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Jerry Emanuelson's Blood Tests	October 30, 2007	May 5, 2008	May 12, 2009	Limits
Glucose, Fasting Serum	94	86	91	65-99 mg/dL
Triglycerides	124	80	71	0-149 mg/dL
HDL Cholesterol	44	43	43	40-59 mg/dL
LDL Cholesterol (Calc)	118	112	92	0-99 mg/dL
Total Cholesterol	187	171	149	100-199 mg/dL
Homocysteine		5.5	6.0	0-15 umol/L
C Reactive Protein		1.63	1.02	0-3.0 mg/L
IGF-1	131	189	105	81-225 ng/mL
Thyroid Stim. Hormone (TSH)	2.83	0.937	1.879	0.35-5.50 uIU/mL
Free Thyroxine (T4)	1.68			0.61-1.76 ng/dL
Free Triiodothyroxine (T3)	3.2			2.3-4.2 pg/mL
Hemoglobin A1C (HbA1C)	5.7	5.8		4.8-5.9 percent
Ferritin, Serum		26	35	22-322 ng/mL
Creatinine	1.0	1.04	1.12	0.5-1.50 mg/dL
BUN	11	10	12	5-26 mg/dL
Hemoglobin	15.5	14.9	15.1	13.0-18.0 g/dL
Hematocrit	45.2	43.7	44.8	37-55 percent
Testosterone, serum	1263	1210	610	241-827 ng/dL
Testosterone, free	27.66	21.9	10.0	6.6-18.1 ng/dL
Sodium, serum	135	136	137	135-145 mmol/L
Potassium, serum	4.5	4.2	4.1	3.5-5.2 mmol/L
Calcium, serum	9.2	9.2	9.1	8.5-10.6 mg/dL
Chloride, serum	99	101	102	97-108 mmol/L

Prostate Specific Antigen (PSA)	0.7	1.0	0.9	0-4.0 ng/mL
Estradiol		18	29	0-53 pg/mL
DHEA Sulfate		360	82	42-290 ug/dL
Albumin, serum	4.3	3.9	3.9	3.6-4.8 g/dL
Globulin, Total	2.4	2.5	2.5	1.5-4.5 g/dL
A/G ratio	1.8	1.6	1.6	1.1-2.5
Bilirubin, total	0.5	0.6	0.7	0.1-1.2 mg/dL
Protein, total serum	6.7	6.4	6.4	6.0-8.5 g/dL
Alkaline Phosphatase	62	59	59	25-160 IU/L
AST (SGOT)	30	27	29	0-40 IU/L
ALT (SGPT)	36	36	35	0-55 IU/L
Uric Acid, serum		5.6	5.1	2.4-4.8 mg/dL
WBC	5.2	5.1	5.3	4.0-10.5 x10E3/uL
RBC	4.67	4.57	4.65	4.2-6.0 x10E6/uL
MCV	97	96	96	80-98 fL
MCH	33.3	32.6	32.4	27.0-34.0 pg
MCHC	34.3	34.1	33.6	32.0-36.0 g/dL
RDW	13.7	13.1	14.6	11.7-15.0 percent
Platelets	357	348	274	140-415 x10E3/uL
Neutrophils	42	38	43	40-74 percent
Lymphocytes	39	36	41	14-46 percent
Monocytes	9	10	8	4-13 percent
Eosinophils	9	16	7	0-7 percent
Basophils	1	0	1	0-3 percent
Neutrophils (absolute)	2.2	1.9	2.3	1.8-7.8 x10E3/uL

Lymphocytes (absolute)	2.0	1.8	2.2	0.7-4.5 x10E3/uL
Monocytes (absolute)	0.5	0.5	0.4	0.1-1.0 x10E3/uL
Eosinophils (absolute)	0.5	0.8	0.4	0.0-0.4 x10E3/uL
Basophils (absolute)	0.1	0.0	0.1	0.0-0.2 x10E3/uL

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Comments: The first (October 30) test was done when I was 59 years old, and the second (May 5) test was done when I was 60. The third test (May 12, 2009) was done at age 61. The limits shown are Labcorp reference ranges. Different labs have somewhat different reference ranges, and some reference ranges are age dependent.

My only lifetime health problem that has caused any significant symptoms has been sinus problems. My most significant health problem that has yet to show any symptoms is spinal osteoporosis, for which I have a strong genetic susceptibility. My father died as a direct result of spinal osteoporosis. Dying in this manner while your spine slowly crumbles away, and under required full-time nursing care, is not recommended.

I had to spend six months off of growth hormone during late 2007 and early 2008 due to the FDA decision to try to begin enforcing an obscure law prohibiting the off-label use of growth hormone. During this period, I lost 8 percent of the bone mineral density of my L1 vertebrae, more than 10 percent of my L2 vertebrae, and more than 21 percent of the density of my L3 vertebrae. During this same period, I crossed the threshold from spinal osteopenia to spinal osteoporosis.

My TSH reading on the first test of 2.83, although within the Labcorp reference range, is above the range for normal, healthy people of 0.3. to 2.5. After re-starting growth hormone, my TSH came back to a healthy level of 0.937, despite not changing my dose of thyroid hormone. Most people, like me, who have hypothyroidism, need to keep their TSH in the range of 0.3 to 1.

My testosterone levels on the first two tests are slightly above normal limits. This is not a serious concern since testosterone is necessary for building bone mineral density, and I have no known genetic susceptibility towards conditions that might be worsened by slightly high testosterone levels. My doctor strongly believes that the high testosterone readings are in error. I have actually been reducing my replacement levels of testosterone over the past few years, but my natural levels seem to be very slowly climbing.

My DHEA sulfate levels have also been rising with age in recent years despite reducing my supplemental dosage of DHEA.

Since writing the comments above, I found a polymorphism in my DNA in chromosome 15 on my gene that encodes for the aromatase enzyme. This is undoubtedly responsible for the very large ratio between testosterone and estradiol on my May 5, 2008 test (and also for my rising natural DHEA and testosterone levels during the past few years).

Labcorp's stated reference ranges for estradiol in males is dangerously wide. Labcorp gives the reference range for estradiol as 0-53 pg./ml. Actually, males with an estradiol level much above 40 are likely to have serious problems caused by excess estrogen. Also, nearly all males with estradiol levels below 20 are likely to have low bone mineral density and probably serious osteoporosis.

Some medical scientists who have studied estradiol in men put the lower limit at 18 pg./ml.or less for total estradiol. The ideal level for estradiol in males is probably in a very narrow range around 30 to 34 pg./ml.

My eosinophils are often high because of occasional nasal allergy problems. Like all other parameters, my eosinophils were normal on my last test.

I haven't had time to load the results of my 2010 tests into the chart above.

Some 2010 results were significantly improved.

My HDL is now up to 50 mg/dl. My LDL is 64 mg/dl. My triglycerides are 42 mg/dl.

The improvements in my lipid profile are mostly due to taking Carlson timed-release niacin and a very small dose of simvastatin (20 mg., every other day). I decided to start simvastatin only after DNA tests indicated that I was very unlikely to have any adverse effects from simvastatin and also after increasing my dosage of co-enzyme Q-10 slightly.