Juniper Hill Wellness

Health & Wellness Report
Maya Okafor

Juniper Hill WELLNESS

LAB DRAW	PRACTITIONER	RANGES USED
Aug 25, 2026	Laura Bennett, NTP	Functional

Practitioner Notes

Reviewed results together today. Energy is steadier in the afternoons. Continue the current plan and recheck the iron panel in 3 months.

Marker Summary

FUNCTIONAL RANGES

HORMONES

Cycle phase: **Follicular**

Progesterone — 0.5 ng/mL — Optimal

Steroid hormone produced after ovulation; supports uterine lining and hormone balance.



Standard **0.1–0.9** ng/mL

Estradiol — 34 pg/mL — Below optimal

Primary estrogen; supports reproductive tissue, bone density, and cardiovascular health.



Standard **12.5–166** pg/mL

LH — 9.2 mIU/mL — Above optimal

Luteinizing hormone from the pituitary; triggers ovulation and corpus luteum formation.



Standard **2.4–12.6** mIU/mL

DHEA-S

118 µg/dL — Below optimal

DHEA-sulfate; an adrenal androgen precursor that declines naturally with age.



Standard **61–337**

SHBG

58 nmol/L — Optimal

Sex hormone-binding globulin; transports sex hormones and affects free hormone availability.



Standard **17.3–125**

Cortisol AM

12.4 µg/dL — Optimal

Primary stress hormone produced by the adrenal glands; regulates metabolism and immune response.



Standard **6.2–19.4**

Prolactin

11 ng/mL — Optimal

Pituitary hormone involved in reproductive function and milk production.



Standard **2–29**

Pregnenolone

42 ng/dL — Below optimal

Master precursor steroid hormone produced from cholesterol; precursor to cortisol, DHEA, progesterone, and testosterone.



Standard **22–237**

THYROID

TSH

2.9 µIU/mL — Above optimal

Thyroid-stimulating hormone; released by the pituitary to signal thyroid hormone production.



1–2 optimal

Standard **0.45–4.5**

Free T4

1.1 ng/dL — Optimal

Free thyroxine; the inactive thyroid hormone precursor available for conversion to T3.



1–1.5 optimal

Standard **0.8–1.8**

Free T3

2.7 pg/mL — Below optimal

Free triiodothyronine; the active thyroid hormone that enters cells and drives metabolism.



3–4 optimal

Standard **2.3–4.2**

Reverse T3

13 ng/dL — Optimal

Reverse T3; an inactive form of T3 that the body produces from T4 alongside active T3.



0–15 optimal

Standard **9.2–24.1**

TPO Antibodies

6 IU/mL — Optimal

Thyroid peroxidase antibodies; immune proteins directed against thyroid peroxidase, an enzyme the thyroid uses to produce its hormones.



0–9 optimal

Standard **0–35**

VITAMINS & MINERALS

Vitamin D (25-OH)

27 ng/mL — Low

25-OH Vitamin D; fat-soluble vitamin essential for immune function, calcium absorption, and bone health.



50–80 optimal

Standard **30–100**

Vitamin B12

360 pg/mL — Below optimal

Vitamin B12; essential for nerve function, DNA synthesis, and red blood cell formation.



500–900 optimal

Standard **200–1100**

Methylmalonic Acid (MMA)

210 nmol/L — Optimal

Methylmalonic acid; a compound produced during normal metabolism and processed by an enzyme that depends on vitamin B12. Often ordered alongside a vitamin B12 test.



0–260 optimal

Standard **0–400**

Folate

14 ng/mL — Optimal

Vitamin B9; critical for DNA synthesis, cell division, and homocysteine metabolism.



10+ optimal

Standard **2+**

Zinc

71 µg/dL — Below optimal

Essential trace mineral involved in immune function, enzyme activity, and wound healing.



