvaccinated] people," he said.

Public health messaging has improved over the years, noted Stephen Morse, PhD, director of the Infectious Disease Epidemiology Certificate Program of Columbia University Mailman School of Public Health in New York City, but is still often ineffectual, because "strong communications are needed to counter" the "overwhelming appeal to emotion" of anti-vaccine advocates, while "still being honest and accurate."

"For flu, even 20% protection can prevent many cases and save many lives directly and indirectly," Morse explained. "The dangers of flu and other diseases we try to prevent by vaccines pale by comparison with the risk portrayals by vaccine opponents, but those disease risks and prevention benefits are real and often very meaningful. We often haven't conveyed that well."

But not all experts were in agreement. Robert Field, PhD, MPH, JD, professor of health management and policy at Drexel University in Philadelphia, said that the public health community "is only as strong as the tools it has available.

"This year's epidemic should serve as a reminder of the importance of public health," he said. "The epidemic might have been even worse if the vaccine had not been available. And vaccines remain our most effective tool in fighting future outbreaks."

John Sinnott, MD, chair of the Department of Internal Medicine at the Morsani School of Medicine at the University of South Florida in Tampa, said that he did not think that the anti-vaccine lobby did this, or if they did, "it was not very noticeable -- I would think they would use the information next year."

Morse suggested that perhaps there is much that the public health community might learn from the approach of anti-tobacco organizations, such as the Truth Initiative, when talking about the dangers of not getting vaccinated: "We act as if the value of a vaccine, and the dangers of the disease, are generally understood, but they need to be shown clearly and perhaps even dramatically."

02.17.2018
— Dr CC
I support appropriate vaccination, but I feel it is irresponsible to label patients exercising their decision for informed consent as being responsible for deaths. Clearly, we as a medical profession, have done a poor job of educating the public and gaining their trust and trying to badger them into compliance only increases the distrust they have in medicine. I have to say I even had to rethink my support of the flu vaccine when I learned that the efficacy numbers used were misleading to the public. Most assume that "20% efficacy" means 1 in 5 people would be protected from the flu - as do many of my fellow physicians. It took a colleague of mine to point out that it is a 'relative' risk reduction, which means you actual are only reducing the typical estimated 4% risk a person has each year, down to 3.2%. In other words out of 100 vaccinated people, 1 person (0.8%) would be protected from the flu if all 100 were vaccinated.

What is more disheartening, and something patients are becoming increasingly aware of, is the fact that the 'flu deaths' reported are actually "flu-associated" illnesses which includes pneumonia of all causes
Van: this doctor laments that fact that the public is becoming aware that many 'flu deaths' are not really deaths caused by the flu, no wonder people are becoming for skeptical especially when the facts do come out.

Are 'Vaccine Skeptics' Responsible for Flu Deaths? by Molly Walker, Staff Writer, MedPage Today February 17, 2018

Do statins work?

- On Jan. 14, 2008 when Merck and Schering-Plough (SGP) revealed results of a trial in which one popular cholesterol-lowering drug, a statin, was fortified by another, Zetia, which operates by a different mechanism. The combination did succeed in forcing down patients' cholesterol further than with just the statin alone. But even with two years of treatment, the further reductions brought no health benefit.
- In Pfizer's own Lipitor newspaper ad. the dramatic 36% figure has an asterisk. Read the smaller type. It says: "That means in a large clinical study, 3% of patients taking a sugar pill or placebo had a heart attack compared to 2% of patients taking Lipitor."
- DOING THE MATH
- The numbers in that sentence mean that for every 100 people in the trial, which lasted 3 ½ years, three people on placebos and two people on Lipitor had heart attacks.
- ***Now do some simple math
- The difference credited to the drug? One fewer heart attack per 100 people. So to spare one person a heart attack, 100 people had to take Lipitor for more than three years. The other 99 got no measurable benefit. Or to put it in terms of a little-known but useful statistic, the number needed to treat (or NNT) for one person to benefit is 100.

Statins Shown to Extend Life by Mere Days
Analysis by Dr. Joseph Mercola Fact Checked September 11, 2019
A 2015 systematic review of statin trials found that in primary prevention trials, the median postponement of death was just 3.2 days. In secondary prevention trials, death was postponed 4.1 days
Tactics used in statin studies to exaggerate benefits include excluding unsuccessful trials, cherry-picking data, ignoring the most important outcome — an increase in life expectancy — and using a statistical tool called relative risk reduction to amplify trivial effects
If you look at absolute risk, statin drugs benefit just 1% of the treated participants. Out of 100 people treated with statins for five years, one person will have one less heart attack
Statin trials minimize health risks by using a run-in period. Participants are given the drug for a few weeks, after which those who suffer adverse effects are simply excluded, thereby lowering the perceived frequency and severity of side effects

- **Liver Worksheet 1**

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Alk Phos	32 - low	10 - LOW				
SGOT	14 - low		14 - low			
SGPT	12 - low		33 - high			
GGT						

	Conditions	Considerations
Test 1	Low Liver Function **Nutrients:** Zinc, B-Complex, Vitamin C, Magnesium	Poor Diet, Malnutrition, Drug
Test 2	Possible Osteolytic Sarcoma **Nutrients:** Zinc, Vit C, Magnesium, Potassium	Nutrient Deficiency, Drugs
Test 3	Liver Dysfunction **Nutrients:** B-Complex, Vit C, Milk Thistle Extract	Drugs

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Alk Phos	32 - low	10 - LOW				
SGOT	14 - low		14 - low		4 - LOW	11 - low
SGPT	12 - low		33 - high		6 - LOW	16 - low
GGT				40 - LOW		9 - low

	Conditions	Considerations
Test 4	Severe Pancreatitis – Possible End Stage **Nutrients:** Pancreatic Glandular, B-Complex, Lauricidin	Drugs, Cancer
Test 5	Severe Liver Disorder **Nutrients:** Liver, Glandular, Milk Thistle, B6, Choline, Inositol	Cirrhosis, Possible End Stage, Drugs
Test 6	Low Liver Function **Nutrients:** B-Complex, Milk Thistle	Diet, Drugs

- **Liver Worksheet 2**

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Alk Phos						
SGOT	31 - high					
SGPT						
GGT						

	Conditions	Considerations
Test 1	Inflamed Liver **Nutrients:** Lauricidin	Drugs – Even Aspirin, Food Poisoning
Test 2		
Test 3		
Test 4		

	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
Alk Phos			97-high	90-high		
SGOT	31-high	33-high	37-high			
SGPT		31-high	37-high	33-high		
GGT			41-high			

	Conditions	Considerations
Test 1	Inflamed Liver **Nutrients:** Lauricidin	Drugs – Even Aspirin, Food Poisoning
Test 2	Inflamed Liver **Nutrients:** Lauricidin, Liver Glandular	Drugs, Food Poisoning, Infection
Test 3	Inflamed Liver / Possible Smoldering Hepatitis **Nutrients:** Lauricidin, Milk Thistle, Vitamin C	Drug, Gall Bladder, Digestion, Infection
Test 4	Inflamed Liver w/ Possible Arthritis **Nutrients:** Glucosamine / MSM, Lauricidin, Vitamin C	Drugs

	Test 7	Test 8	Test 9	Test 10	Test 11	Test 12
Alk Phos						
SGOT		75-HIGH				
SGPT		60-HIGH				
GGT	60-high					

