GAYA™
WELLNESS

ESSENTIAL BIOMARKERS WELLNESS GUIDE

Your Blueprint to Personalized Women's Health & Longevity.

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THE PURPOSE OF TRACKING

Biomarkers are objective indicators of your body's biological processes. Tracking them moves health care from reactive symptom management to proactive optimization. They provide the data necessary to catch imbalances before they become diagnoses.

Pillar 2
HOW BIOMARKERS DRIVE PERSONALIZATION

Generic health advice fails because your biology is unique. Biomarker data reveals your specific metabolic, hormonal, and nutritional needs, allowing for tailored interventions in diet, supplementation, and lifestyle that actually work for your body.

Pillar 3
WHY WOMEN'S HEALTH REQUIRES DEEPER PANELS

Standard medical care often overlooks the complexity of female physiology. Women's health is cyclical and deeply influenced by hormonal fluctuations. Deeper panels are essential to understand thyroid function, fertility patterns, peri/menopause transitions, and metabolic shifts distinct to women.

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METABOLIC HEALTH MARKERS

GLYCEMIC CONTROL

Marker	Why It Matters
Fasting Glucose	A snapshot of blood sugar levels after at least 8 hours without food.
HbA1c	An average of blood sugar levels over the past 2–3 months.
Fasting Insulin	Crucial for detecting insulin resistance before glucose rises.
HOMA-IR	The gold standard calculation for assessing insulin resistance.

HOMA-IR FORMULA: (FASTING INSULIN X FASTING GLUCOSE) / 405
(USING US UNITS MG/DL)
A HEALTHY RANGE IS TYPICALLY CONSIDERED < 1.0.

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COMPREHENSIVE METABOLIC PANEL (CMP)

Category	Markers Included	Function
Electrolytes	Sodium, Potassium, Chloride, CO_2	Essential for hydration, nerve, and muscle function.
Kidney Function	BUN, Creatinine, eGFR	Evaluates how well kidneys are filtering waste from the blood.
Liver Enzymes	AST, ALT, ALP	Indicators of liver health, inflammation, or cellular damage.
Blood Sugar	Glucose	Current blood sugar level.
Bone & Cell Health	Calcium	Vital for bone strength and cellular signaling.
Waste & Protein	Bilirubin, Total Protein, Albumin	Assess liver function and nutritional status.

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COMPLETE BLOOD COUNT (CBC)

Marker Category	Components	Why It Matters
Immune Cells	WBC (White Blood Cells) & Differential	Key indicators of immune system strength and presence of infection.
Oxygen Transport	RBC, Hemoglobin, Hematocrit	Assesses anemia and oxygen-carrying capacity of the blood.
RBC Indices	MCV, MCH, MCHC, RDW	Provides details on the size and health of red blood cells, crucial for identifying types of anemia (e.g., B12 vs Iron deficiency).
Clotting Agents	Platelets	Essential for blood clotting and wound healing.

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LIPID PANEL

Marker	The Breakdown
Total Cholesterol	The overall measure of cholesterol in your blood.
LDL (Low-Density Lipoprotein)	Often called "bad" cholesterol; carries potential to cause arterial buildup.
HDL (High-Density Lipoprotein)	The "good" cholesterol that helps remove LDL from arteries.
Triglycerides	A type of fat in the blood, strongly influenced by dietary sugar and refined carbs.
Non-HDL	Total cholesterol minus HDL; a better predictor of cardiovascular risk than LDL alone.
VLDL (Calculated)	Very Low-Density Lipoprotein; carries triglycerides.

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HORMONE HEALTH MASTER TABLE

Marker	Role & Clinical Significance
Estradiol (E2)	The primary estrogen during reproductive years. Critical for bone health, mood, and cycle regulation.
Progesterone	The "calming" hormone dominant in the second half of the cycle; vital for pregnancy maintenance and mood stabilization.
LH / FSH	Brain hormones that signal the ovaries. Their ratio and levels indicate ovarian reserve, menopause status, or conditions like PCOS.
REPRODUCTIVE & ANDROGENS: **Drivers of vitality, libido, and muscle maintenance.**	
Testosterone (Total + Free)	Vital in women for libido, bone density, muscle mass, and energy. "Free" T is the biologically active amount.
DHEAS	An adrenal precursor hormone that converts into other estrogens and androgens. A marker of adrenal reserve.
SHBG	Sex Hormone Binding Globulin. It acts like a sponge for hormones. High levels can reduce available (free) hormones; low levels can indicate insulin resistance.
Anti-Müllerian Hormone (AMH)	A marker used to assess ovarian reserve (egg count), though not egg quality.
STRESS & METABOLIC REGULATORS: **The foundation of energy and resilience.**	
Cortisol (AM / PM)	The "stress hormone." Testing diurnal rhythm (AM high, PM low) is crucial for understanding adrenal function and sleep issues.
Thyroid Panel (TSH, Free T4, Free T3, Reverse T3, TPO Ab, Tg Ab)	A complete look at thyroid health. TSH is the brain signal; T4/T3 are active hormones; Antibodies check for autoimmune conditions (Hashimoto's).
Vitamin D (25-OH)	Acts more like a hormone than a vitamin. Essential for immune function, bone health, and mood regulation.

