



Optimizing Labs

Below is a list of optimal lab values for the labs that Dr Kruse recommends based on your health history. Your results may vary depending on your own n=1. You can review a complete list of optimizing labs on Dr. Kruse's blog: [What are the Optimizing Labs?](#)

ASI	Normal total cortisol with correct diurnal pattern over normal DHEA level
Glucose	88 or below This should be a fasting glucose reading, meaning you didn't have anything to eat or drink 12 hours before the test
A1C	Below 5.0
DHT	Top quartile
Triglycerides	Below 75
HDL	60+
Telomeres	Length shouldn't be higher than biologic age
VO2 Max	

Classes of Mitochondrial Fitness: Find your class by testing your initial VO2 max and plugging in your Epi-paleo Rx exercise routine.

< 20 ml/kg/min	You should walk 15 min 5-7 days per only
< 20-25 ml/kg/min	You should perform 15 minutes of aerobic work 5-7 days a week with one anaerobic interval An anaerobic interval = 0-5 sec
< 25-30 ml/kg/min	You should perform 20 minutes of aerobic activity with 2 anaerobic Intervals 4-5 times a week. An Interval = 5-15 sec
< 30-35 ml/kg/min	You should perform 20 min of HIIT with 4 Intervals 4 times per week where each anaerobic Interval is 5-15 sec.
< 35-40 ml/kg/min	You should perform 20 minutes of HIIT 3 times a week with 4 Intervals where each Interval is 15-30 sec , where recovery is 3-5 sec. You can also add 30 minutes of steady state cardio (sprints) once a week
<40-45 ml/kg/min	You should perform 20 minutes of HIIT 3 times a week with 5+ Intervals 3 days a week. Intervals can be >30 sec. Recovery can be 1-2 minutes.
45+ ml/kg/min	You should perform 20 min of HIIT with 6 Intervals 3 days a week. The Interval is >45 sec and your recovery must be less than 1 minute.

Note: If one begins to use my cold thermogenesis protocol on my blog, you should only use the protocol if your VO2max is 25ml/kg/min Please refer to it on my Cold protocol blog post.

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Men

Vit D	70-120
Highly-Sensitive CRP	<.5
CO2	25 or above
Sex-Hormone Binding Globuline	25 or below
Estrodial (E2)	<25
IGF-1	225 or above
Free T3	3.3+
Free T4	1.5+
Free Testosterone	Top quartile to top 10%
TSH	.5 to 1.0
Pregnenalone	<130
Progesterone	Top quartile to top 10%
DHEA	Top 10% to 25% over reference range
Cortisol	Normal diurnal pattern

Women

Women may want to have their labs done on day 21 to ascertain fertility and optimal functioning of the endocrine system.

Vit D	70-120
HSCRIP	< .5
CO2	25 or above
Sex Hormone Binding Globuline	25 or below
Estradiol	top quartline
IGF-1	220 or above
Free T3	3.0 or above
Free T4	1.5+
Free Testosterone	Top 10%
Total Testosterone	35+
TSH	.5 to 1.0
Progesterone	Top 10%
Estrogen	Top 10%
Pregnenalone	130+
DHEA	Top 25% to 10% over reference range

Mitochondrial Lab values

Bun/Creatine	=/< 10:1
CO2	