Test 5	Liver / Pancreatic Inflammation **Nutrients:** Lauricidin, Vitamin C	Drugs, Glucose, Hgb A1c, Gall Bladder, Digestion, Alcohol
Test 6	Inflamed Liver **Nutrients:** Vitamin C, Milk Thistle	Drugs – Especially Cholesterol Lowering Drugs
Test 7	Pancreas **Nutrients:** Vitamin C, Milk Thistle, Lauricidin	Drugs, Alcohol, Glucose
Test 8	Serious Liver Disease **Nutrients:** Lauricidin, Vitamin C, Liver, Methionine, Beta Carotene, Choline, Inositol	Drugs, Check Everything: UA, Stool, Metabolic UA, EKG

XXX	Test 7	Test 8	Test 9	Test 10	Test 11	Test 12
Alk Phos					190-HIGH	
SGOT		75-HIGH	230-HIGH	37-high		110-HIGH
SGPT		60-HIGH	250-HIGH	37-high		120-HIGH
GGT	60-high			300-HIGH	150-HIGH	200-HIGH

Test 9	Hepatitis **Nutrients:** Lauricidin, Vitamin C, Liver, Methionine, Beta Carotene, Choline, Inositol	Drugs – Multiple Drugs, Recent Hepatitis Exposure
Test 10	Pancreatitis **Nutrients:** Liver, Vitamin C, Beta Carotene	Drugs, Alcohol, UA, Glucose, Hgb A1c
Test 11	Bone Lesion, Arthritis, Liver Disease **Nutrients:** Vitamin C, Lauricidin, Glucosamine/MSM	Drugs, UA, LDH, ESR, CRP, Glucose, Hgb A1c, Alcohol
Test 12	Inflamed Liver **Nutrients:** Liver, Vitamin C, Lauricidin	Drugs, Alcohol, UA, Glucose, Hgb A1c, Kidney

XXX	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8	Test 9	Test 10	Test 11	Test 12
Alk Phos			97-high	90-high							190-HIGH	
SGOT	31 - high	33-high	37-high					75-HIGH	230-HIGH	37-high		110-HIGH
SGPT		31-high	33-high	38-high	31-high	37-high		60-HIGH	250-HIGH	40-high		120-HIGH
GGT			41-high		44-high		60-high			300-HIGH	150-HIGH	200-HIGH

	Conditions	Considerations
Test 1	Inflamed Liver Nutrients: Lauricidin	Drugs - Even Aspirin, Food Poisoning
Test 2	Inflamed Liver Nutrients: Lauricidin, Liver Glandular	Drugs, Food Poisoning, Infection
Test 3	Inflamed Liver / Possible Smoldering Hepatitis Nutrients: Lauricidin, Milk Thistle, Vitamin C	Drugs, Gall Bladder, Digestion, Infection
Test 4	Inflamed Liver w/ Possible Arthritis Nutrients: Glucosamine / MSM, Lauricidin, Vitamin C	Drugs
Test 5	Liver / Pancreatic Inflammation Nutrients: Lauricidin, Vitamin C	Drugs, Glucose, Hgb A1c, Gall Bladder, Digestion, Alcohol
Test 6	Inflamed Liver Nutrients: Vitamin C, Milk Thistle	Drugs - Especially Cholesterol Lowering Drugs
Test 7	Pancreas Nutrient: Vitamin C, Milk Thistle, Lauricidin	Drugs, Alcohol, Glucose
Test 8	Serious Liver Disease Nutrients: Lauricidin, Vitamin C, Liver, Methionin, Beta Carotene, Choline, Inositol	Drugs Check Everything: UA, Stool, Metabolic UA, EKG
Test 9	Hepatitis Nutrients: Lauricidin, Vitamin C, Liver, Methionin, Beta Carotene, Choline, Inositol	Drugs - Multiple Drugs, Recent Hepatitis Exposure
Test 10	Pancreatitis Nutrients: Liver, Vitamin C, Beta Carotene	Drugs, Alcohol, UA, Glucose, Hgb A1c
Test 11	Bone Lesion, Arthritis, Liver Disease Nutrients: Vitamin C, Lauricidin, Glucosamine / MSM	Drugs, UA, LDH, ESR, CRP, Glucose, Hgb A1c
Test 12	Inflamed Liver Nutrients: Liver, Vitamin C, Lauricidin	Drugs, Alcohol, UA, Glucose, Hgb A1c, Kidney

- **It takes time: more or less**
  - 59y/o male 5'9", 240 pounds
  - Symptoms: CFS, IBS, panic attacks, high BP, high pulse, decreasing memory and concentration, slow stream, cystitis, testicular pain, bloating, high cholesterol, abdominal pains, bloating, peptic ulcer, nausea, dry skin and rash (cellulitis) on legs, headaches, joint stiffness.
  - These problems had been progressing over the last 25 years and were very significant the last 10 years.
  - Medications:
    - Capozide (for high BP) for 25 years
    - Prevacid (for Barrett's: precancerous esophagus) for 10 years
    - Cardura (for high BP) for 7 years
    - Zocor (for high Cholesterol) for 10 years
    - Levbid (for IBS) for 5 years
    - Had been on Prilosec/Prevacid/Zantac or similar for +20 years

- Name: ST20032 Gender: Male Age:57 Weight:238 Blood Type: B Test # 1

Test Description	Current Result	Current Rating	Homeostatic		Clinical	units
Date	3/2/2000					
Glucose	112	HI	85.00 - 100.00		65.00 - 110.00	mg/dl
Phosphorus	2.3	LO	3.40 - 4.00		2.40 - 4.60	mg/dl
Calcium	5.75	LO	7.90 - 10.10		7.00 - 10.11	
Calcium-Phosphorus Index	13.23	LO	30.00 - 40.00		20.00 - 40.20	ratio
Alkaline Phosphorus	166	HI	60.00 - 80.00		41.00 - 138.00	mu/ml
GGT	106	HI	1.00 - 36.00		0 - 65.00	mu/ml
Ferritin	448	HI	12.50 - 218.30		10.00 - 291.00	mg/ml
Cholesterol	210	HI	150.00 - 180.00		140.00 - 200.00	mg/dl
Triglycerides	224	HI	80.00 - 115.00		10.00 - 195.00	mg/dl
VLDL	44	HI	5.00 - 20.00		5.00 - 40.00	mg/dl
T3	31	LO	36.00 - 40.00		32.00 - 43.00	%
Red Blood Count	5.65	HI	4.50 - 5.50		4.50 - 5.50	m/cumm
Hemoglobin	16.5	HI	14.00 - 15.00		12.00 - 16.00	gm/dl
Hematocrit	48.1	HI	40.00 - 47.00		37.00 - 47.00	%

- **ST20032 Vitamin Program**

Personal Vitamin and Supplement Program For:

2 Month Supply

Case: ST March 2000 Page 1

	Vitamin or Supplement	Dosage Per Day	AM	NOON	PM	BED	Bottles	Quantity		Price	Extended Price
1	Beta Carotene (A-Caro)	50000 I.U.	1		1		1	250	@	$16.50	$16.50
2	Vitamin C (Ascocid 1000)	3000 mg.	1	1	1		1	250	@	$21.75	$21.75
3	Chlorella	670 mg.	1		1		1	180	@	$25.00	$25.00
4	Chromium Picolinate w/ boron	800 mcg.	2		2		2	180	@	$12.60	$25.20
5	Co-Q-10	200 mg.	2		2		4	60	@	$26.25	$105.00
6	Vitamin D (D-Natural 5)	5000 I.U.	1				1	250	@	$11.25	$11.25
7	Energenics	4	2		2		1	270	@	$28.45	$28.45
8	Glucosamine Sulfate	2250 mg.	1	1	1		1	120	@	$45.00	$45.00
9	Glucosamine Sulfate						1	60	@	$22.50	$22.50
10	Hepatagen	3	1	1	1		2	90	@	$10.45	$20.90
11	Arginine	1000 mg.	1		1		2	60	@	$8.60	$17.20
12	Magnesium Glycinate	400 mg.	2		2		1	240	@	$25.50	$25.50
13	Calcium (MCHC)	750 mg.	1	1	1		2	120	@	$13.50	$27.00
14	EPA/DHA (MLK 1000)	2000 mg.				2	2	100	@	$10.50	$21.00
15	B6 (Neuro-K-500)	1000 mg.	1		1		2	100	@	$16.50	$33.00
16	Pantothenic Acid	500 mg.	1		1		2	100	@	$9.75	$19.50
17	Potassium	99 mg.	1				1	100	@	$4.10	$4.10

