

## Optimizing Labs

Below is a list of optimal lab values for the labs that Dr Kruse may recommend based on your health history. You can review Dr. Kruse's optimizing labs on his blog, [What are the Optimizing Labs?](#)

If you would like Dr. Kruse to do an email lab consult with you to recommend which labs you should start with, you may sign up for an email lab consult. (Note: you must be a Silver or Gold Klub member to get an email lab consult. Upgrade your membership [here](#).)

ASI	Normal total cortisol with correct diurnal pattern over normal DHEA level
Glucose	88 or below <i>This should be a fasting glucose reading, meaning you didn't have anything to eat or drink 12 hours before the test</i>
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.*

## 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