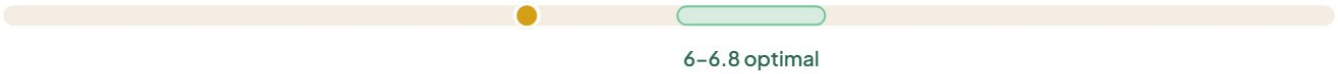
80–120 optimal

Standard **60–130**

Magnesium, RBC

5.2 mg/dL — Below optimal

Magnesium measured inside red blood cells, where most of the body's magnesium is held, rather than the small amount circulating in serum.



Standard **3.6–7.5**

IRON MARKERS

Serum Iron

64 µg/dL — Below optimal

Essential for hemoglobin production and oxygen transport in red blood cells.



Standard **50–170**

Ferritin

24 ng/mL — Low

The body's primary iron storage protein; a sensitive marker of iron reserves.



Standard **30–150**

TIBC

342 µg/dL — Optimal

Total iron-binding capacity; measures the blood's capacity to carry iron.



Standard **250–425**

% Transferrin Sat.

19 % — Below optimal

The percentage of iron-binding sites on transferrin that are occupied by iron.



Standard **15–55**

Calculated from serum iron and TIBC, not measured directly.

LIPIDS AND LIPOPROTEINS

Total Cholesterol

178 mg/dL — Optimal

A lipid essential for cell membrane structure and hormone synthesis.



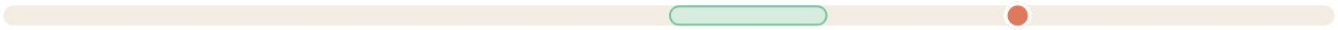
160–199 optimal

Standard **0–199**

Triglycerides

92 mg/dL — Above optimal

Blood fats derived from dietary fat and excess calories; stored as energy.



70–80 optimal

Standard **0–150**

LDL-C

96 mg/dL — Optimal

Low-density lipoprotein; the primary cholesterol carrier to peripheral tissues.



80–99 optimal

Standard **0–99**

Calculated from total cholesterol, HDL and triglycerides, not measured directly.

HDL-C

64 mg/dL — Optimal

High-density lipoprotein; transports cholesterol back to the liver for processing.



55–93 optimal

Standard **50+**

Apolipoprotein B

76 mg/dL — Optimal

Apolipoprotein B; the structural protein carried by LDL and other non-HDL lipoproteins, with one molecule per particle.



52–80 optimal

Standard **50–130**

BLOOD SUGAR REGULATION

Fasting Glucose

84 mg/dL — Optimal

Blood sugar; the primary fuel source for cells, particularly the brain.

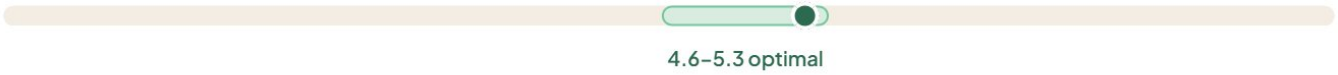


Standard **65–99**

HbA1c

5.2 % — Optimal

Glycated hemoglobin; reflects average blood glucose over the prior 2–3 months.



Standard **0–5.7**

Fasting Insulin

6.8 µIU/mL — Above optimal

Pancreatic hormone that regulates glucose uptake into cells; a key marker of metabolic health.



Standard **2.6–24.9**

LIVER & GALLBLADDER

ALT

14 U/L — Optimal

Alanine aminotransferase; a liver enzyme used to evaluate liver health.



Standard **6–29**

AST

18 U/L — Optimal

Aspartate aminotransferase; a liver and muscle enzyme used to assess liver health.



Standard **10–40**

GGT

11 U/L Optimal

Gamma-glutamyl transferase; a sensitive liver enzyme associated with bile duct function.



0–20 optimal

Standard **3–40**

KIDNEY HEALTH

BUN

12 mg/dL Optimal

Blood urea nitrogen; a waste product of protein metabolism filtered by the kidneys.



10–16 optimal

Standard **6–20**

Creatinine

0.7 mg/dL Optimal

A muscle metabolism waste product filtered by the kidneys; reflects kidney filtration rate.