Supplements Must Be Paid In Full Upon Receipt
Take All Supplements With Meals Unless Otherwise Noted

Thursday, March 16, 2000

Page 1 of 2

- Name: ST20032 Gender: Male Age:57 Weight:238 Blood Type: B Test # 2

Test Description	Current Result	Current Rating	Prior Result	Delta	Homeostatic		Clinical	units
Date	5/15/2000		3/2/2000					
Glucose	106	hi	112	☺	85.00 - 100.00		65.00 - 110.00	mg/dl
Phosphorus	3.1	lo	2.3	☺	3.40 - 4.00		2.40 - 4.60	mg/dl
Calcium	7.75	lo	5.75	☺	7.90 - 10.10		7.00 - 10.11	
Calcium-Phosphorus Index	24.03	lo	13.23	☺	30.00 - 40.00		20.00 - 40.20	ratio
Alkaline Phosphorus	132	hi	166	☺	60.00 - 80.00		41.00 - 138.00	mu/ml
GGT	72	HI	106	☺	1.00 - 36.00		0 - 65.00	mu/ml
Ferritin	218	Opt	448	☺	12.50 - 218.30		10.00 - 291.00	mg/ml
Cholesterol	119	LO	210	☹	150.00 - 180.00		140.00 - 200.00	mg/dl
Triglycerides	102	Opt	224	☺	80.00 - 115.00		10.00 - 195.00	mg/dl
VLDL	20	Opt	44	☺	5.00 - 20.00		5.00 - 40.00	mg/dl
T3	34	lo	31	☺	36.00 - 40.00		32.00 - 43.00	%
Red Blood Count	5.04	Opt	5.65	☺	4.50 - 5.50		4.50 - 5.50	m/cumm
Hemoglobin	14.8	Opt	16.5	☺	14.00 - 15.00		12.00 - 16.00	gm/dl
Hematocrit	42.9	Opt	48.1	☺	40.00 - 47.00		37.00 - 47.00	%

- **It takes time cont.**
  - First analysis on 3-02-2000
  - Most recent 10-25-2001
  - 6 SBN Panel blood tests
  - 2 hair analysis
  - 5 UA's
  - 1 ECG
  - 1 Alcat
  - Over $3,500.00 in supplements
  - 45 chiropractic treatments and therapy
  - Was it worth it? Was it a good value?
- **It takes time: current status**
  - 11-25-2001 "Overall I feel 95% better. My digestion and overall health is great!! It took a long time but it was worth every penny."
  - He told me that for 3 years from 1960-1963 he worked at a boiling degreasing tank with tetrachlorethane.
    - Tetrachlorethane is no longer used in industry due to its high carcinogenicity.
  - This tetrachlorethane, I believe contributed or caused his problems. It more than likely affected his blood work (CBC, liver, Monocytes, kidney/bladder), prolonged his recovery and will probably continue to be a factor.
  - He has avoided or at least delayed some very serious problems associated with this poison.
- **6-24-2010 email from a DO to an SBN Member DC after using "cleanse/flush" on 3 patients that ended up in ER within 1 month.**
  - "The colon cleansing is something disproved by many scientific studies and only supported by unfounded testimonials and outright 'scare tactics' on patients. The colon was designed by God to handle the body's waste products and help eliminate them from the body as well as maintain proper water balance. It does a wonderful job and does not need to be 'washed out or cleansed to rid the body of spackle or toxic wastes.""

21 DAY DETOX

- If you're recommending "detox programs" and multiple herbals...you'd better be testing to monitor what you're doing is SAFE AND EFFECTIVE!
- From a fellow doctor:
  - We were doing great with this patient until she decided to do the 21day detox with (name of supplement company removed...NOTE: this is a VERY popular supplement company).
  - After that the test results after the detox were not the best. She decided to continue with the acupuncturist rep of (supplement company) to do muscle testing for the past 2 months and see if they can help her. **Her new liver results are 5 times worse.** She has now have come back to fully work with me.

	Current Rating 05/03/2017		Prior 02/06/2017	
SGOT (AST)	173.00	Very High	24.00	⊗
SGPT (ALT)	91.00	Very High	31.00	⊗
TSH	10.26	Very High	9.26	⊗
T4 Thyroxine	11.60	high	10.10	⊗

Section 4: Hemochromatosis

Begin It Now

“Until one is committed, there is hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative (and creation), there is one elementary truth the ignorance of which kills countless ideas and splendid plans: that the moment one definitely commits oneself, then Providence moves too. All sorts of things occur to help one that would never otherwise have occurred. A whole stream of events issues from the decision raising in one's favor all manner of unforeseen incidents and meetings and material assistance, which no man could have dreamed would have come his way. Whatever you can do or dream you can do, begin it.”
Boldness has genius, power, and magic in it. Begin it now.
William Hutchison Murray

- **Warning signs and observations**
  - Frequently sick
  - Bruises easily
  - Heals slowly
  - Ulcers that heal slowly
  - Chronic skin problems (rashes, psoriasis, boils, change in mole
  - Fingernails and toenails
  - Osteoarthritis and Redness of the fingers but not the hand
  - Fissures/cracks of heels and finger tips/hands
  - Edema in the ankles and sore feet
  - Discoloration/darker color of the skin of the feet and ankles
  - Weak or absent pulses
  - Tremors
  - Dizziness
  - Decreased memory/concentration
  - Frequent changes in vision, floaters, eye problems, glaucoma, macular degeneration
  - High BP
  - High Pulse
  - Low Oxygen
  - Low bone density
  - Unusual chronic fatigue
  - Digestive aids – especially chronic usage
  - Constipation
  - Diarrhea
  - Stool that floats
  - Gas/bloating
    - Little boy with extremely foul gas
    - Senior drug toxicity, overdose, low or slow clearance, drug induced conditions (Alzheimers)
  - Bad breath/Coated tongue/ Cracked lips
  - Blood out of any orifice that it isn't supposed to be in
  - Long term drug use/frequent short term drug use
  - Skin, hair, eyes
  - posture
  - A doctor must not dismiss or minimize "Warning Signs" these should lead to a nutritional consultation and you will…save a life sometimes.
  - "Warning Signs" are tools to create:
    - awareness about their present state of health
    - doubt in the patients mind about their true health
    - the potential critical or serious situation
    - a desire to find out what is really happening
    - establish you, the doctor, as the expert: caring, thorough and knowledgeable
- **Getting Started: Marketing Tips**
  - Do Urinalysis day
  - Do a vitals day, BP/Pulse
  - Do file updates
  - Put up 'Warning Signs' and 'Pulse' pictures in office
  - GO FISHING
- **The best investment – SBN ROI**
  - 2 pt per month for 12 months= $12,000 /year +600%roi
    - Net $500.00/patient which includes vitamin sales at 20% profit
  - Vitamin sales, getting started:
    - Sell $500.00/month with 20% profit of $100…ROI 20%/month
    - 240% ROI of $1,200.00 if you sell $500.00/month for 12 months at 20% profit

