

Elite Healthspan Report for A. Sample

Created 03/12/2024

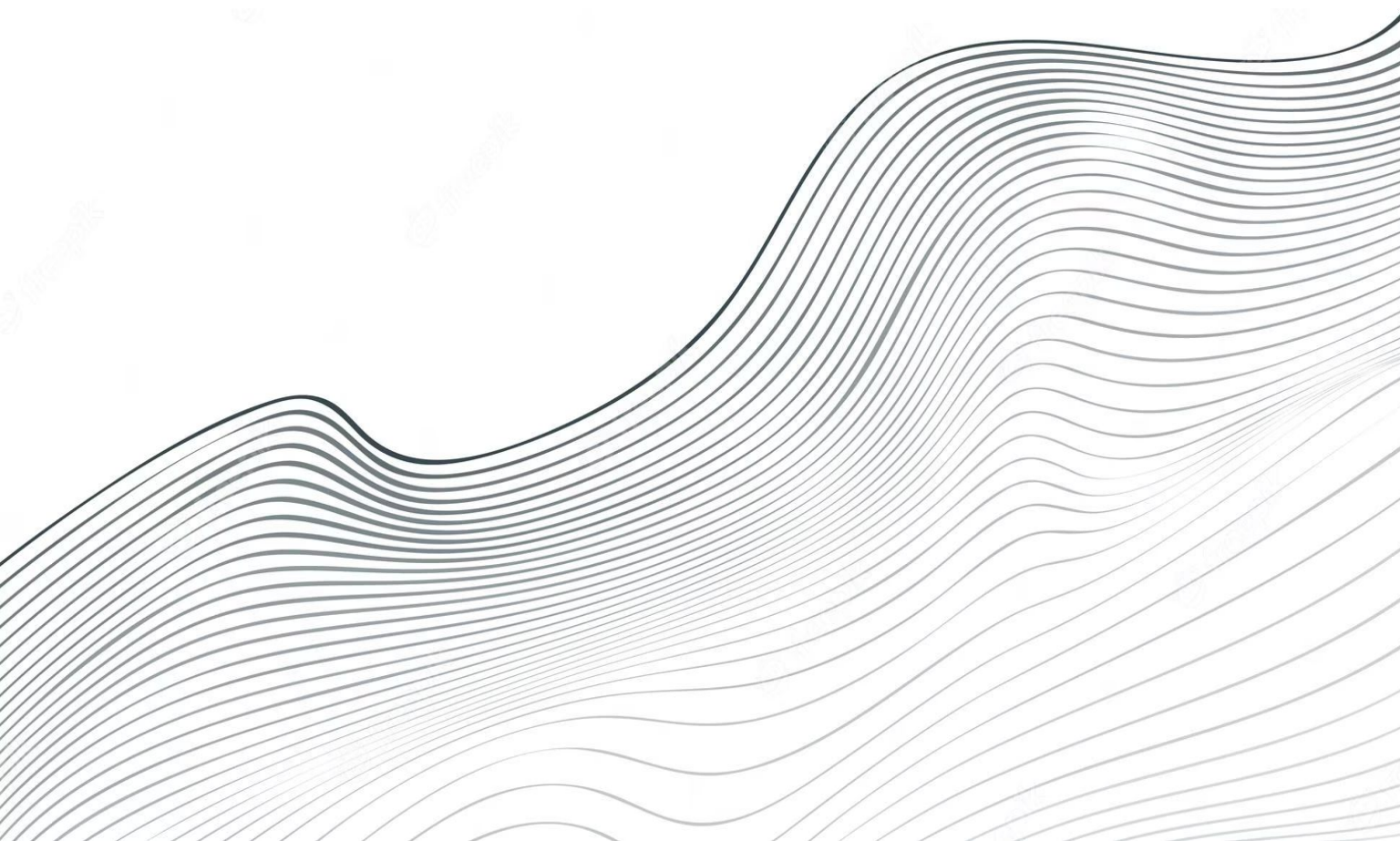


Mission

We strive to design a personalized wellness program for you.

This is a collaborative effort. With your help we create strategies to achieve your long term health goals.

We employ evidence based preventative screenings and assessments to provide a personalized road map to help you achieve your health goals.



Contents	Pg
Healthspan Report Guide	3
Health Goals & Vitals	4
Medications	5
Supplements	6
Current Labs	7
Selected Current & Prior Labs	8
SNP Analysis- Example	9
SNP Analysis- Example	10
Cognitive Testing & Plan	11
Bone & Lean Mass Testing & Plan	12
Bone & Lean Mass Testing & Plan	13
Balance Testing & Plan	14
Medical Symptom Questionnaire	15
Lifestyle Rx: Movement	16
Lifestyle Rx: Movement	17
Lifestyle Rx: Movement	18
Lifestyle Rx: Movement	19
Lifestyle Rx: Sleep	20
Lifestyle Rx: Sleep	21
Lifestyle Rx: Nutrition	22
Lifestyle Rx: Nutrition	23
Lifestyle Rx: Emotional Health	24
Medical Concerns & Treatments	25
Prevention: US Preventative Task Force & More	26
Action Items	27

Healthspan Report Guide

Your healthspan report is an extensive evaluation of your health now and over time. The goal of healthspan is to optimize health so that you can play, work and enjoy time with your loved ones for many years to come. We aim to protect your health and wellbeing.

To protect your health and well-being we suggesting the following assessments or testing based on age and concerns:

- **Thorough comprehensive blood work** including: Metabolic, inflammatory, nutrient and hormonal markers
- **Body composition with Dexa:** Body composition has a vital impact on your healthspan. While we know visceral fat is associated with increased mortality, we focus mainly on muscle and bone mass. Higher lean tissue mass is correlated with better cognitive and physical outcomes.
- **Fitness & Activity Assessment:** We use EKG stress tests or VO2 max testing to understand your fitness. It also allows us to tailor your training zones for mitochondrial and cardiovascular health. (*We may also evaluate your current activity with the use of monitoring devices such as a Whoop Band or Oura Ring.)
- **Sleep Assessment:** We start with sleep questionnaires. We usually also suggest sleep monitoring devices and a sleep lab if necessary.
- **Nutritional Assessment:** We discuss your current nutritional plan and propose a plan based on your goals, fitness, and body composition. (This may also include input from continuous glucose data and genetic markers if desired).
- **Emotional Health Assessments:** Emotional health is intertwined with physical health, in order to achieve optimal healthspan we need to address our emotional health.
- **Age Appropriate Prevention Screening Tests**
- **Cognitive Testing:** We measure memory, processing speed, executive function and other cognitive functions.
- **Medication and Supplement Evaluation and Adjustments**
- **Grip Strength & Analysis**
- **Medical Symptom Questionnaire** (with permission from institute of functional medicine)
- **Medical Concern Pharmacologic and Integrative Assessment**
- **Genetic Polymorphisms**
- **Functional Movement Assessments:** In order to move well and prevent poor balance and falls in our final decades we need to assure we can move well now and correct any issues we may have with our balance or stability.
- **Whole Body MRI**

Patient Stated Health Goals & Vitals

Long Term Health Goals.

I want to live a happy, healthy, positive, mentally and physically active, spiritually vibrant life into my 90's. This means to move my body freely with flexibility with little to no pain. I want to be mentally sharp, spiritually engaged, active in my community, and able to spend quality time with my family and friends.

I will strive to be present and connected while spending time with quality people and purposes that touch my heart and my spiritual world and energy.

Physical Goals:

1. Hiking into my 90s.
2. Able to travel independently in 30- 40 years with my wife.
3. Babysit and lift my grandchildren.
4. Continue walking, swimming, yoga, strength training, and functional movement and maintain flexibility.
5. Eat nutritious foods that support my body's functions and needs.
6. Sleep well. Get enough quality sleep to protect my brain health.

Social Goals:

1. Engage in intellectual conversations into my last decade of life.
2. Feel connected to my family into my last decades.
3. Build relationships and mentor my children and eventually my grandchildren.
4. Learn new things.
5. Develop new friendships with travel interests.
6. Learn how to cook healthy foods and have community dinners.

Short term Health Goals:

1. Optimize sleep and eliminate sleep apnea.
2. Maintain a healthy A1c level of 5.2.
3. Significantly Reduce visceral fat and belly fat.
4. Have a waist circumference of 33 inches.
5. Increase Zone 2 training to 3 hours a week on treadmill/bicycle.
6. Maintain 3-4x week functional weight training.
7. Increase strength training to 3x week. Lift heavy weights.
8. Develop a consistent 5 day a week mindfulness practice.
9. Spend more time outdoors with kids.

Medications

Medications before appointment

Amlodipine 10 MG Oral Tablet by mouth daily

Libre CGM 14 Day monitoring

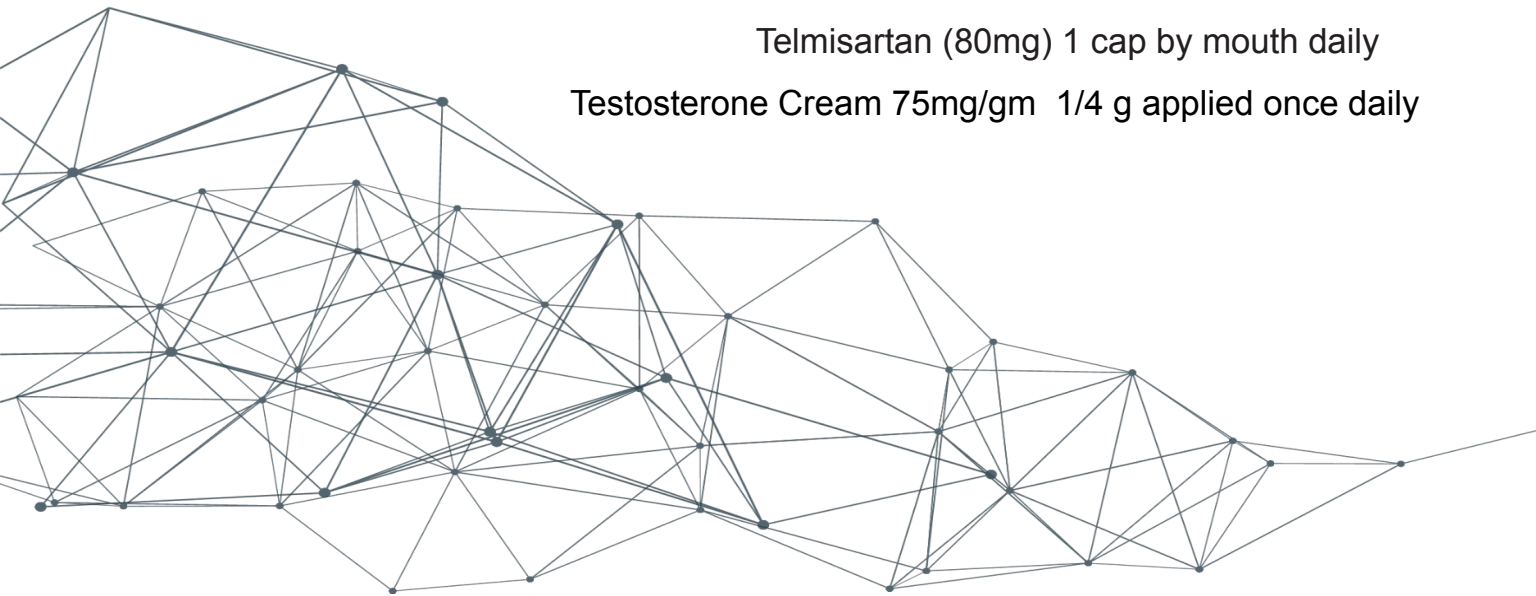
CerefolinNAC 6-90-2--600mg 1 tab by mouth daily

Metformin 500mg ER 1 tab by mouth daily

Simvistatin (20 mg) 1 tablet by mouth every evening

Telmisartan (80mg) 1 cap by mouth daily

Testosterone Cream 75mg/gm 1/4 g applied once daily



Medications after appointment

Amlodipine 10 MG Oral Tablet by mouth daily

Dexcom7 CGM

CerefolinNAC 6-90-2--600mg 1 tab by mouth daily

Metformin 500mg ER 1 tab by mouth daily

Simvistatin (20 mg) 1 tablet by mouth every evening

Telmisartan (80mg) 1 cap by mouth daily

Testosterone Cream 75mg/gm 3/4 g (3 clicks) applied once daily

Supplements

Supplements before appointment:

Carlson Elite EPA Gems - 1AM 1PM,
Kirkland CoQ10 300mg - 1AM 1PM,
Circumin 400mg - 1AM 1PM,
cu/ zinc - 1AM.
Quercetin Phytosome Thorne Research - 1AM 1PM,
Magnesium 150mg - 3 @ bedtime,
Arterial Protect Life Extension - 1 @ bedtime,
Benefiber - once daily,
Pregnenalone 100mg 1 AM
Vitamin D 5000iu with K2 1 AM
Melatonin 6mg
Collagen 20g/day



Supplements after appointment:

Carlson Elite EPA Gems - 1AM 1PM,
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Quercetin Phytosome Thorne Research - 1AM 1PM,
Magnesium 150mg - 3 @ bedtime,
Arterial Protect Life Extension - 1 @ bedtime,
Benefiber - once daily,
Pregnenalone 200mg 100mg AM 100mg PM
Vitamin D 5000iu with K2 1 AM
Melatonin 6mg
Collagen 20g/day

Current Labs

Cardio IQ®									
Test Name	Current		Risk/Reference Interval			Units	Historical		
	Result & Risk		Optimal	Moderate	High		Result & Risk		
	Optimal	Non-Optimal					09/10/2023	06/01/2023	
LIPID PANEL									
CHOLESTEROL, TOTAL	147		<200	N/A	>=200	mg/dL	172	164	
HDL CHOLESTEROL	47		>=40	N/A	<40	mg/dL	48	51	
TRIGLYCERIDES	99		<150	150-199	>=200	mg/dL	85	114	
LDL-CHOLESTEROL	81		<100	100-129	>129	mg/dL (calc)	106	92	
CHOL/HDL C RATIO	3.1		<=3.5	3.6-5.0	>5.0	calc	3.6	3.2	
NON-HDL CHOLESTEROL	100		<130	130-189	>=190	mg/dL (calc)	124	113	
LIPOPROTEIN FRACTIONATION, ION MOBILITY									
LDL PARTICLE NUMBER	1479		<1138	1138-1409	>1409	nmol/L	1556	1612	
LDL SMALL	453		<142	142-219	>219	nmol/L	377	430	
LDL MEDIUM	294		<215	215-301	>301	nmol/L	445	320	
HDL LARGE	5592		>6729	6729-5353	<5353	nmol/L	4850	4491	
LDL PATTERN	B		A	N/A	B	Pattern	B	B	
LDL PEAK SIZE	211.5		>222.9	222.9-217.4	<217.4	Angstrom	215.0	212.7	
APOLIPOPROTEINS									
APOLIPOPROTEIN B	81		<90	90-119	>=120	mg/dL	94	86	
LIPOPROTEIN (a)	<10		<75	75-125	>125	nmol/L	<10	<10	
FATTY ACIDS									
OmegaCheck® Whole Blood: (EPA+DPA+DHA)	10.3		>=5.5	3.8-5.4	<=3.7	% by wt	10.4	-	
ARACHIDONIC ACID/EPA RATIO	2.9 L			3.7-40.7			3.5	-	

Test Name	Current		Risk/Reference Interval			Units	Historical	
	Result & Risk		Optimal	Moderate	High		Result & Risk	
	Optimal	Non-Optimal					09/10/2023	06/01/2023
OMEGA-6/OMEGA-3 RATIO	3.4 L			3.7-14.4			3.7	-
OMEGA-3 TOTAL	10.3					% by wt	10.4	-
EPA	3.6 H			0.2-2.3		% by wt	3.4	-
DPA	2.5 H			0.8-1.8		% by wt	2.6	-
DHA	4.2			1.4-5.1		% by wt	4.4	-
OMEGA-6 TOTAL	35.4					% by wt	38.0	-
ARACHIDONIC ACID	10.4			8.6-15.6		% by wt	11.8	-
LINOLEIC ACID	22.7			18.6-29.5		% by wt	23.5	-

For details on reference ranges please refer to the reference range/comment section of the report.

Selected Current & Prior Labs

	11/28/22 4:33 AM	03/02/23 10:26 PM	06/14/23 9:25 AM	09/21/23 2:30 AM	12/01/23 8:17 AM
Cholesterol	141 mg/dL		164 mg/dL	172 mg/dL	147 mg/dL
Cholesterol in HDL	42 mg/dL		51 mg/dL	48 mg/dL	47 mg/dL
Triglycerides	77 mg/dL		114 mg/dL	85 mg/dL	99 mg/dL
LDL Cholesterol (Calculated)	83 mg/dL (calc)		92 mg/dL (calc)	● 106 mg/dL (calc)	81 mg/dL (calc)
Glucose					● 117 mg/dL
Creatinine					1.11 mg/dL
eGFR If Non-African American					
AST					19 U/L
ALT					26 U/L
Hemoglobin		● 19.9 g/dL	● 18.7 g/dL	● 18.7 g/dL	● 17.6 g/dL
Hematocrit		● 57.8 %	● 51.4 %	● 55.7 %	● 50.3 %
Platelets		200 Thousand/uL	167 Thousand/uL	178 Thousand/uL	196 Thousand/uL
HbA1c		5.6 % of total Hgb	5.6 % of total Hgb	5.5 % of total Hgb	● 5.8 % of total Hgb
Insulin			7.1 uIU/mL	9.0 uIU/mL	12.2 uIU/mL
TSH					0.96 mIU/L
Free T4					1.2 ng/dL
Free T3					● 4.4 pg/mL
Estradiol				● 45 pg/mL	<15 pg/mL
Testosterone		● 1874 ng/dL	● 211 ng/dL	● 1344 ng/dL	● 76 ng/dL
Testosterone free		● 535.4 pg/mL	● 36.2 pg/mL	● 341.4 pg/mL	● 13.0 pg/mL
Vitamin D, 25-Hydroxy		36 ng/mL	43 ng/mL		43 ng/mL
Homocysteine				● 11.7 umol/L	8.5 umol/L
PREGNENOLONE		43 ng/dL	● 19 ng/dL	● 12 ng/dL	● 16 ng/dL
Copper			90 mcg/dL		
Zinc			98 mcg/dL		99 mcg/dL

Medical Symptom Questionnaire

0 – *Never or almost never* have the symptom

1 – *Occasionally* have it, effect is *not severe*

2 – *Occasionally* have it, effect is *severe*

3 – *Frequently* have it, effect is *not severe*

4 – *Frequently* have it, effect is *severe*

HEAD

_____ Headaches
_____ Faintness
_____ Dizziness
_____ Insomnia
_____ 0 _____ Total

EYES

_____ Watery or itchy eyes
_____ Swollen, reddened or sticky eyelids
_____ Bags or dark circles under eyes
_____ Blurred or tunnel vision
_____ 0 _____ Total

(Does not include near or far-sightedness)

EARS

_____ 1 _____ Itchy ears
_____ 1 _____ Earaches, ear infections
_____ Drainage from ear
_____ Ringing in ears, hearing loss
_____ 2 _____ Total

NOSE

_____ 1 _____ Stuffy nose
_____ 1 _____ Sinus problems
_____ Hay fever
_____ Sneezing attacks
_____ Excessive mucus
_____ 2 _____ Total

MOUTH / THROAT

_____ Chronic coughing
_____ Gagging, frequent need to clear throat
_____ Sore throat, hoarseness, loss of voice
_____ Swollen or discolored tongue, gums, lips
_____ Canker sores
_____ 0 _____ Total

SKIN

_____ Acne
_____ Hives, rashes, dry skin
_____ 2 _____ Hair loss
_____ Flushing, hot flashes
_____ Excessive sweating
_____ 2 _____ Total

LUNGS

_____ Chest congestion
_____ Asthma, bronchitis
_____ Shortness of breath
_____ Difficulty breathing
_____ 0 _____ Total

JOINTS / MUSCLES

_____ Pain or aches in joints
_____ Arthritis
_____ 1 _____ Stiffness or limitation of movement
_____ 1 _____ Pain or aches in muscles
_____ Feeling of weakness or tiredness
_____ 2 _____ Total

DIGESTIVE TRACT

_____ Nausea, vomiting
_____ Diarrhea
_____ 1 _____ Constipation
_____ 1 _____ Bloating feeling
_____ 1 _____ Belching, passing gas
_____ Heartburn
_____ Intestinal / stomach pain
_____ 3 _____ Total

WEIGHT

_____ Binge eating/drinking
_____ Craving certain foods
_____ Excessive weight
_____ Compulsive eating
_____ Water retention
_____ Underweight
_____ 0 _____ Total

EMOTIONS

_____ Mood swings
_____ Anxiety, fear, nervousness
_____ Anger, irritability, aggressiveness
_____ Depression
_____ 0 _____ Total

ENERGY / ACTIVITY

_____ Fatigue, sluggishness
_____ Apathy, lethargy
_____ Hyperactivity
_____ Restlessness
_____ 0 _____ Total

MIND

_____ Poor memory
_____ Confusion, poor comprehension
_____ Poor concentration
_____ Poor physical coordination
_____ Difficulty in making decisions
_____ Stuttering or stammering
_____ Slurred speech
_____ Learning disabilities
_____ 0 _____ Total

OTHER

_____ Frequent illness
_____ Frequent or urgent urination
_____ Genital itch or discharge
_____ 0 _____ Total

_____ 11 _____ Grand Total 2023

_____ 17 _____ Grand Total 2022

Genetic Single Nucleotide Polymorphisms

Metabolism/Nutrition/ Diabetes/ Insulin resistance:

- ***PPM1K**: Slightly elevated circulating bcaas and risk for type 2 diabetes on high fat diet
- ***PGC-1 α** : Increase diabetes risk: exercise and fasting will increase expression and lower risk
- ***GCKR**: Lower fasting glucose and higher triglyceride levels, may have implications for dietary fat intake- with TT genotype- **you may be more responsive to exercise than medications.**
- ***HSPA1L**: This genotype, rs2227956(T;T), has been associated with susceptibility to noise-induced hearing loss.
Autophagy may play a role in alleviating NIHL
- ***CYP1A2**: Slower caffeine metabolism
- ***DRD2**: Lower food reward upon eating, may be prone to overeating or have difficulty with weight loss
- ***MCM6**: Lactose intolerance (lactase non-persistence) in adulthood, may benefit from a **low-calorie, high protein diet for fat loss**
- ***MC4R**: Slightly higher body mass index (bmi), possibly affecting dietary suitability- may benefit from mediteranean real foods diet- Normal risk for type 2 diabetes and coronary artery disease
- ***SLC30A8**: Slight increased risk for type 2 diabetes related to zinc transport, slight susceptibility to doms: zinc is a coenzyme involved in insulin storage and secretion- **assure adequate zinc.**
- ***IRS1**: Insulin receptor substrate 1 (IRS1) is a mediator involved in the insulin signaling pathway that is thought to be involved in glucose homeostasis: **sensitive to saturated fats- minimize saturated fats.**
- ***MTNR1B**: Impaired glucose tolerance with a late dinner time and early breakfast- increased risk for type-2 diabetes. This may be particularly important for prediabetic or diabetic individuals as well as those who consume a large portion of their daily food intake at the evening meal. The authors maintain that individuals with the (G;G) genotype who eat at night when melatonin levels are high, for example shift workers, may be at risk for metabolic disturbances.
- ***CRY2**: Cryptochrome circadian regulator 2 (CRY2) is one of the core proteins involved in the control of the circadian system. This genotype, rs11605924(A;A), has been associated with **increased fasting glucose levels related to higher fat diet.**
- ***CLTCL1**: Clathrin heavy chain 2 (CHC22) is a protein involved in clearing glucose from the bloodstream after a meal. **May be less tolerant of carbohydrates in the diet. Regular fasted exercise may improve glucose tolerance.**
- ***AGT**: Angiotensinogen (AGT) is a protein involved in the regulation of blood pressure and the body's fluid and electrolyte balance. Increased risk for hypertension and greater responsiveness to a low sodium diet.
- ***LPA**: Normal plasma lipoprotein(a) levels and a normal risk for coronary heart disease.
- ***ACE**: Normal sensitivity to saturated fat changes in blood pressure and glucose metabolism.
- ***TCF7L2**: Normal risk for type 2 diabetes
- ***UCP1**: Normal resting metabolic rate

Emotional/ wellbeing

- ***COMT**: Associated with being a nocebo responder- degrade dopamine quickly will likely notice side effects
- ***AKT1**: Increased risk of cannabis-associated psychosis

Genetic Single Nucleotide Polymorphisms

Micronutrients:

*vitamin D binding protein/CYP2R1: Genetic risk for vitamin d deficiency

***FUT2: lower b12 levels- monitor**

*FADS2:~26.7% poorer conversion of ala into omega-3 epa

***FADS1**: Associated with intermediate phosphatidylcholine levels- **assure dietary choline**.Slight increased inflammation in conjunction with a high linoleic acid (omega-6) diet.