0.6–0.9 optimal

Standard **0.59–1.04**

INFLAMMATION

hs-CRP

1.4 mg/L Elevated

High-sensitivity C-reactive protein; a more sensitive assay of the same protein, able to detect low-level inflammation.



0–0.55 optimal

Standard **0–1**

Homocysteine

10.6 µmol/L Above optimal

An amino acid produced during metabolism and processed with the help of B vitamins.



5–8 optimal

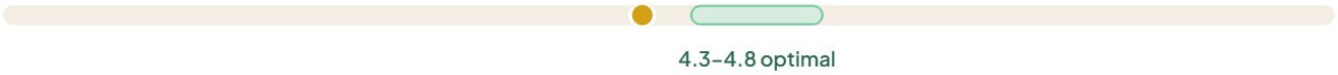
Standard **5–15**

CBC: HEMATOLOGY

RBC

4.1 M/µL — Below optimal

Red blood cell count; the total number of oxygen-carrying cells per unit of blood.



Standard **3.77–5.28**

Hemoglobin

12.4 g/dL — Below optimal

The iron-containing protein in red blood cells that carries oxygen.



Standard **11.7–15.5**

Hematocrit

37.8 % — Optimal

The proportion of blood volume occupied by red blood cells.

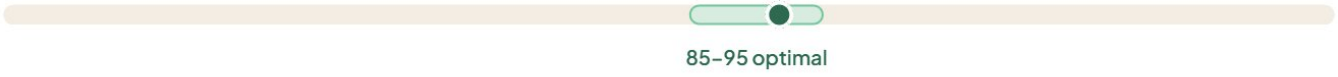


Standard **36–46**

MCV

91.7 fL — Optimal

Mean corpuscular volume; the average size of red blood cells.



Standard **80–100**

RDW

12.6 % — Optimal

Red blood cell distribution width; reflects variability in red blood cell size.



Standard **11.5–15**

CBC: WHITE BLOOD CELLS

WBC (Total)

White blood cell count; the total number of immune cells in circulation.

