

Recommended Metabolism Labs

Baseline tests for everyone:

(Should be interpreted by a functional medicine doctor or naturopathic doctor as the standard ranges given by labs do not indicate functional issues that will clue you in on what is derailing your metabolism)

CMP (complete metabolic panel)

CBC w/diff (complete blood count with differential)

25,OH-cholecalciferol (60-80 ng/mL)

Fasting total cholesterol (150-199 mg/dL)

Homocysteine (<7.2)

Complete Thyroid Laboratory Assessment:

(bolded are the minimum to order)

TSH	(1.0-2.0 mIU/L)
Total T3	(150-180 ng/DL)
Free T3	(3.2-4.0 pg/mL)
Total T4	(6.0-12.0 mcg/DL)
Free T4	(1.1-1.5 ng/DL)
T3 uptake	(28-38%)
Reverse T3	(<15.0 ng/DL)(<10:1)
Iodine (urine)	(0.79-1.56 µmol/L)
Ferritin	(women 70-90 ng/mL) (men 110-120 ng/mL)
RBC Selenium	(0.16-0.49 µg/g)
RBC Zinc	(7.8-14 µg/g)
Thyroid Peroxidase Abs (TPO Abs)	(0-4 IU/mL)
Thyroglobulin Abs (TgAb)	(0-0.9 IU/mL)
Thyrotropin-blocking antibodies (TBab)	(follow lab range)
B2 (riboflavin)	(4-24 µg/dL or 106-638 nmol/L)
B3 (niacin)	(5.2-72.1 ng/mL)
B6 (pyridoxine)	(30-110 nmol/L)

If all labs look normal but you still have the symptoms of hypothyroidism, consider a Basal Body Temperature Study

Adrenal Glands Assessment:

4 sample salivary cortisol test, aka adrenal stress index

With DHEA (if have not ordered as part of sex hormone tests)

Complete Sex Hormone Laboratory Assessment:

(For both men and women. Ranges are based on age and time of cycle and so are often not provided in this section. Women should test hormones in days 18-21 of their cycle, just after ovulation)

Pregnenolone

DHEA (200-400)

SHBG (Sex hormone binding globulin) (18-114 nmol/L)

Total Testosterone (Men: <30yo >700; >30yo >500)

Free Testosterone (Men: 15-20)

DHT if male pattern hair changes

Progesterone (Luteal phase >15 ng/mL)

Estrone (E1)

Estradiol (E2) (Follicular phase 25-75 pg/mL)

Estriol (E3)

If perimenopausal test estrogens on days 18-21 of cycle

Insulin Resistance and Blood Sugar Regulation:

Fasting plasma glucose (65-85 mg/dL)

Fasting serum insulin (<5.0 uIU/mL; 0-15 mIU/mL)

HbA1C (hemoglobin A1C) (4.5-5.2%)

More advanced:

Oral Glucose Tolerance Test (OGTT) (<120 mg/dL)

If you tend to get hangry or crash hard 1-2 hours after eating carbs/starches/sugars you may want to also include a LDH (lactic acid dehydrogenase) (140-180 IU/L)

Inflammation Markers:

Hs-CRP (high sensitivity C-reactive protein) (0-1 mg/L)

ESR (erythrocyte sedimentation rate) (Male <5 mm/hr; Female <10 mm/hr)

LDH (lactate dehydrogenase) (120-160 IU/L)

Omega 3 + 6