- **Long term growth**
  - At one New Patient Per Week and 30% Retention
    These are very conservative estimates.
  - 1 pt per week for 1 year (50 pts) at $500.00 per patient net =$25,000.00
  - 1st year $25,000 X 30% = $7500
  - 2nd year $32,500 + $25,000.00 + $7500
  - 3rd year $40,000 (25K + 7500 + 7500)
  - 4th year $47,500
  - 5th year $55,000
  - 6th year $62,500
  - 7th year $70,000
  - ***NOTE: This does not take into consideration retesting, additional vitamin sales, consultations etc.***
- **Identifying Hemochromatosis**
  - Standard Blood Tests
    - High Ferritin
    - Low or slight low transferrin
    - High serum iron
  - Liver biopsy is the "Gold Standard"
  - Genetic testing is also available for a price.
  - Ferritin
    - Correlates with total body iron stores
    - Decreases before anemia occurs
    - May contain only a small amount of iron or a relatively large amount
      - Guyton: Textbook of Medical Physiology 5th edition
- **Ferritin**
  - **DECREASED in:**
  - Iron deficiency
  - **Exhausted iron stores with ferritin < 12ng/mL**
  - **INCREASED in:**
  - Iron overload
  - Hemochromatosis
  - Acute and chronic liver diseases
  - Alcoholism (declines during abstinence)
  - Malignancies: note: poor prognosis with increased ferritin.
  - Leukemia
  - Hodgkin's disease
  - Renal cell carcinoma
  - Infection
  - **Increased in:**
  - Malignant lymphoma
  - Hepatocellular carcinoma
  - Prostate Cancer
  - Inflammation
  - Rheumatoid arthritis
  - Hyperthyroidism
  - Acute myocardial infarction
  - Anemias not due to iron deficiency
  - Megaloblastic, Hemolytic,Thalassemia
  - Recommendations for increased Ferritin:
  - Silymarin/Milk Thistle
  - Phlebotomy

- **Clinical Synopsis of Hemochromatosis**
    - Skin :
        - Hypermelanotic pigmentation
    - Cardiac :
        - Cardiomyopathy
        - Congestive heart failure
        - Arrhythmia
    - Endocrine :
        - Diabetes mellitus
        - Hypogonadism
    - Liver :
        - Cirrhosis
        - Primary hepatocellular carcinoma
    - Skeletal :
        - Arthropathy
    - Abdomen :
        - Abdominal pain
        - Hepatomegaly
        - Splenomegaly
    - Inheritance :
        - Autosomal recessive

The Ferritin is very high. This may be an inflammatory condition possibly involving the liver. This may also be a condition associated with improper utilization of iron known as Hemochromatosis. These values would indicate an iron handling problem and this could possibly lead to Hemochromatosis. Donating blood as noted below is advised.

Hemochromatosis is excess iron stores. The solution for Hemochromatosis is periodic phlebotomies (blood letting) in order to pull excess iron out of your system and lower your iron levels. Ferritin is a blood test that detects the level of iron stores and iron reserves. The Ferritin test determines the severity of Hemochromatosis and can be used to monitor the need for therapeutic phlebotomies. In the early stages there are no symptoms or only vague symptoms such as painful joints, fatigue, weakness, a loss of libido/sex drive, abdominal pains and swelling, auto immune thyroid problems, auto immune disease, and various heart problems, such as a-fib and heart flutters and low testosterone in men. If left untreated, the excess iron (Ferritin) builds up in the organs for hemochromatosis patients - especially in the liver, heart, spleen, and pancreas - it tends to destroy cells. Eventually, the iron builds up in the organs similar to rust.

This 'rust' or iron overload in the brain is linked with the neurofibril tangles and amyloid-beta plaques that are common in Alzheimer's patients. Basically, to help avoid or slow Alzheimer's disease, it would be prudent to reduce Ferritin and Serum Iron to optimal or even slightly lower levels.

Long term excess iron can cause hormonal problems in men and women as well as frequent infections, skin bronzing or hair loss. Hemochromatosis can be a significant cause of early death especially in men who are being treated for heart, liver, kidney disease, cancer, high blood pressure, diabetes, stroke or other chronic problems. Liver cirrhosis (liver scarring), spleen enlargement (splenomegaly), liver cancer, heart failure, diabetes, and arthritis are all possibilities for advanced untreated hemochromatosis sufferers as the excess iron builds up to cause tissue damage.

Hemochromatosis is rare in women who are having monthly periods. However, as a women enters menopause, women develop it at the same rate as men once menses stops. Various extensive drugs, hormones and treatments might be tried when the most important thing to do is to get rid of some iron using phlebotomies on a regular basis. Genetic or not, this is a familial condition- if one person in the family has it, more than likely other members and extended family are also affected. It is recommended that one phlebotomy (having blood taken or drawn) of one pint of blood at least 2-4 weeks before your next blood test is recommended if cancer, anemia or other contraindications for phlebotomy are absent.

SIDEBAR: WHAT IS FERRITIN?

- Ferritin is a protein complex that binds to iron and has a direct correlation to the level of iron stores in the body.2
- Approximately 250mg of iron exit the body with each blood donation thereby lowering overall Ferritin levels without significantly altering other tests such as serum iron.3
- Excess stores of iron, indicated by high Ferritin, can increase cellular oxidative stress and damage tissues. This may lead to insulin resistance and abnormal glucose metabolism. 1,4
- Several studies show that decreasing Ferritin levels directly correlates to a reduced Hemoglobin A1C. 1,4

Importance of Follow Up

- The Ferritin is something many doctors would not think to test, however the protein complex reflects the total amount of iron stored in the body and can cause high inflammation, thyroid problems and add to diabetic symptoms.
- Therapeutic phlebotomy will help reduce ferritin, so I urged the patient do this, then retest just that marker.
- In two weeks, the Ferritin level dropped 35 points so I recommended monthly donations to continue clearing excess iron out of his system.

Identifying Hemochromatosis

The simple keys to diagnosis and management of Hemochromatosis

High Ferritin
High Hematocrit
High Hemoglobin
Low/normal CRP & ESR

} Hemochromatosis every time in my many years of practice.

Note: Phlebotomy will not be done if the Hct is below 38%, and/or Hgb is below 14gm/dl regardless of the level of Ferritin or Transferrin. Better check the ESR, CRP, Diabetes, liver or something else that would cause the Ferritin and/or Transferrin to be elevated. Manage the rate of phlebotomy with the Ferritin, Hct and Hgb levels.