***GSTP1: Supplemental vitamin e may be harmful**

*MTRR: No increased risk for hyperhomocysteinemia and normal choline metabolism

MTHFD1: Normal and not associated with increased risk of choline deficiency at adequate dietary choline intake levels

*MTHFR: normal folate metabolism

Obesity Risks:

***ADIPOQL**: Lower adiponectin levels and higher risk for obesity increased insulin resistance and risk of metabolic syndrome: **moderate exercise, monounsaturated fats** (olive oil, avocado, nuts) **and polyunsaturated fats (fatty fish), fiber, coffee and intermittent fasting decreases risk of obesity-** increases adiponectin.

*TAS2R38: Associated with the inability to taste bitter compounds and over eating

*PPAR gamma: Normal risk for obesity and type 2 diabetes in response to a diet high in saturated fat and low in mono- and polyunsaturated fats.

*TFAP2B: Normal risk for obesity and waist circumference, alters response to diet

*FTO: Normal risk of obesity

*ADRB3: Normal ability to lose weight

Lipids:

***LPA: Slightly elevated plasma lipoprotein(a) levels and slight increased risk for coronary artery disease that may be responsive to aspirin therapy**

*LIPC : Slightly higher hdl-c levels

*APOA1: Normal risk for metabolic syndrome and dyslipidemia

*LPL: Normal hdl-c and triglyceride levels

*HMGCR: normal response to a statin

*ABCG8: Normal levels of ldl cholesterol

Cancer Prevention:

***NPAS2: Circadian-associated increased prostate cancer risk-** 10% increase in calories consumed after 5 pm was associated with a 3% increase in the inflammatory biomarker CRP (c-reactive protein). **For each 3 hour increase in night-time fasting led to 20% lower risk of hgbA1c elevations. Studies have shown that consuming food earlier in the day and only during an 11 hour window can decrease prostate cancer risk by 36%.**

Genetic Single Nucleotide Polymorphisms

Longevity:

*TERC: shorter telomere length: sleep, real foods nutrition

*AKT1: May increase lifespan

*IL6: Associated with longer lifespan and increased risk of certain disease- 30% more likely to develop diabetes

*CFH: May increase lifespan; slightly lower risk of macular degeneration

*SIRT1: Increased lifespan and less mental decline with aging- check out lifespan book

*TAS2R16: Associated with longevity.

*SOD2: Superoxide dismutase 2 (SOD2) is a mitochondrial enzyme that plays an antioxidant role in protecting cells from oxidative damage. Reduced sod2 activity, may have diminished ability to combat oxidative stress, but may be associated with longevity.

Sleep:

*ADORA2A: Higher anxiety but lower sleep disruption with caffeine intake

***DEC2**: Basic helix-loophelix family member e41- **Associated with requiring at least 8 hours of sleep a night**

***MTNR1A : Increased risk for late onset alzheimer's disease**: Melatonin, which is secreted in high levels at night, decreases with age and is particularly low in Alzheimer's disease (AD) patients. Along with dementia, sleep disturbances and altered circadian rhythms are commonly observed in AD patient. **These studies would suggest that a lifestyle that does not disrupt the circadian rhythm would be beneficial to individuals with this polymorphism.** Furthermore, since individuals with this genotype may have fewer melatonin receptors thus increasing sensitivity to nighttime light, **avoiding blue light 3-5 hours before bedtime may help improve sleep latency and quality**

*ADA: Normal sleep depth and tolerance of sleep deprivation.

Athletic:

***VEGFA**: Slightly improved endurance capacity. Vascular endothelial growth factor A (VEGFA) is a cytokine involved in angiogenesis. Individuals with the G allele may see greater **benefits using resistance training and plyometrics** (such as jumping and skipping) which increase endurance in ways that are not related to increases in VO2 max. Increasing exercise intensity has been shown in other studies to improve training response in low responders

*ADRB2: Slightly increased endurance capacity

*HIF1A: Hypoxia-inducible factor-1 α . ability to preserve response to aerobic exercise with advancing age, more likely to be an endurance athlete.

*ACTN3: Enhanced fast-twitch muscle performance, more likely to favor sprint/power athletics, favors increased muscle mass- important in longevity

Memory:

***BDNF**: Individuals with the A allele, which is linked to lower BDNF levels important in memory as we age, may especially **benefit from robust, regular exercise**, a well-known activator of BDNF.

*APO3/3 normal alzheimers risk

Cognitive Testing & Plan

Patient Profile	Percentile Range				> 74	25 - 74	9 - 24	2 - 8	< 2
	Standard Score Range				> 109	90 - 109	80 - 89	70 - 79	< 70
Domain Scores	Patient Score	Standard Score	Percentile	VI**	Above	Average	Low Average	Low	Very Low
Neurocognition Index (NCI)	NA	106	66	Yes		X			
Composite Memory	100	104	61	Yes		X			
Verbal Memory	56	112	79	Yes	X				
Visual Memory	44	95	37	Yes		X			
Psychomotor Speed	174	101	53	Yes		X			
Reaction Time*	615	105	63	Yes		X			
Complex Attention*	3	111	77	Yes	X				
Cognitive Flexibility	53	111	77	Yes	X				
Processing Speed	62	110	75	Yes	X				
Executive Function	54	111	77	Yes	X				
Simple Attention	40	106	66	Yes		X			
Motor Speed	111	94	34	Yes		X			

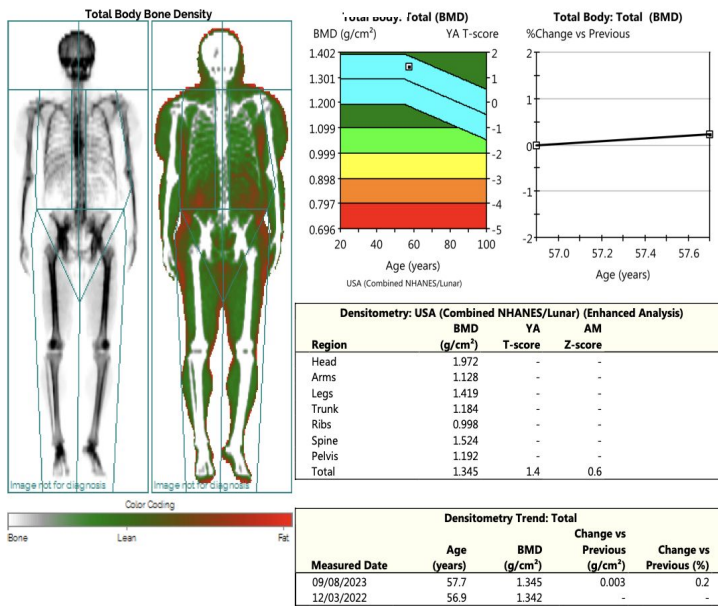
Domain Dashboard: Above average domain scores indicate a standard score (SS) greater than 109 or a Percentile Rank (PR) greater than 74, indicating a high functioning test subject. Average is a SS 90-109 or PR 25-74, indicating normal function. Low Average is a SS 80-89 or PR 9-24 indicating a slight deficit or impairment. Below Average is a SS 70-79 or PR 2-8, indicating a moderate level of deficit or impairment. Very Low is a SS less than 70 or a PR less than 2, indicating a deficit and impairment. Reaction times are in milliseconds. An * denotes that "lower is better", otherwise higher scores are better. Subject Scores are raw scores calculations generated from data values of the individual subtests.

VI** - Validity Indicator: Denotes a guideline for representing the possibility of an invalid test or domain score. "No" means a clinician should evaluate whether or not the test subject understood the test, put forth their best effort, or has a clinical condition requiring further evaluation.

Verbal Memory Test (VBM)	Score	Standard	Percentile	
Correct Hits - Immediate	15	118	88	Verbal Memory test: Subjects have to remember 15 words and recognize them in a field of 15 distractors. The test is repeated at the end of the battery. The VBM test measures how well a subject can recognize, remember, and retrieve words e.g. exploit or attend literal representations or attribute. "Correct Hits" refers to the number of target words recognized. Low scores indicate verbal memory impairment.
Correct Passes - Immediate	14	96	40	
Correct Hits - Delay	12	104	61	
Correct Passes - Delay	15	109	73	
Visual Memory Test (VSM)	Score	Standard	Percentile	
Correct Hits - Immediate	12	101	53	Visual Memory test: Subjects have to remember 15 geometric figures, and recognize them in a field of 15 distractors. The test is repeated at the end of the battery. The VSM test measures how well a subject can recognize, remember, and retrieve geometric figures e.g. exploit or attend symbolic or spatial representations. "Correct Hits" refers to the number of target figures recognized. Low scores indicate visual memory impairment.
Correct Passes - Immediate	14	117	87	
Correct Hits - Delay	10	94	34	
Correct Passes - Delay	8	81	10	
Finger Tapping Test (FTT)	Score	Standard	Percentile	
Right Taps Average	53	89	23	The FTT is a test of motor speed and fine motor control ability. There are three rounds of tapping with each hand. The FTT test measures the speed and the number of finger-taps with each hand. Low scores indicate motor slowing. Speed of manual motor activity varies with handedness. Most people are faster with their preferred hand but not always.
Left Taps Average	58	101	53	
Symbol Digit Coding (SDC)	Score	Standard	Percentile	
Correct Responses	63	110	75	The SDC test measures speed of processing and draw upon several cognitive processes simultaneously, such as visual scanning, visual perception, visual memory, and motor functions. Errors may be due to impulsive responding, misperception, or confusion.
Errors*	1	100	50	

Stroop Test (ST)	Score	Standard	Percentile	
Simple Reaction Time*	241	109	73	The ST measures simple and complex reaction time, inhibition / disinhibition, mental flexibility or directed attention. The ST helps assess how well a subject is able to adapt to rapidly changing and increasingly complex set of directions. Prolonged reaction times indicate cognitive slowing / impairment. Errors may be due to impulsive responding, misperception, or confusion.
Complex Reaction Time Correct*	549	108	70	
Stroop Reaction Time Correct*	681	101	53	
Stroop Commission Errors*	1	99	47	
Shifting Attention Test (SAT)	Score	Standard	Percentile	
Correct Responses	56	109	73	The SAT measures executive function or how well a subject recognizes set shifting (mental flexibility) and abstraction (rules, categories) and manages multiple tasks simultaneously. Subjects have to adjust their responses to randomly changing rules. The best scores are high correct responses, few errors and a short reaction time. Normal subjects may be slow but accurate, or fast but not so accurate. Attention deficit may be apparent.
Errors*	2	111	77	
Correct Reaction Time*	1006	109	73	
Continuous Performance Test (CPT)	Score	Standard	Percentile	
Correct Responses	40	104	61	The CPT measures sustained attention or vigilance and choice reaction time. Most normal subjects obtain near-perfect scores on this test. A long response time may suggest cognitive slowing and/or impairment. More than 2 errors (total) may be clinically significant. More than 4 errors (total) indicate attentional dysfunction.
Omission Errors*	0	104	61	
Commission Errors*	0	106	66	
Choice Reaction Time Correct*	402	102	55	

Bone & Lean Mass Testing & Plan



BODY COMPOSITION: Total Body (Enhanced Analysis)

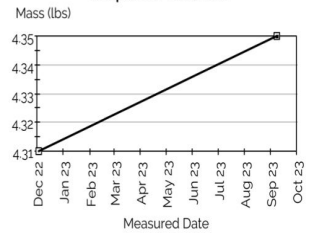
Region	Body Fat (%)	Fat (lbs)	Lean (lbs)	BMC (lbs)	Total Mass (lbs)
Arms	15.5	3.7	19.1	0.9	23.6
Arm Right	15.0	2.1	11.2	0.5	13.7
Arm Left	16.1	1.6	7.9	0.4	9.9
Arms Diff.	-1.0	0.5	3.3	0.1	3.9
Legs	17.1	11.1	51.4	2.4	64.8
Leg Right	17.5	5.8	26.0	1.2	33.0
Leg Left	16.6	5.3	25.3	1.2	31.8
Legs Diff.	0.9	0.5	0.7	0.0	1.3
Trunk	29.0	33.8	80.4	2.5	116.8
Trunk Right	28.9	16.1	38.3	1.2	55.7
Trunk Left	29.0	17.7	42.1	1.3	61.1
Trunk Diff.	0.0	-1.6	-3.8	0.0	-5.3
Android	33.0	6.1	12.3	0.1	18.6
Gynoid	20.6	6.7	25.0	0.7	32.3
Total	23.4	51.6	161.9	7.0	220.5
Total Right	23.1	25.6	81.5	3.6	110.7
Total Left	23.7	26.0	80.4	3.4	109.8
Total Diff.	-0.6	-0.5	1.1	0.2	0.9



The Android region is that of the abdomen, and often the body type with increased fat in this area is described as "apple shaped." The Gynoid region is that around the hips and thighs and often the body type with increased fat in this area is described as "pear shaped." Understanding where fat is stored on the body is recognized as an important predictor of the potential health risks of obesity.