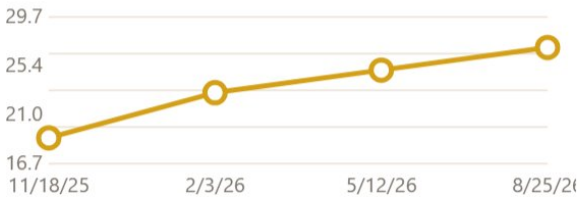
5.4 K/µL Optimal

5–7.5 optimal

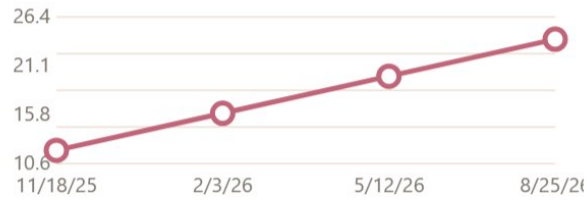
Standard **3.8–10.8**

Progress Trends: Last 4 Visits

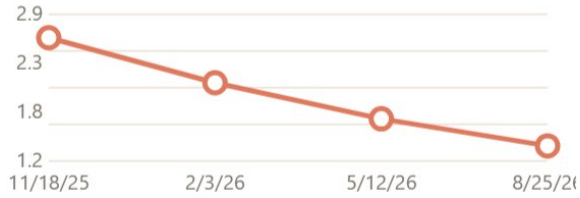
Vitamin D ↑2.0



Ferritin ↑4.0



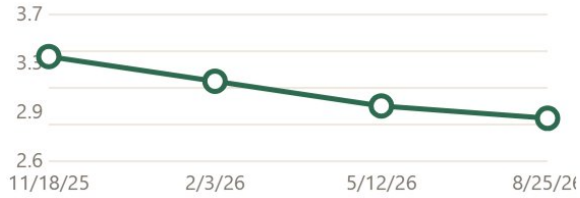
hs-CRP ↓0.3



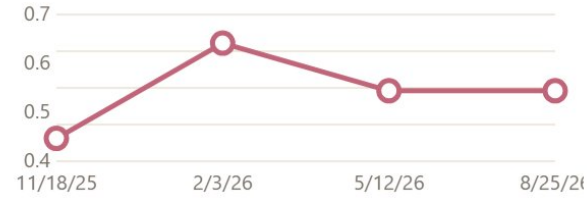
Homocysteine ↓0.5



TSH ↓0.1



Progesterone →



Lab History: All Visits

Test	Nov 18, 2025	Feb 3, 2026	May 12, 2026	Aug 25, 2026
HORMONES				
Progesterone ng/mL	0.4	0.6	0.5	0.5
Estradiol pg/mL	29	41	37	34
LH mIU/mL	6.8	8.1	7.6	9.2
DHEA-S µg/dL	104	110	115	118
SHBG nmol/L	52	55	57	58
Cortisol AM µg/dL	10.6	11.8	12.1	12.4
Prolactin ng/mL	13	12	10	11
Pregnenolone ng/dL	35	38	40	42
THYROID				
TSH µIU/mL	3.4	3.2	3	2.9
Free T4 ng/dL	1	1.1	1	1.1
Free T3 pg/mL	2.5	2.6	2.6	2.7
Reverse T3 ng/dL	16	15	14	13
TPO Antibodies IU/mL	7	6	6	6
VITAMINS & MINERALS				
Vitamin D (25-OH) ng/mL	19	23	25	27
Vitamin B12 pg/mL	290	318	341	360

Methylmalonic Acid (MMA) nmol/L	260	240	225	210
Folate ng/mL	9.6	11.2	12.8	14
Zinc µg/dL	64	67	69	71
Magnesium, RBC mg/dL	4.8	4.9	5.1	5.2
IRON MARKERS				
Serum Iron µg/dL	48	55	59	64
Ferritin ng/mL	12	16	20	24
TIBC µg/dL	398	376	358	342
% Transferrin Sat. %	12	15	16	19
LIPIDS AND LIPOPROTEINS				
Total Cholesterol mg/dL	186	182	180	178
Triglycerides mg/dL	118	104	97	92
LDL-C mg/dL	104	101	99	96
HDL-C mg/dL	58	60	62	64
Apolipoprotein B mg/dL	86	82	79	76
BLOOD SUGAR REGULATION				
Fasting Glucose mg/dL	88	86	85	84
HbA1c %	5.4	5.3	5.2	5.2
Fasting Insulin µIU/mL	9.4	8.1	7.4	6.8

LIVER & GALLBLADDER				
ALT U/L	16	15	14	14
AST U/L	19	18	18	18
GGT U/L	13	12	12	11
KIDNEY HEALTH				
BUN mg/dL	11	12	11	12
Creatinine mg/dL	0.7	0.8	0.7	0.7
INFLAMMATION				
hs-CRP mg/L	2.6	2.1	1.7	1.4
Homocysteine µmol/L	12.8	11.9	11.1	10.6
CBC: HEMATOLOGY				
RBC M/µL	4.0	4.0	4.1	4.1
Hemoglobin g/dL	11.8	12	12.1	12.4
Hematocrit %	36.4	36.9	37.3	37.8
MCV fL	91.5	91.3	91.4	91.7
RDW %	14.2	13.6	13	12.6
CBC: WHITE BLOOD CELLS				
WBC (Total) K/µL	5.1	5.3	5.2	5.4

Reference ranges reflect sex-specific functional optimal values where applicable, synthesized from current clinical literature, published functional medicine reference texts, and standard laboratory reference intervals. These are not diagnostic standards.

This report is prepared by a certified nutrition professional and is intended for informational and educational purposes only. It does not constitute medical advice, diagnosis, or treatment. All content is for educational reference only. Please consult a licensed physician for any medical decisions.