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INFLAMMATORY MARKERS

Marker	Why It Matters
hsCRP (High-Sensitivity C-Reactive Protein)	A highly sensitive measure of general inflammation in the body and a strong predictor of cardiovascular risk.
Ferritin	Dual Role: A marker of stored iron, BUT it is also an "acute phase reactant," meaning it rises sharply in response to inflammation, masking true iron status.

THE INFLAMMATION–METABOLISM CONNECTION

Inflammation is not just about joint pain. Chronic inflammation directly impairs insulin signaling, leading to insulin resistance and weight gain. Conversely, excess adipose tissue (body fat) releases inflammatory cytokines, creating a vicious cycle. Managing inflammation is often the missing link in stubborn weight loss cases.

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BIOMETRICS AND TRACKING TOOLS

BODY COMPOSITION TABLE

Going beyond the scale to understand what your body is made of.

Metric	Definition
Visceral Fat	Dangerous fat stored deep around organs; linked to metabolic disease.
Subcutaneous Fat	The fat stored just beneath the skin.
Lean Muscle Mass	The engine of your metabolism. Crucial for longevity.
Body Fat %	The overall percentage of total mass that is fat tissue.
BMR (Basal Metabolic Rate)	Calories your body burns at complete rest.
Metabolic Age	A comparison of your BMR to the average of your chronological age group.

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WAIST CIRCUMFERENCE AND METABOLIC SYNDROME

The most powerful at-home metric for insulin resistance risk.

- **How to Measure**: Use a tape measure just above your hip bones and exhale normally.
- **The Cutoff**: For women, a waist circumference >35 inches indicates a significantly increased risk of metabolic disease.

The "3 out of 5" Rule (Metabolic Syndrome criteria):

Diagnosis typically requires 3 of the following:

- Waist > 35 inches (women)
- High Triglycerides
- Low HDL Cholesterol
- High Blood Pressure
- High Fasting Glucose

BLOOD PRESSURE MONITORING

- **Technique:** Seated quietly for 5 minutes, feet flat on the floor, cuff at heart level.
- **Optimal Target:** Generally less than 120/80 mmHg. Consistently higher readings require clinical attention.

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SLEEP TRACKING

- **Why track:** Poor sleep disrupts cortisol and insulin, increases hunger hormones, and stalls weight loss.
- **Key Metrics**: Total sleep time, Deep sleep %, REM sleep %, and consistency of bedtimes.

MENSTRUAL CYCLE TRACKING

- **Pattern Recognition**: Track cycle length, ovulation signs (cervical mucus), and length of bleed.
- **Symptom Tracking**: Note mood shifts, bloating, or pain. These act as clues to estrogen/progesterone imbalances.
- **Why it's Essential**: Hormonal blood tests must be timed to specific cycle days (e.g., Day 21 for Progesterone) for accurate interpretation.

SUMMARY AND NEXT STEPS

Data without action is just noise. Biomarkers provide the map, but interpretation is the compass.

Never attempt to interpret complex biomarker panels in isolation. Many markers influence one another—for example, thyroid function affects cholesterol levels, and inflammation affects iron markers. Clinical support is essential to connect these dots correctly.

Furthermore, biomarkers are a moving target. Retesting every **3–6 months** is crucial to track progress, adjust protocols, and ensure your personalized plan remains effective as your body changes.

READY TO OPTIMIZE?

Choose your path forward with ***GAYA WELLNESS***.

- **Focused Visit** | Deep dive into your endocrine health.
- **Weight Loss Concierge** | Metabolic-focused, data-driven programming.
- **Hormone Balance Concierge** | Comprehensive, high-touch care.
- **$50 Lab Review** | Professional interpretation of your current labs.
- **Express Visits** | Targeted support when you need it fast.