CoreScan estimates the VAT (Visceral Adipose Tissue) content within the android region, VAT is a specific type of fat that is associated with several types of metabolic diseases such as obesity, metabolic syndrome, and type 2 diabetes. CoreScan results have been validated for adults between ages 18-90, and with a BMI in the range of 18.5-40.

Composition Trend: VAT



Android/Gynoid Ratio

Measure Date	Android Body Fat %	Gynoid Body Fat %	A/G Ratio
09/08/2023	33.0%	20.6%	1.58
12/03/2022	35.3%	21.9%	1.59

Estimated Visceral Adipose Tissue

Measure Date	Android Fat Mass (lbs)	Visceral Fat Mass (lbs)
09/08/2023	6.1	4.35
12/03/2022	6.4	4.31

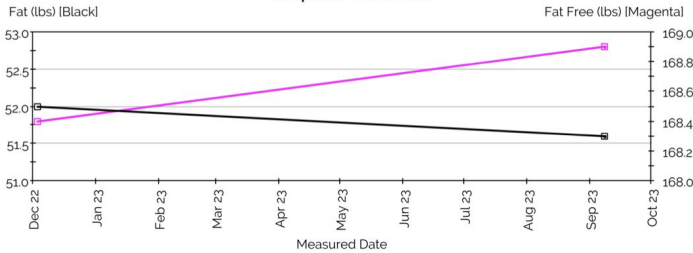
DexaFit Summary Analysis Page

Summary - Total Body Composition Analysis

The total body composition table summarizes the metrics of your entire body and displays your Total Body Fat %, Total Mass (lbs), Fat Tissue (lbs), Lean Tissue (lbs), Bone Mineral Content (BMC), and Visceral Fat (lbs).

Measured Date	Total Body Fat %	Total Mass	Fat Tissue	Lean Tissue	BMC	Visceral Fat
09/08/2023	23.4%	220.5 lbs	51.6 lbs	161.9 lbs	7.0 lbs	4.35 lbs
12/03/2022	23.6%	220.4 lbs	52.0 lbs	161.5 lbs	6.9 lbs	4.31 lbs

Composition Trend: Total



Lean Mass Balance

Lean mass balance is a comparison of your body's right to left lean mass symmetry. A lean mass difference close to zero indicates a balance of muscle. An injury, non-symmetrical training, or a health condition may cause disproportionate lean mass differences, but only your physician can determine if a health condition is the related cause.

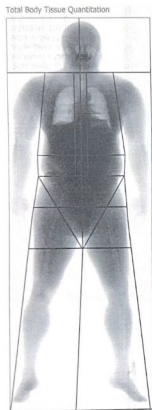
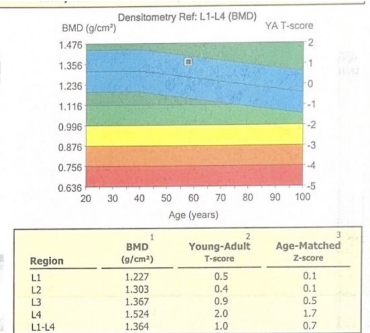
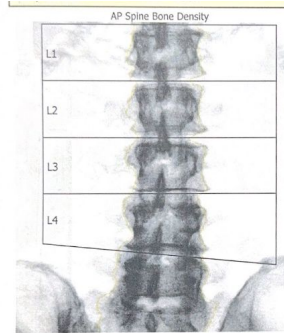
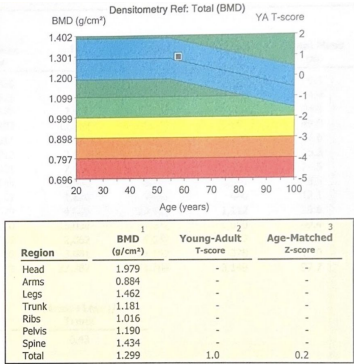
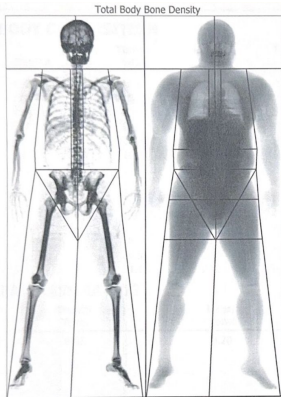
Region	Measured Date	Lean Mass Right	Lean Mass Left	Lean Mass Difference
Arms:	09/08/2023	11.2 lbs	7.9 lbs	3.3 lbs
	12/03/2022	11.8 lbs	10.9 lbs	1.0 lbs
Legs:	09/08/2023	26.0 lbs	25.3 lbs	0.7 lbs
	12/03/2022	26.9 lbs	25.3 lbs	1.6 lbs
Total:	09/08/2023	81.5 lbs	80.4 lbs	1.1 lbs
	12/03/2022	80.0 lbs	81.4 lbs	-1.4 lbs

Region	Measured Date	Age	Body Fat %	%Change vs. Previous	%Change vs. Baseline
Arms:	09/08/2023	57.7	15.5	-0.9	-0.9
	12/03/2022		16.4	-	baseline
Legs:	09/08/2023		17.1	-0.2	-0.2
	12/03/2022		17.3	-	baseline
Trunk:	09/08/2023		29.0	-0.6	-0.6
	12/03/2022		29.6	-	baseline
Android:	09/08/2023		33.0	-2.3	-2.3
	12/03/2022		35.3	-	baseline
Gynoid:	09/08/2023		20.6	-1.3	-1.3
	12/03/2022		21.9	-	baseline
Total:	09/08/2023		23.4	-0.2	-0.2
	12/03/2022		23.6	-	baseline

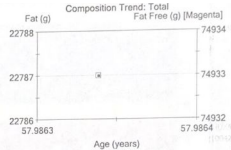
Body Composition History

Measured Date	Total Mass (lbs)	Change vs. Previous (lbs)		Change vs. Baseline (lbs)		Change vs. Previous (lbs)			
		Baseline	Previous	Baseline	Previous	Baseline	Previous		
09/08/2023	220.5	0.1	0.1	51.6	-0.4	-0.4	161.9	0.4	0.4
12/03/2022	220.4	baseline	-	52.0	baseline	-	161.5	baseline	-

USC Clinical Exercise Research Center



Reference Chart: No reference data for Total Body (Total) region. USA (Combined NHANES/Lamar) Reference Population did not support the patient's ethnicity for Total Body Composition.

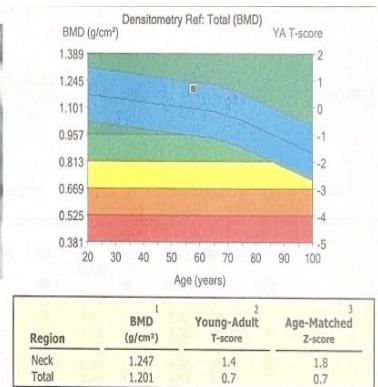
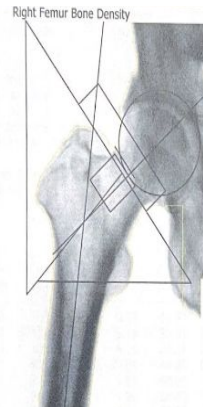


Trend: Total

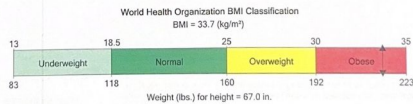
Measured Date	Age (years)	Tissue (%Fat)	Centile	Total Mass (kg)	Region (%Fat)	Tissue (g)	Fat (g)	Lean (g)	BMC (g)	Fat Free (g)
12/13/2023	57.9	24.1	-	97.7	23.3	94,572	22,787	71,784	3,149	74,933

Trend: Fat Distribution

Measured Date	Age (years)	Android (%Fat)	Gynoid (%Fat)	A/G Ratio	Total Body (%Fat)
12/13/2023	57.9	36.0	20.5	1.76	24.1



COMMENTS:



BODY COMPOSITION

Region	Tissue (%Fat)	Region (%Fat)	Tissue (g)	Fat (g)	Lean (g)	BMC (g)	Total Mass (kg)
Left Arm	16.0	15.4	5,850	935	4,915	220	6.1
Left Leg	15.7	15.1	13,816	2,167	11,649	548	14.4
Left Trunk	30.9	30.3	24,378	7,527	16,852	482	24.9
Left Total	24.0	23.2	47,402	11,367	36,035	1,558	49.0
Right Arm	15.2	14.7	5,811	885	4,926	220	6.0
Right Leg	16.6	16.0	14,712	2,439	12,274	564	15.3
Right Trunk	31.4	30.7	23,931	7,512	16,419	568	24.5
Right Total	24.2	23.4	47,169	11,420	35,749	1,591	48.8
Arms	15.6	15.0	11,661	1,820	9,841	440	12.1
Legs	16.1	15.5	28,529	4,606	23,922	1,112	29.6
Trunk	31.1	30.5	48,310	15,038	33,271	1,050	49.4
Android	36.0	35.8	7,949	2,862	5,087	57	8.0
Gynoid	20.5	20.0	14,648	3,001	11,647	328	15.0
Total	24.1	23.3	94,572	22,787	71,784	3,149	97.7

