Biogenetix

FUNCTIONAL LAB RANGES: QUICK REFERENCE GUIDE

December 2024

The ranges provided in this document represent values commonly used by practitioners in their day-to-day applications and come from a broader webinar discussion (see page 2 for reference link).

These ranges are subject to change as ongoing research and clinical understanding evolve. They are not exhaustive nor definitive for Functional Medicine and do not preclude the use of other markers or assessments for evaluating specific conditions.

LAB MARKER	SAMPLE RANGE
IRON	
TIBC	250–350
Iron Saturation	25–55%
Iron	80–120
Ferritin	Premenopause 50–122 Postmenopause 75–150 Male 75–150
CBC	
WBC	4.5–6.5
RBC	M 4.8–5.5 F 4.4–4.8
Hemoglobin	M 14–16 F 13–14.5
Hematocrit	M 44–49% F 39–45%
MCV	84–92
MCH	28–32
MCHC	33–35
RDW	< 13%
Platelets	225–275k
Neutrophils	60%
Lymphs	30%
Monocytes	4–7%
Eos	< 3%
Basos	< 3%
GENREAL METABOLIC	
Glucose	82–88
BUN	12–17
Creatinine	M 0.8–1.1 F 0.7–1.0
BUN:Creatinine Ratio	10–20
eGFR	> 60
Sodium	135–140
Potassium	4.0–4.4
Chloride	101–103
Carbon Dioxide	25–28
Calcium	9.4–9.8
Protein	7.0–7.3
Albumin	4.2–4.7
Globulin	2.3–2.7
A/G Ratio	1.8–2.0
Bilirubin	0.5–0.8
Alk Phos	65–90
AST	10–26
ALT	10–26
LIPID	
Cholesterol	150–200
Trigs	50–100
HDL	45–65
VLDL	< 40
LDL	< 100
T chol/HDL	< 3.0

THYROID	
TSH	1.5–2.0
Thyroxine (T4), Total	6–12
Free T4	1.3–1.8
T3, Total	100–180
Free T3	3.2–4.2
T3 Uptake	M 32–38 F 28–34
Reverse T3	9–35
FTI	1.2–4.9
Thyroid Peroxidase (TPO) Ab	0–34
Thyroglobulin Antibody	0.0–0.9

ADDITIONAL	
Hemoglobin A1C	5.1–5.3
Insulin	< 5
C-Peptide	1.5–3.0
Vitamin D	60–80
CRP	< 1
Homocysteine	< 7
Phosphorous	3.1–3.5
LDH	140–180
GGT	10–26
Magnesium	2.0–2.3
Fibrinogen Activity	< 300
Uric Acid	M < 5.0 F < 4.5
Omega–6:Omega–3 Ratio	1.0–3.0 : 1

BLOOD METALS	
Mercury	< 50th Percentile
Lead	< 50th Percentile
Cadmium	< 50th Percentile
Arsenic	< 50th Percentile
Copper:Zinc Ratio	0.8–1.2 : 1

CIRS MARKERS	
MSH	35–81
MMP-9	85–332
VEGF	31–86
TGFB-1	< 2830
Leptin	M 0.5–13.8 F 1.1–27.5
ADH	1.0–13.3
ACTH	8–37

SALIVA		
Cortisol:	8:00 AM	13–24 nM
	12:00 PM	5–10 nM
	4:00 PM	3–8 nM
	10:00 PM	1–4 nM
Total		22–46 nM
Food Sensitivity		Desired: Negative
SIgA		10–20 mg/dL
Estradiol		M 1–5 mg/ml F 1–10 pg/ml
Testosterone		M 15–135 pg/ml F 10–38 pg/ml
Progesterone		M 5–95 pg/ml F 5–300 pg/ml
LH		M 8–55 uIU/mL F 8–30 uIU/mL
FSH		M 12–125 uIU/mL
Cycling		F < 125 PM 90–500
DHEA		3–10 ng/ml
DHT		22–89 pg/ml
Androstenedione		151–350 pg/ml

For more reference information about this document, see: https://biogenetix.com/lab-testing-part-four-blood-testing/