- **High Ferritin – Notice the low serum iron and anemia**
  - **Female; age 54; weight 125; Blood Type O;**

Test Description	Current Result	Current Rating	Healthy				Clinical			Units
Glucose	98.00	Opt	85.00	-	100.00		65.00	-	110.00	mg/dl
Hemoglobin A1C (Gly-Hgh)	5.50	hi	4.00	-	5.40		3.40	-	6.10	%
Uric Acid	2.30	LO	4.00	-	6.00		2.50	-	8.00	mg/dl
Blood Urea Nitrogen (BUN)	12.00	lo	13.00	-	18.00		10.00	-	20.00	mg/dl
Creatinine	0.80	Opt	0.60	-	1.00		0.50	-	1.50	mg/dl
BUN / Creatinine Ratio	15.00	Opt	13.00	-	17.00		7.50	-	18.50	ratio
Sodium	141.00	Opt	140.00	-	144.00		138.00	-	146.00	meq/dl
Potassium	4.40	Opt	4.00	-	4.60		3.50	-	5.50	meq/dl
Chloride	104.00	Opt	100.00	-	106.00		96.00	-	110.00	meq/dl
Magnesium	2.30	Opt	2.20	-	2.60		1.70	-	2.40	mg/dl
Calcium	9.50	lo	9.70	-	10.10		8.60	-	10.70	mg/dl
Phosphorus	3.60	Opt	3.40	-	4.00		2.40	-	4.60	mg/dl
Calcium / Albumin Ratio	2.07	lo	2.20	-	2.50		2.03	-	2.71	ratio
Total Protein	7.10	Opt	7.10	-	7.60		6.00	-	8.00	gm/dl
Albumin	4.60	hi	4.00	-	4.50		3.50	-	5.00	gm/dl
Globulin	2.50	lo	2.80	-	3.50		1.90	-	3.70	gm/dl
A / G Ratio	1.80	hi	1.20	-	1.60		1.10	-	2.30	ratio
Total Bilirubin	0.50	Opt	0.38	-	0.93		0.10	-	1.20	mg/dl
Alkaline Phospatase	103.00	hi	60.00	-	80.00		41.00	-	138.00	mu/ml
LDH	135.00	Opt	120.00	-	160.00		100.00	-	225.00	mu/ml
SGOT (AST)	16.00	lo	18.00	-	26.00		0.00	-	40.00	mu/ml
SGPT (ALT)	16.00	lo	18.00	-	26.00		0.00	-	47.00	mu/ml
GGT	13.00	Opt	10.00	-	36.00		5.00	-	65.00	mu/ml
Serium Iron	70.00	lo	85.00	-	120.00		50.00	-	180.00	mcg/dl
Ferritin	718.00	HI	12.50	-	218.30		10.00	-	291.00	ng/ml
Cholesterol	148.00	lo	150.00	-	180.00		140.00	-	200.00	mg/dl
Triglyceride	76.00	lo	80.00	-	115.00		10.00	-	195.00	mg/dl
HDL Cholesterol	50.00	lo	55.00	-	120.00		35.00	-	55.00	mg/dl
LDL Cholesterol	82.00	Opt	50.00	-	110.00		65.00	-	130.00	mg/dl
VLDL	15.00	Opt	5.00	-	20.00		5.00	-	40.00	mg/dl
Total Cholesterol / HDL Ratio	2.90	Opt	0.00	-	4.00		0.00	-	5.00	ratio
T4	9.70	hi	7.00	-	9.00		5.50	-	13.00	mcg/dl
T3	25.00	LO	36.00	-	40.00		32.00	-	43.00	%
T7	2.40	lo	2.60	-	3.60		2.10	-	4.70	
White Blood Count	7.10	Opt	5.00	-	8.00		4.80	-	10.80	k/cumm
Red Blood Count	4.19	LO	4.50	-	5.50		4.50	-	5.50	m/cumm
Hemoglobin	13.60	lo	14.00	-	15.00		12.00	-	16.00	gm/dl
Hematocrit	40.30	Opt	40.00	-	47.00		37.00	-	47.00	%
MCV	96.00	Opt	85.00	-	97.00		82.00	-	99.00	cu.m
MCH	32.40	hi	27.00	-	31.00		27.50	-	32.50	pg
MCHC	33.70	Opt	32.00	-	34.00		32.00	-	36.00	%

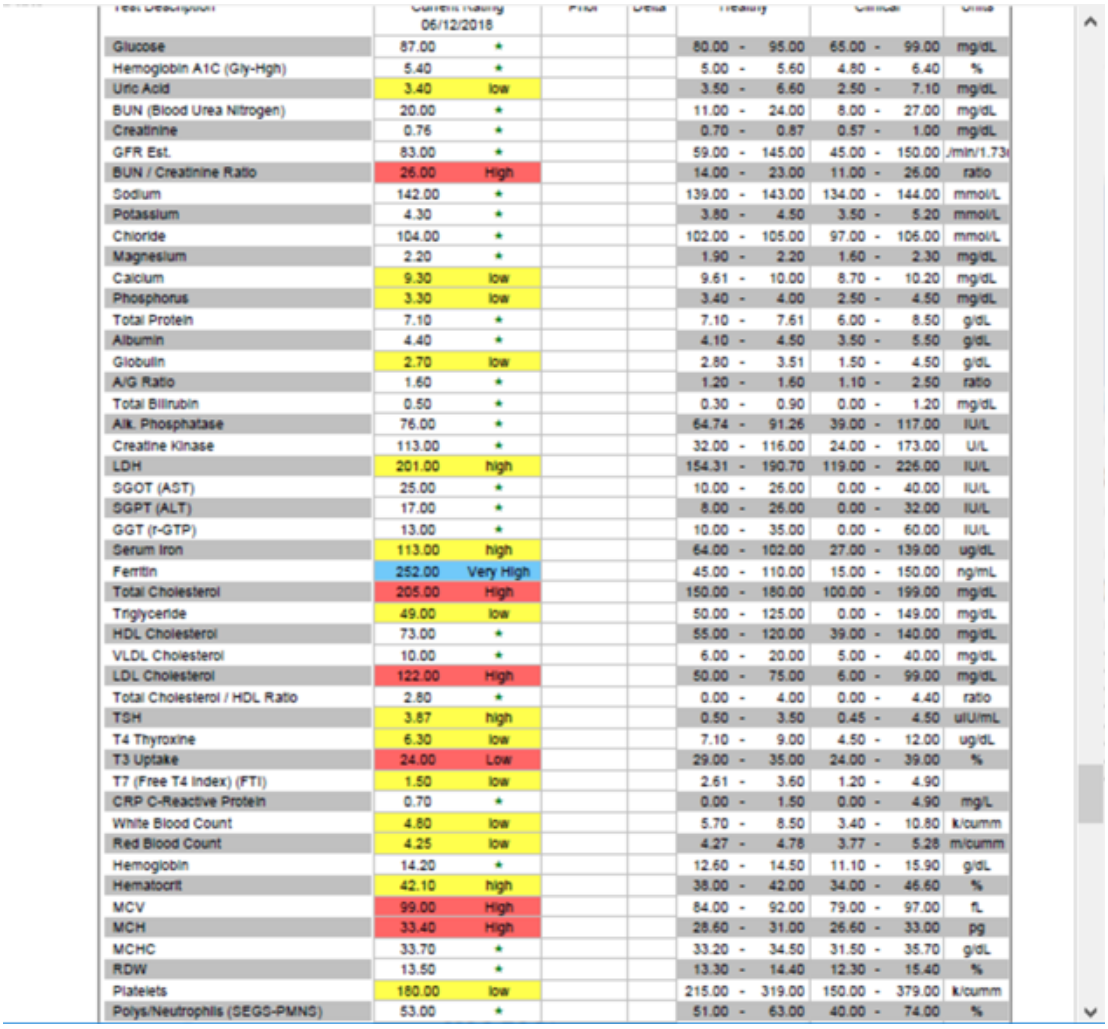
6-2018 Email from SBN member:
I can't tell you how much better I feel since taking your recommended nutrition. I have a history of TBI and my symptoms have been getting progressively worse over the last few years. As it turns out, the symptoms that I was attributing to my TBI turned out to be from hemochromatosis. Now that I've dealt with that and am working to heal my damaged organs I feel like a million bucks! I am able to work almost twice the amount of hours I was before, I no longer have daily headaches and I can now have a glass of wine without feeling like crap. Everyone in my life has noticed the difference, and honestly, this has been life changing for me.