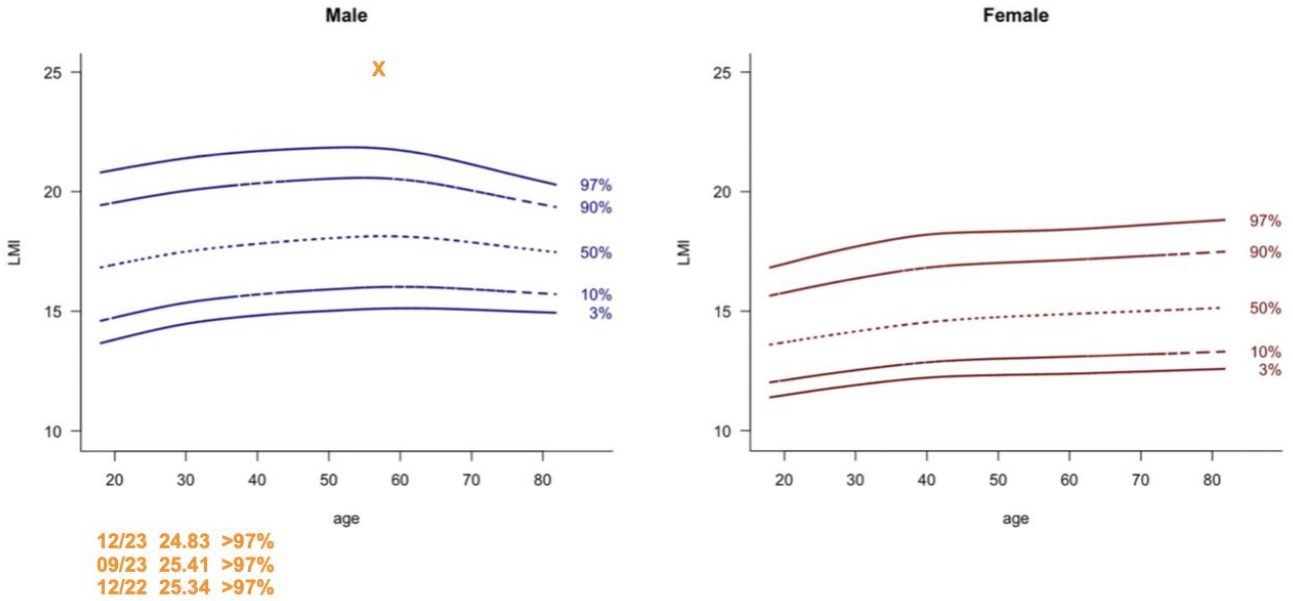
FAT MASS RATIOS

Trunk/Total	Legs/Total	(Arms+Legs)/Trunk
0.66	0.20	0.43

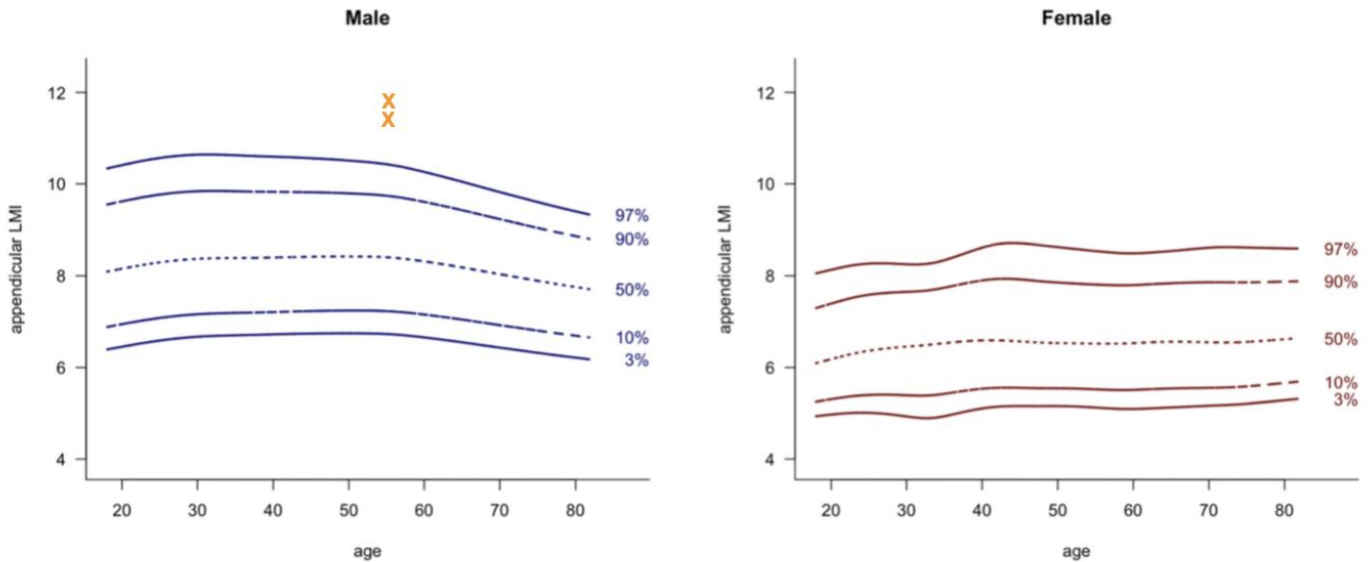
LEAD Cohort Data

From: [Reference values of body composition parameters and visceral adipose tissue \(VAT\) by DXA in adults aged 18–81 years—results from the LEAD cohort](#)

Lean mass/height² (kg/m²) vs. age



Appendicular lean mass/height² (kg/m²) vs. age

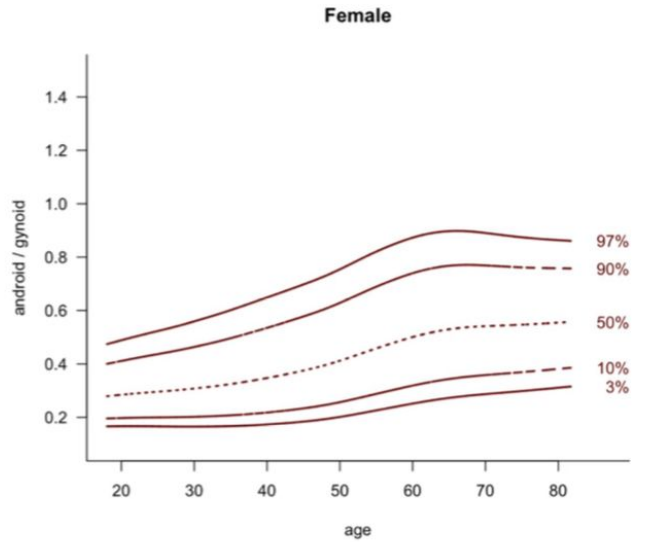
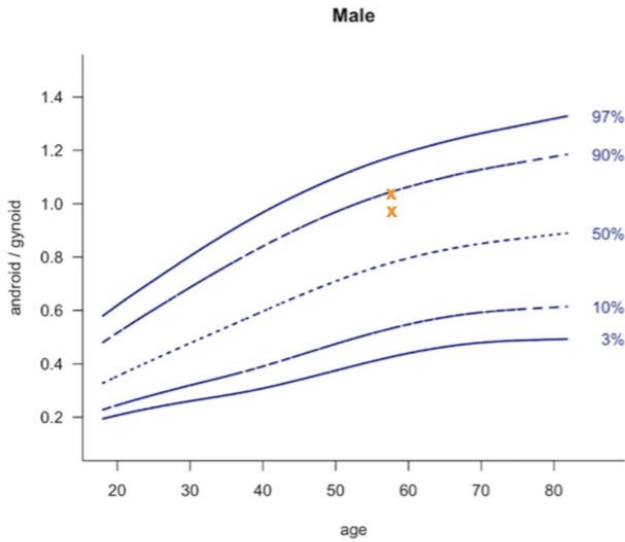


Lines indicate 3rd, 10th, 50th, 90th, and 97th percentile. Age in years, LMI and appendicular LMI in kg/m².

12/23 11.68 >97%
09/23 11 >97%
12/22 11.76 >97%

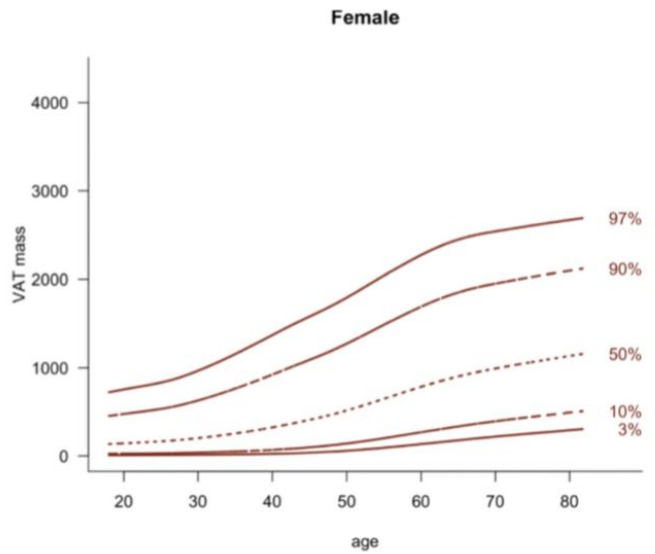
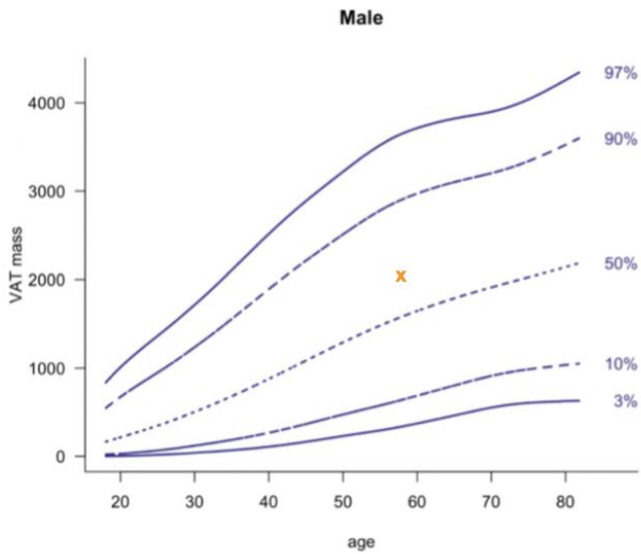
LEAD Cohort Data

Fat mass ratio android/gynoid (kg) vs. age



12/23 .95 90%
 09/23 .91 90%
 12/22 .88 80%

Visceral adipose tissue mass (g) vs. age



Lines indicate 3rd, 10th, 50th, 90th, and 97th percentile. Age in years, VAT mass in g.

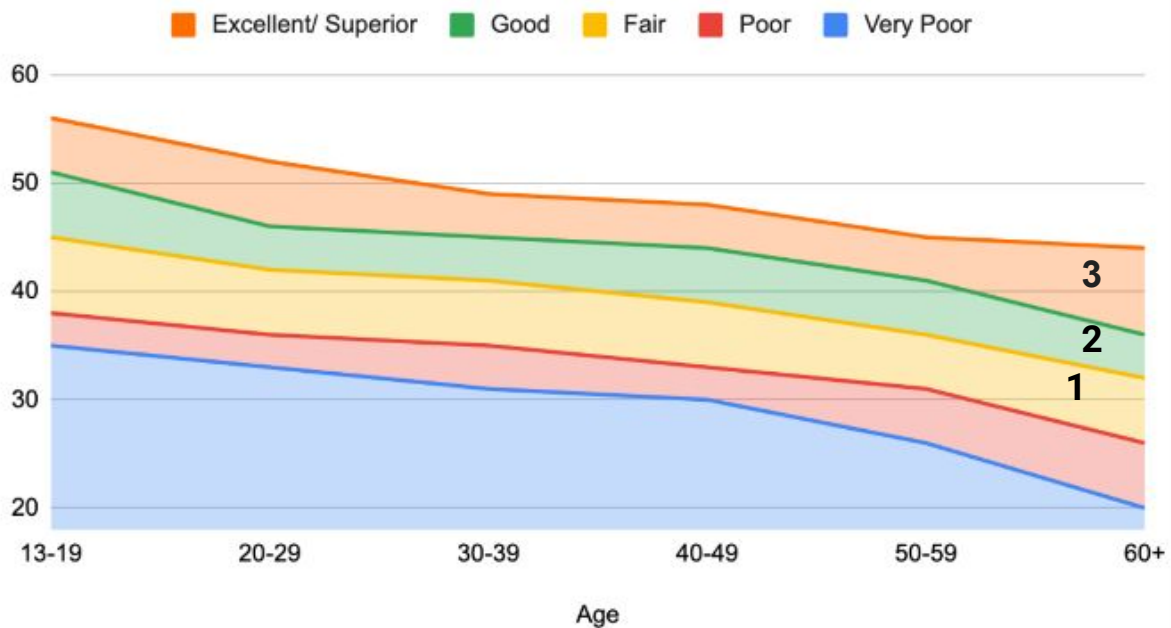
12/23 n/a
 09/23 4.35 lb 65%
 12/22 4.31 lb 65%

Lifestyle Rx: Movement

How do we measure fitness?

The single best metric for evaluating fitness is the VO2 max test. Though in some individuals we will use a treadmill EKG test to begin. This is a test with an exercise physiologist using a mask that measures oxygen consumption and CO2 consumption.

Men's Vo2 Max Distribution



Your January 2023 VO2 max was 31.7. From January to September you increased your VO2max to 36.1. **Your most recent VO2 max from December 2023 is 42.** This is a significant improvement as we have a goal of at least 40 for men your age.