Classic case 64 y/o female
6-2018 Question from SBN member
What is wrong?

Progressive thyroid problems,
Hormone problems developing: hot flashes, decreased sex drive, brain fog, insomnia, fatigue, feels cold, leg cramps, thinning hair, poor memory

Levothyroxine and Nature-Throid
-even higher levels of thyroid support are not helping.

EASY: Hemochromatosis!!!



Test Description	Current Rating 06/12/2018		Prior	Delta	Healthy	Clinical	Units
Glucose	87.00	*			80.00 - 95.00	65.00 - 99.00	mg/dL
Hemoglobin A1C (Gly-Hgh)	5.40	*			5.00 - 5.60	4.80 - 6.40	%
Uric Acid	3.40	low			3.50 - 6.60	2.50 - 7.10	mg/dL
BUN (Blood Urea Nitrogen)	20.00	*			11.00 - 24.00	8.00 - 27.00	mg/dL
Creatinine	0.76	*			0.70 - 0.87	0.57 - 1.00	mg/dL
GFR Est.	83.00	*			59.00 - 145.00	45.00 - 150.00	/min/1.73
BUN / Creatinine Ratio	26.00	High			14.00 - 23.00	11.00 - 26.00	ratio
Sodium	142.00	*			139.00 - 143.00	134.00 - 144.00	mmol/L
Potassium	4.30	*			3.80 - 4.50	3.50 - 5.20	mmol/L
Chloride	104.00	*			102.00 - 105.00	97.00 - 106.00	mmol/L
Magnesium	2.20	*			1.90 - 2.20	1.60 - 2.30	mg/dL
Calcium	9.30	low			9.61 - 10.00	8.70 - 10.20	mg/dL
Phosphorus	3.30	low			3.40 - 4.00	2.50 - 4.50	mg/dL
Total Protein	7.10	*			7.10 - 7.61	6.00 - 8.50	g/dL
Albumin	4.40	*			4.10 - 4.50	3.50 - 5.50	g/dL
Globulin	2.70	low			2.80 - 3.51	1.50 - 4.50	g/dL
A/G Ratio	1.60	*			1.20 - 1.60	1.10 - 2.50	ratio
Total Bilirubin	0.50	*			0.30 - 0.90	0.00 - 1.20	mg/dL
Alk. Phosphatase	76.00	*			64.74 - 91.26	39.00 - 117.00	IU/L
Creatine Kinase	113.00	*			32.00 - 116.00	24.00 - 173.00	U/L
LDH	201.00	high			154.31 - 190.70	119.00 - 226.00	IU/L
SGOT (AST)	25.00	*			10.00 - 26.00	0.00 - 40.00	IU/L
SGPT (ALT)	17.00	*			8.00 - 26.00	0.00 - 32.00	IU/L
GGT (r-GTP)	13.00	*			10.00 - 35.00	0.00 - 60.00	IU/L
Serum Iron	113.00	high			64.00 - 102.00	27.00 - 139.00	ug/dL
Ferritin	252.00	Very High			45.00 - 110.00	15.00 - 150.00	ng/mL
Total Cholesterol	205.00	High			150.00 - 180.00	100.00 - 199.00	mg/dL
Triglyceride	49.00	low			50.00 - 125.00	0.00 - 149.00	mg/dL
HDL Cholesterol	73.00	*			55.00 - 120.00	39.00 - 140.00	mg/dL
VLDL Cholesterol	10.00	*			6.00 - 20.00	5.00 - 40.00	mg/dL
LDL Cholesterol	122.00	High			50.00 - 75.00	6.00 - 99.00	mg/dL
Total Cholesterol / HDL Ratio	2.80	*			0.00 - 4.00	0.00 - 4.40	ratio
TSH	3.87	high			0.50 - 3.50	0.45 - 4.50	uIU/mL
T4 Thyroxine	6.30	low			7.10 - 9.00	4.50 - 12.00	ug/dL
T3 Uptake	24.00	Low			29.00 - 35.00	24.00 - 39.00	%
T7 (Free T4 Index) (FTI)	1.50	low			2.61 - 3.60	1.20 - 4.90	
CRP C-Reactive Protein	0.70	*			0.00 - 1.50	0.00 - 4.90	mg/L
White Blood Count	4.80	low			5.70 - 8.50	3.40 - 10.80	k/cumm
Red Blood Count	4.25	low			4.27 - 4.78	3.77 - 5.28	m/cumm
Hemoglobin	14.20	*			12.60 - 14.50	11.10 - 15.90	g/dL
Hematocrit	42.10	high			38.00 - 42.00	34.00 - 46.60	%
MCV	99.00	High			84.00 - 92.00	79.00 - 97.00	fL
MCH	33.40	High			28.60 - 31.00	26.60 - 33.00	pg
MCHC	33.70	*			33.20 - 34.50	31.50 - 35.70	g/dL
RDW	13.50	*			13.30 - 14.40	12.30 - 15.40	%
Platelets	180.00	low			215.00 - 319.00	150.00 - 379.00	k/cumm
Polys/Neutrophils (SEGS-PMNS)	53.00	*			51.00 - 63.00	40.00 - 74.00	%

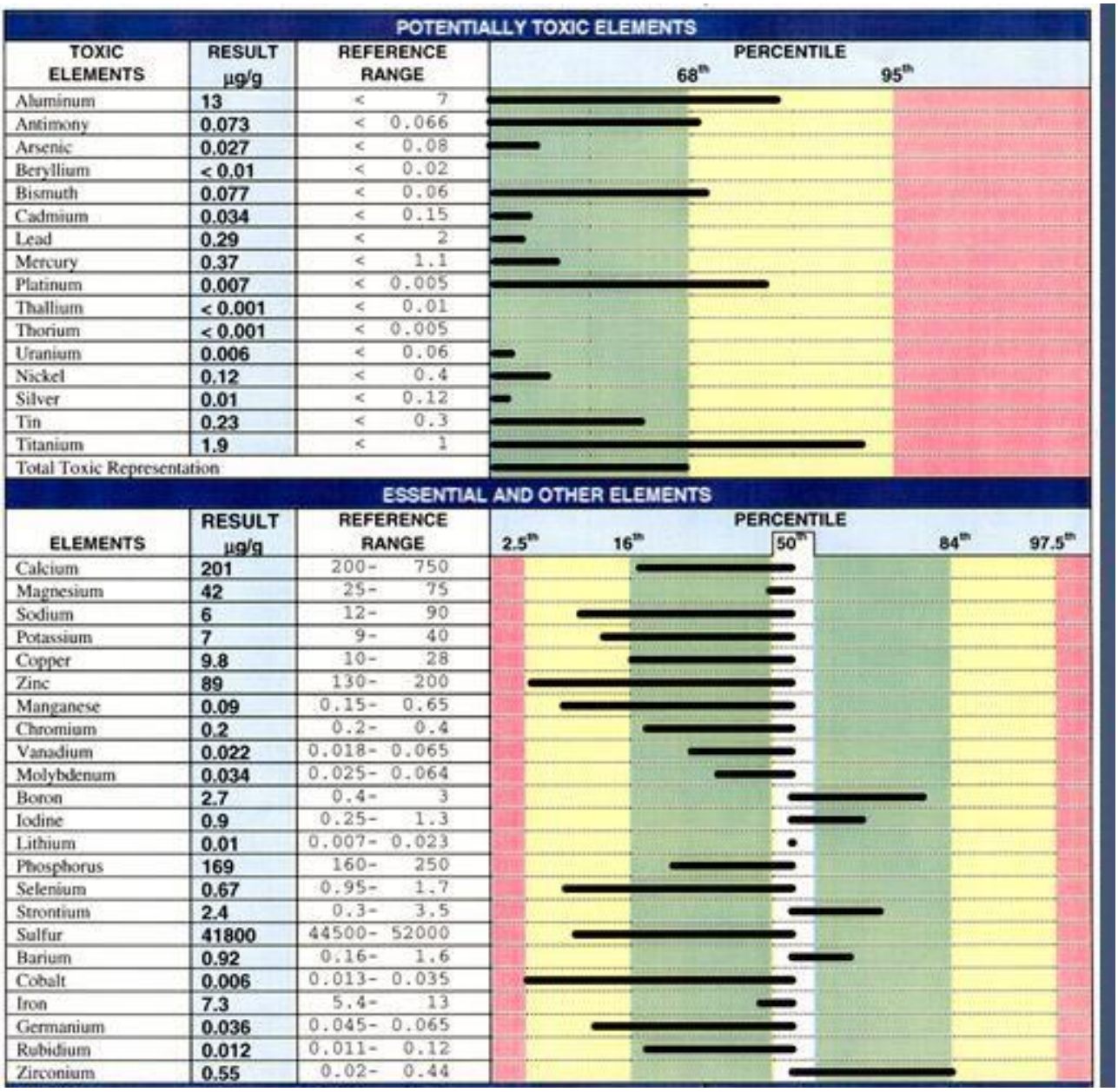
- **Case #9 – Present symptoms: High BP, Sexual Dysfunction; Age 55; Weight 240**
  - Claims general good health
  - High blood pressure
  - Overweight
  - Gained about 10-15 lbs. in the last 5 years
  - Significant decrease in sexual function
  - Edema or puffiness under his eyes
  - Drinks about 1-2 Pepsi's daily
  - PSA of 4.1 in '99
- **Test #1**

Test Description	Current Result	Current Rating	Homeostatic	Clinical	units
Date	3/28/1900				
Glucose	88	opt	85.00 - 100.00	65.00 - 110.00	mg/dl
Hemoglobin A1C	5.7	hi	4.00 - 5.40	3.40 - 6.10	%
SGOT	61	HI	18.00 - 26.00	0 - 40.00	mu/ml
SGPT	84	HI	18.00 - 26.00	0 - 47.00	mu/ml
GGT	53	hi	10.00 - 36.00	5.00 - 65.00	mu/ml
Serium Iron	113	opt	85.00 - 120.00	50.00 - 180.00	mcg/dl
Ferritin	842	HI	12.50 - 218.30	10.00 - 291.00	ng/ml
Hemoglobin	16.4	HI	14.00 - 15.00	12.00 - 16.00	gm/dl
Hematocrit	47.1	HI	40.00 - 47.00	37.00 - 47.00	%
Erythrocyte Sed Rate	5	opt	0 - 8.00	0 - 9.00	mm/HR
C Reactive Protein	5.1	HI	0 - 0	0 - 4.90	mg/L

- **Test #2**

Test Description	Current Result	Current Rating	Prior Result	Delta	Homeostatic	Clinical	units
Date	5/18/2000		3/28/2000				
Glucose	97	opt	88		85.00 - 100.00	65.00 - 110.00	mg/dl
Hemoglobin A1C			5.7		4.00 - 5.40	3.40 - 6.10	%
SGOT	46	HI	61	☺	18.00 - 26.00	0 - 40.00	mu/ml
SGPT	33	hi	84	☺	18.00 - 26.00	0 - 47.00	mu/ml
GGT	23	opt	53	☺	10.00 - 36.00	5.00 - 65.00	mu/ml
Serium Iron	48	LO	113	☹	85.00 - 120.00	50.00 - 180.00	mcg/dl
Ferritin	362	HI	842	☺	12.50 - 218.30	10.00 - 291.00	ng/ml
Hemoglobin	14.8	opt	16.4	☺	14.00 - 15.00	12.00 - 16.00	gm/dl
Hematocrit	45.3	opt	47.1	☺	40.00 - 47.00	37.00 - 47.00	%
Erythrocyte Sed Rate	6	opt	5		0 - 8.00	0 - 9.00	mm/HR
C Reactive Protein	0	opt	5.1	☺	0 - 0	0 - 4.90	mg/L

- **Hair Test**



POTENTIALLY TOXIC ELEMENTS

TOXIC ELEMENTS	RESULT µg/g	REFERENCE RANGE
Aluminum	13	< 7
Antimony	0.073	< 0.066
Arsenic	0.027	< 0.08
Beryllium	< 0.01	< 0.02
Bismuth	0.077	< 0.06
Cadmium	0.034	< 0.15
Lead	0.29	< 2
Mercury	0.37	< 1.1
Platinum	0.007	< 0.005
Thallium	< 0.001	< 0.01
Thorium	< 0.001	< 0.005
Uranium	0.006	< 0.06
Nickel	0.12	< 0.4
Silver	0.01	< 0.12
Tin	0.23	< 0.3
Titanium	1.9	< 1
Total Toxic Representation		

PERCENTILE: 68th, 95th

ESSENTIAL AND OTHER ELEMENTS

ELEMENTS	RESULT µg/g	REFERENCE RANGE
Calcium	201	200- 750
Magnesium	42	25- 75
Sodium	6	12- 90
Potassium	7	9- 40
Copper	9.8	10- 28
Zinc	89	130- 200
Manganese	0.09	0.15- 0.65
Chromium	0.2	0.2- 0.4
Vanadium	0.022	0.018- 0.065
Molybdenum	0.034	0.025- 0.064
Boron	2.7	0.4- 3
Iodine	0.9	0.25- 1.3
Lithium	0.01	0.007- 0.023
Phosphorus	169	160- 250
Selenium	0.67	0.95- 1.7
Strontium	2.4	0.3- 3.5
Sulfur	41800	44500- 52000
Barium	0.92	0.16- 1.6
Cobalt	0.006	0.013- 0.035
Iron	7.3	5.4- 13
Germanium	0.036	0.045- 0.065
Rubidium	0.012	0.011- 0.12
Zirconium	0.55	0.02- 0.44

PERCENTILE: 2.5th, 16th, 50th, 84th, 97.5th

- **Herbert H. Hair Test Results and Blood Test Results**

- **Herbert H. Chelation Tests**
- **AGE related Complaints?**
- **His MD said: 'Just getting older'**

July 2010 63 y/o Male 5'6" 175 lbs

Primary Complaints:

1. High Blood Pressure
2. High Cholesterol
3. Gastro/Intestinal Dysfunction
4. Anemia
5. ED
6. Mild Fatigue
7. Headaches

Medications:

Aspirin	+2 years
Simvastatin	+2 years
Lisinopril	+2 years

A DMSA urinary challenge was ran on this patient because nearly all of the toxic elements in his hair results were yellow or clear/optimal.