To improve upon this we would suggest that you begin a periodized training plan.

By improving your VO2 max we expect healthspan benefits.

Lifestyle Rx: Movement

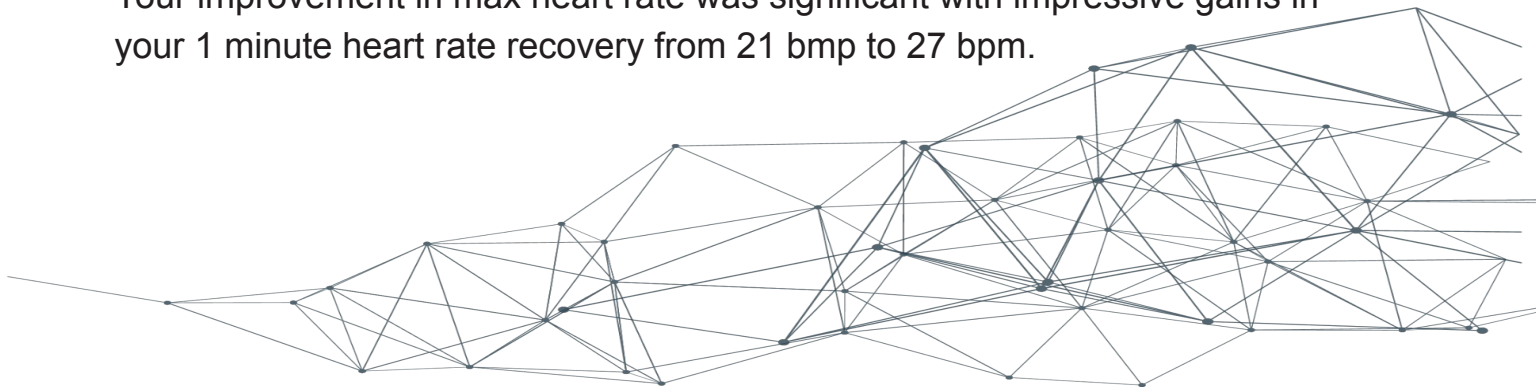
<u>Your Current Max HR</u> 163	<u>Your Current 1 Minute Recovery HR</u> 136	<u>Your Current 2 Minute Recovery HR</u> 119
<u>Your Prior Max HR</u> 149	<u>Your Prior 1 Minute Recovery HR</u> 128	<u>Your Prior 2 Minute Recovery HR</u> 120

Heart rate recovery (HRR) is a measure of how quickly your heart rate goes down after intense exercise, usually measured at one-, two-, or three- minutes. A heart rate recovery of 15-20 beats per minute after one minute of rest was considered about average for heart health and anything faster than that was considered to be good heart health.

Heart rate recovery time is a result of how fast your autonomic nervous system can “shift gears” from sympathetic activation to parasympathetic. When this happens quickly, it is an indication that your nervous system is balanced and “running on all cylinders.” It is also a sign that your body is well conditioned to adapt to its environment and perform at its best.

Additionally, studies have also found that heart rate recovery correlates with your overall cardiovascular health, and that poor HRR is associated with increased risk of cardiac events and mortality.

Your improvement in max heart rate was significant with impressive gains in your 1 minute heart rate recovery from 21 bmp to 27 bpm.



Lifestyle Rx: Movement

Your Current
Max Mets

12

Your Prior
Max Mets

9.05

METS: A MET is a ratio of your working metabolic rate relative to your resting metabolic rate. Metabolic rate is the rate of energy expended per unit of time. It's one way to describe the intensity of an exercise or activity.

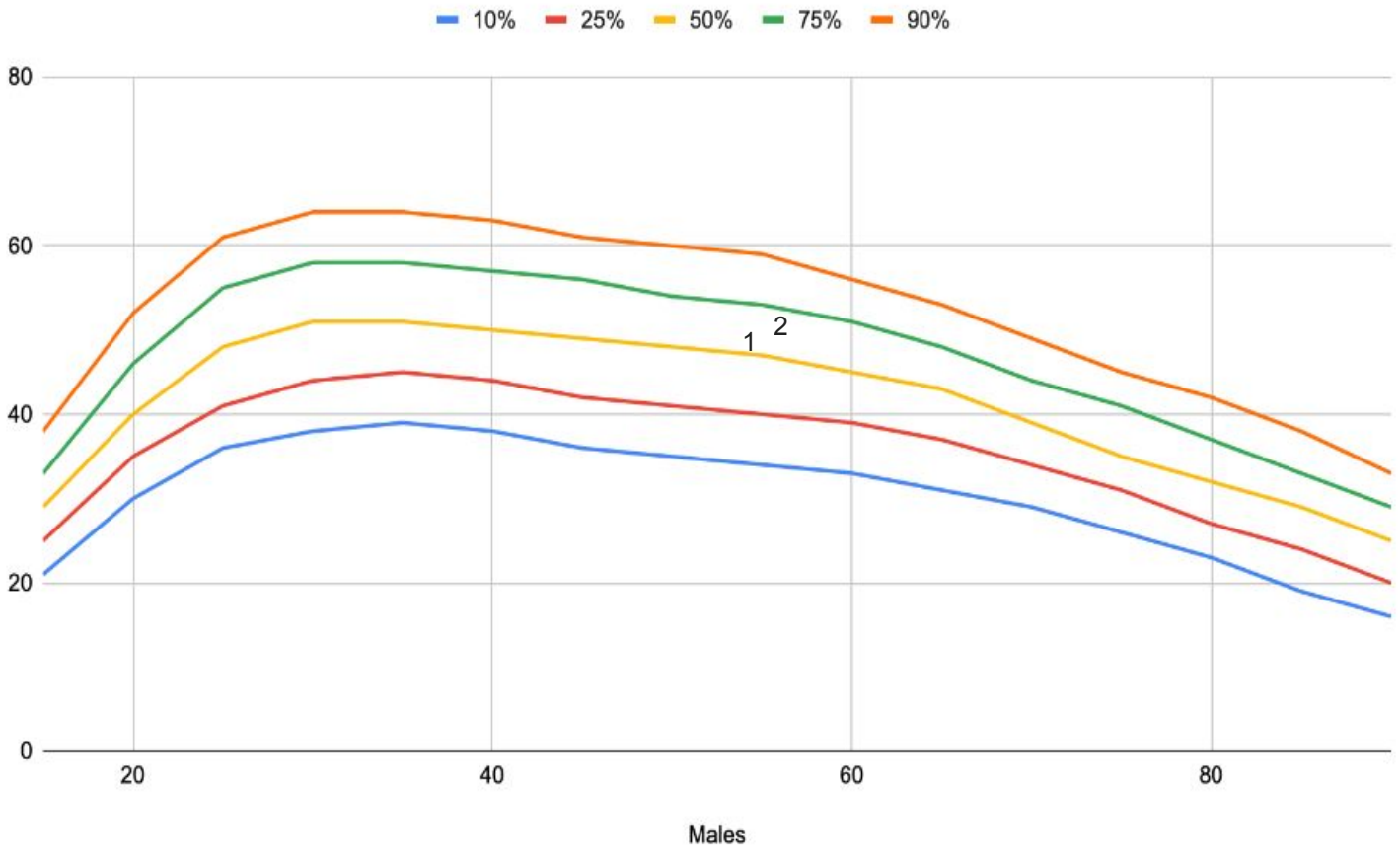
One MET is the energy you spend sitting at rest — your resting or basal metabolic rate. So, an activity with a MET value of 4 means you're exerting four times the energy than you would if you were sitting still. The cells in your muscles use oxygen to help create the energy needed to move your muscles.

A peak capacity of less than 5 METS is considered poor,
5–8 METS is fair,
9–11 METS is good,
12 METS or more is excellent.

Patients who attain >10 METS enjoy an excellent prognosis regardless of the test result even in the presence of known CAD, with a 5-year survival of 95%.

Lifestyle Rx: Movement

Male Grip Strength %



Your grip strength improved from slightly above the 50% to approximately the 60% for men. Grip strength has been found to be an important predictor of vitality and an early indicator of decline. This is an impressive gain.

Lifestyle Rx: Movement

Your current activity:

Zone 2: 2 hours weekly

Mobility, Flexibility & Strength: 3 hours weekly

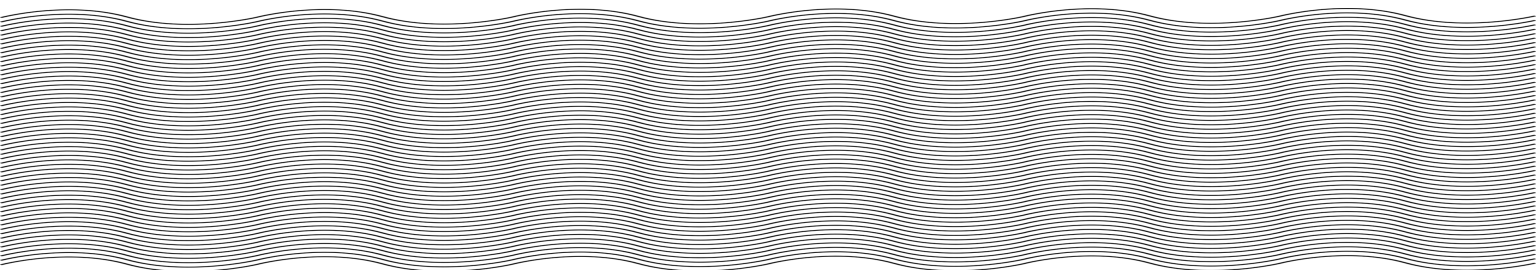
High Intensity Cardio: 2 sessions weekly

Your activity Rx:

Zone 2: 3 hours weekly

Mobility, Flexibility & Strength: 3 hours weekly

High Intensity Cardio: 2 sessions weekly



Lifestyle Rx: Sleep

Past 6 months Jul 23 - Jan 20

Bedtime

12:03am

6-month average

Wakeup

8:21am

6-month average



● Weekly avg bedtime and wakeup

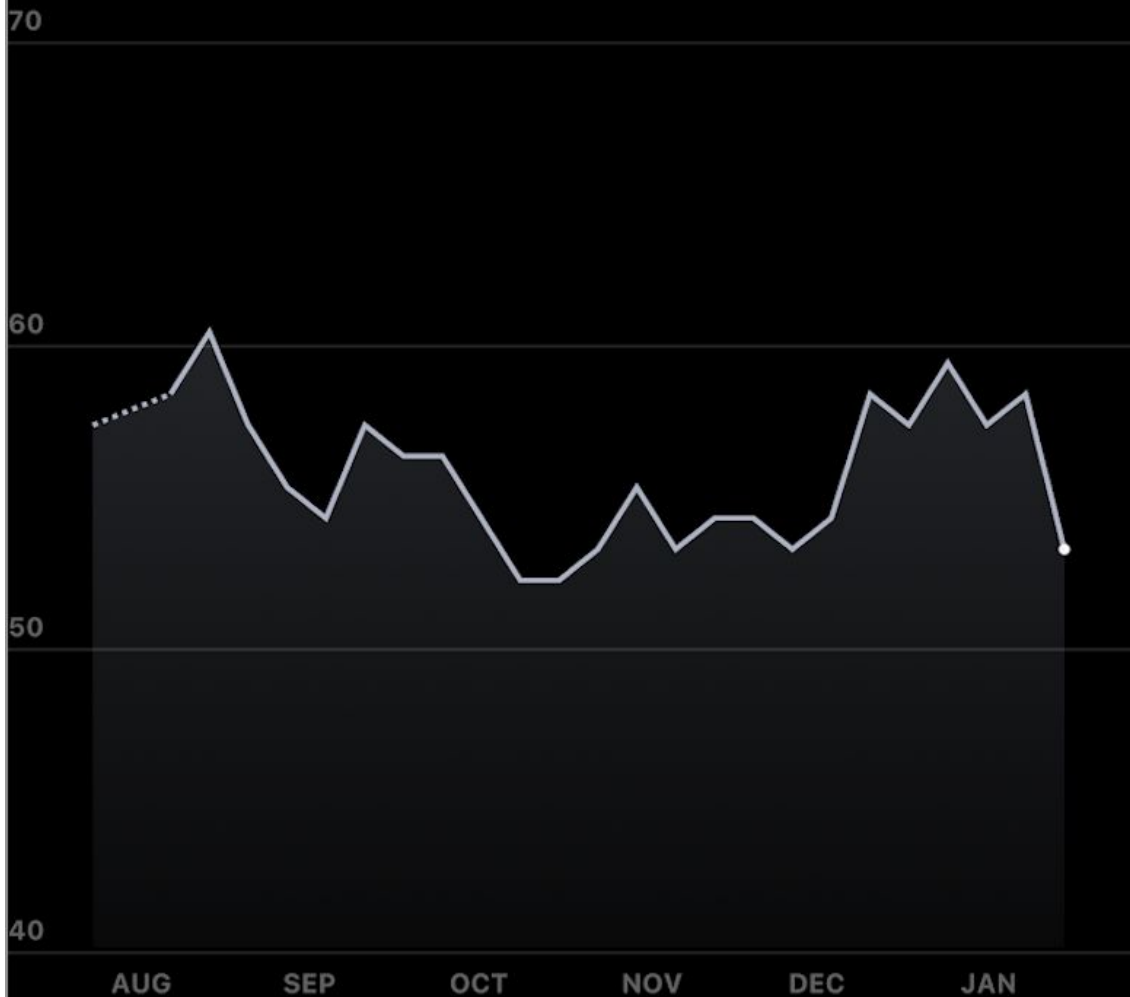
Lifestyle Rx: Sleep

Past 6 months Jul 23 - Jan 20

Resting heart rate

55 bpm

6-month average



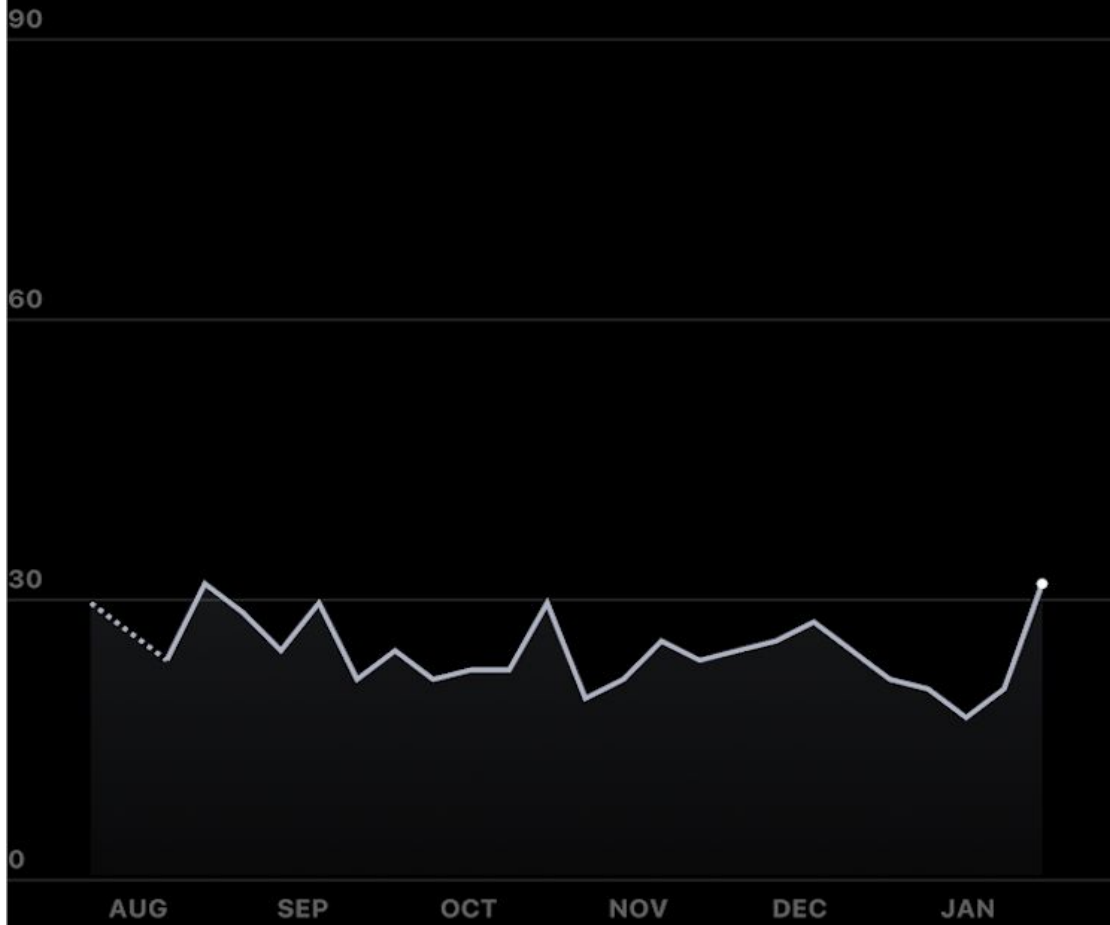
Lifestyle Rx: Sleep

Past 6 months Jul 23 - Jan 20

Heart rate variability

24 ms

6-month average



Lifestyle Rx: Sleep

Your sleep Rx:

Dark, cold (65 degrees), quiet room

Low lights 1-2 hours before bed, no computer 2 hours before bed

Early dinner

Avoid alcohol several hours before bed

Sauna or warm bath before bed

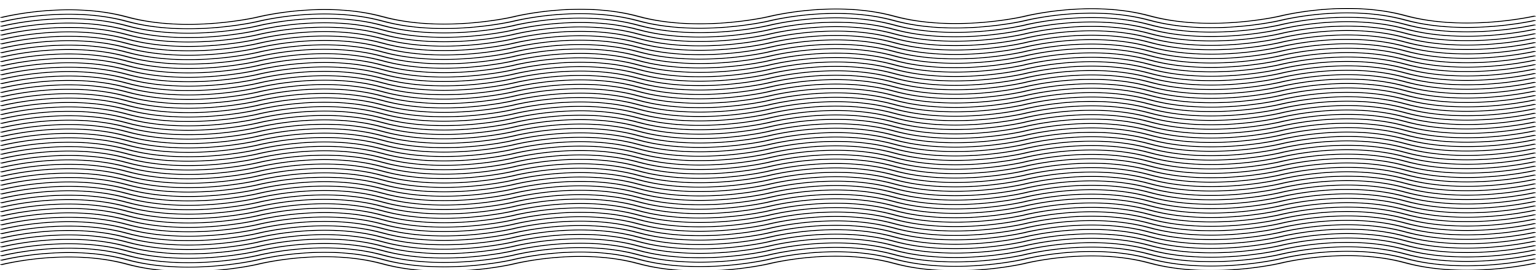
Light early in day, sunglasses after 4:30pm

Hormone management

Sleep pillars

1. Regularity: early activity; consistent sleep time
2. Continuity
3. Quantity
4. Quality: deep, light and REM

Pharmacologic: May use trazadone as needed



Lifestyle Rx: Nutrition

AGP Report

December 6, 2023 - December 19, 2023 (14 Days)

LibreView

GLUCOSE STATISTICS AND TARGETS

December 6, 2023 - December 19, 2023 **14 Days**

Time CGM Active: **37%**

Ranges And Targets For		Type 1 or Type 2 Diabetes
Glucose Ranges		Targets % of Readings (Time/Day)
Target Range 70-180 mg/dL		Greater than 70% (16h 48min)
Below 70 mg/dL		Less than 4% (58min)
Below 54 mg/dL		Less than 1% (14min)
Above 180 mg/dL		Less than 25% (6h)
Above 250 mg/dL		Less than 5% (1h 12min)
Each 5% increase in time in range (70-180 mg/dL) is clinically beneficial.		

Average Glucose **127** mg/dL

Glucose Management Indicator (GMI) **6.3%**

Glucose Variability **14.8%**

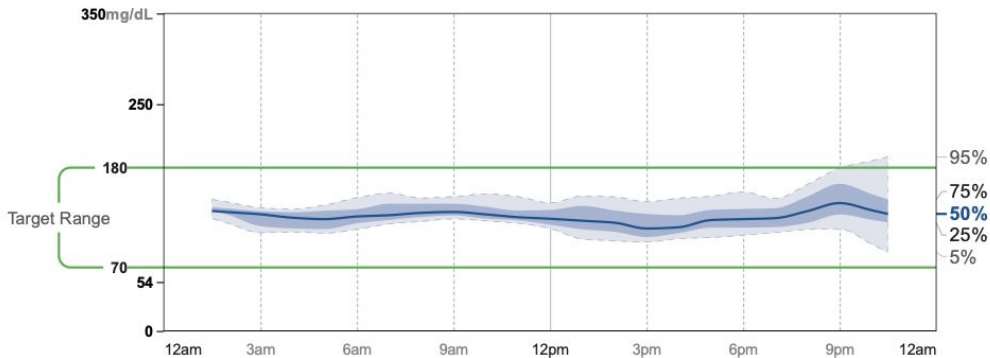
Defined as percent coefficient of variation (%CV); target ≤36%

TIME IN RANGES



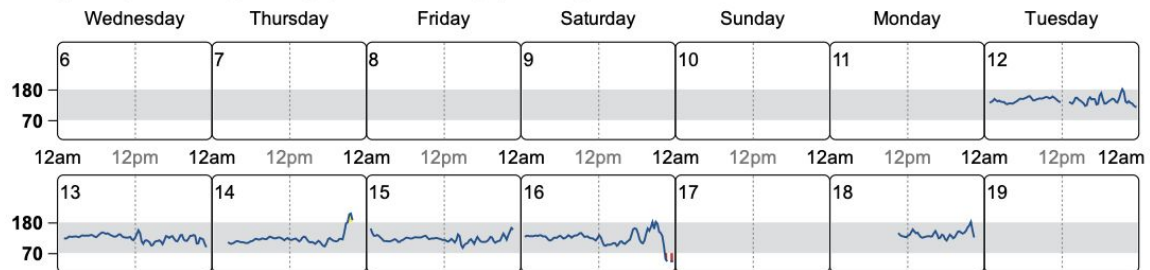
AMBULATORY GLUCOSE PROFILE (AGP)

AGP is a summary of glucose values from the report period, with median (50%) and other percentiles shown as if occurring in a single day.



DAILY GLUCOSE PROFILES

Each daily profile represents a midnight to midnight period with the date displayed in the upper left corner.



Source: Battelino, Tadej, et al. "Clinical Targets for Continuous Glucose Monitoring Data Interpretation: Recommendations From the International Consensus on Time in Range." Diabetes Care, American Diabetes Association, 7 June 2019, <https://doi.org/10.2337/dci19-0028>.

We have been using continuous glucose monitoring. Your average glucose is 127 according to the ADA your estimated A1c would be 6.1. This is in a prediabetic level and higher than ideal.