Legend: Warning | High Risk | Critical

Test Description	Current Rating 07/21/2010	
Toxic Elements		
Aluminum	2.10	★
Antimony	0.02	★
Arsenic	0.03	★
Barium	0.10	★
Beryllium	0.01	★
Bismuth	0.03	★
Cadmium	0.04	high
Lead	0.78	high
Mercury	0.44	★
Platinum	0.00	★
Thallium	0.00	★
Thorium	0.00	★
Uranium	0.13	High
Nickel	0.05	★
Silver	0.03	★
Tin	0.04	★
Titanium	0.38	★
Essential Elements		
Calcium	202.00	low
Magnesium	110.00	High
Sodium	110.00	★
Potassium	16.00	low
Copper	67.00	Very High
Zinc	200.00	high
Manganese	0.32	★
Chromium	0.48	low
Vanadium	0.03	low
Molybdenum	0.03	low
Boron	0.39	Low
Iodine	0.36	low
Lithium	0.01	Low
Phosphorus	182.00	★
Selenium	0.88	★
Strontium	0.18	Low
Sulfur	48100.00	high
Cobalt	0.05	High
Iron	13.00	★
Germanium	0.04	★
Rubidium	0.02	low
Zirconium	0.03	Low

Legend: Warning | High Risk | Critical | ★ Optimal

Test Description	Current Rating 07/23/2010		Prior 11/30/2009
Glucose	89.00	★	
Hemoglobin A1C (Gly-Hgh)	6.00	High	
Uric Acid	6.60	high	
BUN (Blood Urea Nitrogen)	21.00	high	
Creatinine	1.02	★	
GFR EST (Glomerular Filtration Rate)	59.00	★	
BUN / Creatinine Ratio	21.00	high	
Sodium	140.00	★	
Potassium	4.30	★	
Chloride	100.00	low	
Magnesium	2.50	★	
Calcium	10.00	high	
Phosphorus	2.80	low	
Total Protein	7.60	★	
Albumin	4.90	High	
Globulin	2.70	low	
A/G Ratio	1.80	high	
Total Bilirubin	1.10	high	
Alk. Phosphatase 25-530	97.00	★	
Creatine Kinase	164.00	high	
LDH	174.00	high	
SGOT (AST)	32.00	high	
SGPT (ALT)	50.00	High	
GGT	29.00	★	
Serum Iron	131.00	high	
Ferritin	472.00	High	
Total Cholesterol	182.00	high	186.00
Triglyceride	70.00	low	80.00
HDL Cholesterol	47.00	★	44.00
VLDL Cholesterol	14.00	★	16.00
LDL Cholesterol	121.00	High	126.00
Total Cholesterol / HDL Ratio	3.90	★	4.23
TSH	1.87	★	
T4 Thyroxine	10.00	high	
T3 Uptake	30.00	★	
T7 Free Thyroxine Index (FTI)	3.00	★	
CRP C-Reactive Protein	0.70	★	
White Blood Count	6.80	★	
Red Blood Count	5.16	★	
Hemoglobin	16.90	high	
Hematocrit	46.40	★	
MCV	90.00	★	
MCH	32.80	high	
MCHC	36.40	High	
RDW	13.10	★	
Platelets	292.00	high	
Polys/Neutrophils (SEGS-PMNS)	65.00	high	
Lymphocytes	26.00	★	
Monocytes	7.00	high	
Eosinophils	2.00	★	
Basophils	0.00	★	
Neutrophils/Polys (Absolute)	4.40	★	
Lymphs (Absolute)	1.80	low	
Monocytes (Absolute)	0.50	★	

Legend: Warning | High Risk | Critical | ★ Optimal | Im

Test Description	Current Rating 07/25/2010		Prior 07/24/2010	Delta
Agent	DMSA		Pre-Challen	
Dose	1700mg			
Interval	6		6	
Toxic Elements				
Aluminum (UA)	0.00	★	3.10	
Antimony (UA)	0.00	★	0.00	
Arsenic (UA)	0.00	★	6.40	
Barium (UA)	2.30	★	2.50	
Beryllium (UA)	0.00	★	0.00	
Bismuth (UA)	0.00	★	0.00	
Cadmium (UA)	0.40	★	0.30	
Cesium (UA)	4.00	★	3.50	
Gadolinium (UA)	0.00	★	0.00	
Lead (UA)	8.80	High	0.50	☹
Mercury (UA)	6.20	High	1.30	☹
Nickel (UA)	2.20	★	2.50	
Palladium (UA)	0.00	★	0.00	
Platinum (UA)	0.00	★	0.00	
Tellurium (UA)	0.00	★	0.00	
Thallium (UA)	0.20	★	0.20	
Thorium (UA)	0.00	★	0.00	
Tin (UA)	3.90	★	2.30	
Tungsten (UA)	0.10	★	0.00	
Uranium (UA)	0.00	★	0.00	

- **Important Questions**
  - What were Herbert's Real Problems?
  - What are symptoms of the Real problem?
  - Would functional tests have been positive in urine or saliva?
  - Adrenal function? Would patient 'feel' better on adrenal support?
  - Hormones: Cortisol? Testosterone? DHEA? Testosterone? Growth Hormone?
  - Amino Acids?
  - Fatty Acids?
  - Neurotransmitters?
  - Urine Organic Acids?
  - Digestion: food allergies? gluten sensitivities?
  - Psychological/mental Impact of toxic elements?
- **Basic keys to consultation**
  - How long have you had this problem?
  - Secondary:
    - Why are you sick now?
    - What is different now?
- **Keys to completing consulation**
  - I don't have a <u>cure or vitamin</u> for your problem.
  - Our goal is to get you <u>healthier.</u>
  - **If we can get you as healthy as you were _X_ years ago, that would be good, wouldn't it?**
  - Let's get started, the longer you wait the more damage can be done.
  - We need some testing.....
    - Case: S—Lupus
  - Acknowledge the problem, why they came in, how it is affecting their life
  - Identify the medications and relate that your goal is not to take them off of the medications but to get them healthy so that they no longer need them.
  - Identify how long they have had the problem and that something has changed.
  - The main focus is not to treat their problem but to get them as healthy as they were before the problem started.
  - Let's get started before more serious conditions develop.
- **Hormones: Where did they come from?**
  - Daryl E.: low testosterone around **125** for years even on a testosterone patch, he had taken shots to no avail. After being on the SBN program for 4 months his testosterone is **325** (clinical range: 241-827; healthy range: 390-652) Among other things he says he feels "A thousand percent better".
  - <u>No 'natural' hormones were used: yam, DHEA, Melatonin etc.</u>
- **EKG – Marketing**
  - 9-1-2005
  - Just wanted to let you know that the company **www.discountcardiology.com** is giving me an awesome deal on that EKG. Gordon is giving me the machine for 1450 plus he is throwing in paper, clips and electrodes. I had them price an Oximetry unit as well. I told them that there was one on e-bay that was cheaper than they had it listed. He beat the price plus took off another 10%. Just thought you would want to know to pass on the word.

    Also thought I'd share with you...

I went to the local health club-5,000 member place. **They want me to come in and do health fairs. They were so impressed with my work,** the CEO couldn't get over it. They have been in town for at least 20 years and have **never let Chiros in to do "spinal screenings."** When I went to them and offered to do UA's, EKG, etc. for their clients, they jumped on it. The CEO has been to our office this week (to check us out) and they are already working out a schedule. Hence, my hurry to get the EKG. This could be huge for us.
Thanks for your help.
Dawn

- It is not the critic who counts, not the man who points out how the strong man stumbled, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena; whose face is marred by dust and sweat and blood; who strives valiantly, who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause; who, at the best, knows in the end the triumph of high achievement; and who, at the worst, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat.
  -Theodore Roosevelt

Do something today to be healthier than you were yesterday.
-Van D. Merkle

Van D Merkle DC, DABCI, CCN,
DCBCN, Vice President of CBCN

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