Lifestyle Rx: Nutrition

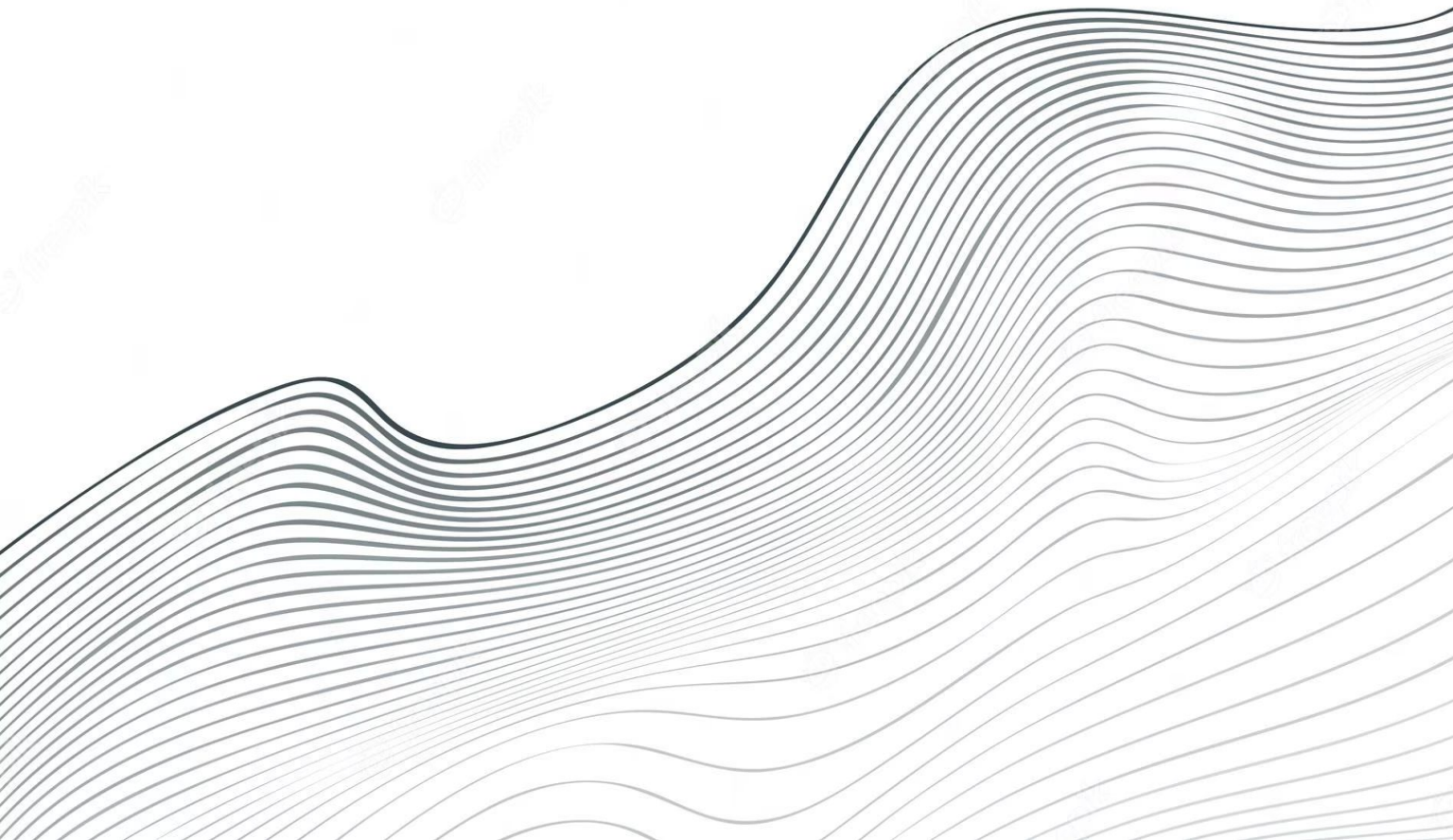
Dietary daily goals:

Sugar < 20g/day

Fiber 35 g/ day

Protein 1.8-2.0 g/kg/ day 160-180 g/ day

12-14 hour overnight fast, avoiding food 3 hours prior to bedtime



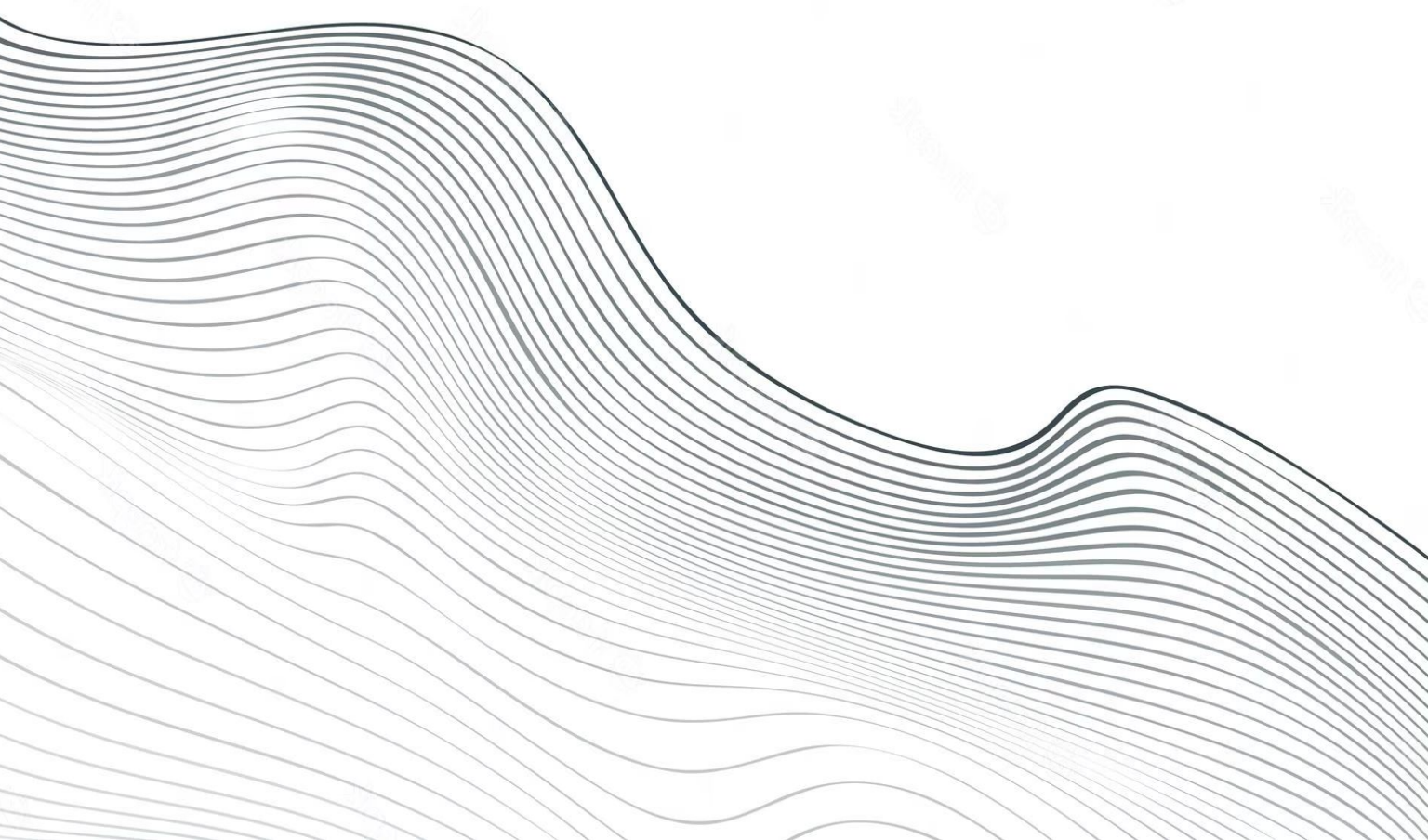
Lifestyle Rx: Emotional Health

The **GAD 7 score** is a screening tool for generalized anxiety.
Your **GAD 7 score on 12/04/2023 was 0.**

The **PHQ 9** is a screening tool for depression.
Your **PHQ 9 score on 12/04/2023 was 0.**

Lifestyle approaches to mild depression include:

1. Regular exercise
2. A mindfulness program
3. Regular sleep
4. Light exposure early in the day
5. Minimizing sugars and assuring 800mg+ EPA daily



Medical Concerns & Treatments

Diabetes:

Non-pharmacologic: Diet, sleep, exercise

Pharmacologic: Metformin, Libre CGM, may consider Mounjaro

High Cholesterol:

Non-pharmacologic: Diet, sleep, exercise, omega 3.

Pharmacologic: Simvastatin

Low T:

Non-pharmacologic: Supplementing Zinc, resistance training

Pharmacologic: Testosterone cream

HTN:

Non-pharmacologic: Diet, sleep, exercise, BP log daily

Pharmacologic: Telmisartan & Amlodipene

Sleep Apnea:

Non-pharmacologic: Diet and exercise

Pharmacologic: CPAP

Occasional GERD:

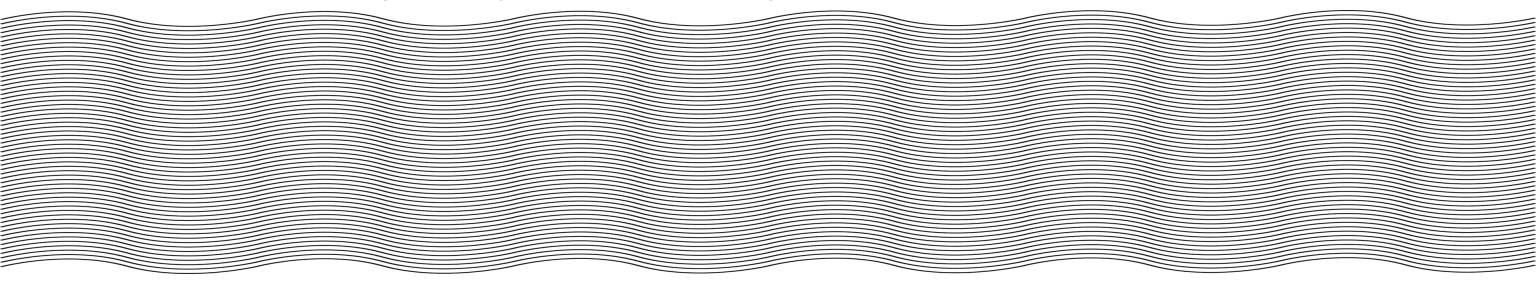
Non-pharmacologic: Avoid large, fatty, spice, late meals

Pharmacologic: Prilosec as needed

Elevated Visceral Adipose Tissue (VAT) and A/G ratio:

Non-pharmacologic: Diet, sleep, exercise

Pharmacologic: May consider Mounjaro



Prevention: US Preventative Task Force & More

Providers:

Endo: XXXXX, X

Sleep: XXXXXX, X

Optometrist: XXXXXX, X

Derm: XX, X

GI: XXXXXX, X

Orthopedist: XXXXX, X; XXXXXXXX, X

Vaccines: Covid x4 last 1/23, DTaP 12/23, Shingles 2023, **Flu & Covid Suggested**

Annual skin check: 12/22, 12/23 Recommended

Eye pressures check: 12/2023

Lung Cancer screening: per prenuvo

Hep C testing (once per lifetime): negative 12/23

Colorectal Cancer Screening: Colonoscopy 2016 (No polyps) 10 yr f/u
Cologuard 12/23 nl

Prostate Cancer Screening: Penuvo 2021 and PSA (0.65 12/23)

Cardiac Screening:

EKG: 1/23 NSR

EKG Stress Test 12/23: no ischemia, max mets 15.3

CAC: (2021) 3

DXA: 09/2023 FFMI 100%, ALMI 100%, AG 80%, VAT 70% -sm chng.

Grail 10/23 Negative

Whole Body MRI 9/21- to repeat

1. Indeterminate 3.5 mm extramedullary intradural nodular focus in the left posterior thecal sac at the T11-12 level, indeterminant for a space-occupying lesion versus partial volume averaging artifact. Recommend contrast-enhanced MRI spine to reassess. Otherwise, no worrisome restricted mass identified within the body. - follow up MRI normal
2. Mild scattered subcortical white matter hyperintensities. While nonspecific, considerations include chronic small vessel ischemia, complication of chronic migraines, sequelae of old trauma.
3. Mild hepatic steatosis.
4. Small benign adrenal adenomas.



Lifestyle Action Items

Exercise:

Mobility training, body work

HIIT for VO2 max improvements 1-2 sessions / wk

Zone 2 120-130 BPM 3- 4 hours/ wk

Resistance: Higher weight, lower reps 2-3 hours/ wk

Balance training and core 5-10 m/ day

Nutrition:

Sugar <20g/day

Fiber 35 g/ day

Protein 1.8g/kg/ day ~ 160g/ day

12-14 hour overnight fast

Emotional health:

Daily mindfulness

Regular sleep

Light exposure early in the day

Minimizing sugars and assuring 800mg+ EPA daily

Connection: finding ways to connect with friends and family

Action Items

Supplements to Start:

Pregnenalone 100mg daily in AM and PM

Prevention:

Vaccines: flu vaccine, covid

Daily blood pressure after meditation or after resting for 10 minutes

Imaging:

CT Coronary Artery Screening

Whole Body MRI repeat

Medications:

Increase testosterone to 3 clicks daily

Goals:

Review short and long term stated goals

Exercise:

Zone 2 3-4 hours / wk

