The Most Dangerous Words in Medicine: â??Your Labs Are Normalâ??Â

9 MIN READ

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Why “Normal” Lab Results Don’t Mean You’re Metabolically Healthy

Has your doctor ever uttered this phrase?

â??Your labs are normal.â?•

Theyâ??re the four most dangerous words in medicine today because they leave us with a false sense that everythingâ??s A-OK, when more than likely itâ??s not.

See, â??normalâ?• doesnâ??t mean healthy. It just means average. And when you are trying to assess the health of an individual, comparing blood test results with those from large population studies doesnâ??t really tell you much.

Consider glucose. A glucose measure of 99 mg/dL (milligrams per deciliter) after an overnight fast is considered within the â??normal range,â?• while 100, just one point higher, is abnormalâ??prediabetic. Is that one point the difference between healthy and unhealthy? Not when you consider the clinical guideline for normal range â?? 70 to 99 â?? is derived from the average glucose of a representative segment of the U.S. population, 93 percent of whom are metabolically unhealthy â?? and at risk for developing diabetes!

In nearly 30 years of treating patients as an endocrinologist practicing longevity medicine, I have yet to see a patient with optimal sugar. Average is not normal, not healthy. Making health decisions based on averages is like a clothing company choosing to produce only size 34 pants and expecting them to fit the entire population.

When we accept averages to determine â??healthy,â?• we get average healthcare and average lifespans. And weâ??ve been doing that for far too long. Hearing your doctor say, â??your labs are normal,â?• or even â??weâ??ll keep an eye on your sugars,â?•

gives you a false sense of good health. And itâ??s why so many **diabetes cases are first diagnosed in the Emergency Department** when patients come in for related symptoms.

Tell your doctor you wonâ??t accept â??normal,â?• you want â??optimalâ?• metabolism, with sugars in the 70 to 80 mg/dL after an overnight fast. Optimal metabolic capacity means your body is effectively processing food into energy, storing and properly clearing glucose from your bloodstream and tissues so it doesnâ??t hang around, slowly damaging your blood vessels and organs.

In my view, optimizing your metabolic capacity is the most important thing you can do to avoid the chronic diseases of aging: diabetes, cardiovascular disease, cancer, osteoporosis, and dementia.

How do you achieve optimal metabolic capacity? You start by truly understanding your place in the spectrum that determines your risk. And that requires looking much more closely than the results of any single biomarker.

What Is Metabolic Drift and When Does It Start?

Because I have yet to meet a human being with optimal sugars, I can say with confidence that you are likely experiencing metabolic drift away from optimal capacity right now if you are over the age of 30. Thatâ??s not to say that there arenâ??t children, teens, and twenty-somethings with prediabetes and diabetes; there are many millions.

Generally, metabolic drift begins in earnest for most people at the start of midlife, as hormones such as testosterone begin to decline. The so-called â??male hormone,â?• which is present in women, and actually exceeds estrogen levels, begins to decline one to three percent per year starting around age 30. Thatâ??s important to realize because that downward drift is virtually imperceptible. But over time, it changes your metabolic capacity because it results in muscle loss, unless you work to maintain that

muscle through resistance exercise and eating adequate protein.

Why is muscle so important to your metabolic capacity? Because muscle is a metabolically active tissue 24/7, even when you are not doing deadlifts, even when youâ??ve fallen dead asleep on the couch. Also, muscle is a carbohydrate storage vessel thatâ??s crucial for maintaining blood glucose homeostasis.

When insulin is released from the pancreas, insulin receptors trigger signals that allow glucose to be drawn up into muscle cells like a kid sucking up a cherry Slurpee with a straw. Studies show that people with greater muscle mass have a greater number of insulin receptors and transporters, which boost glucose uptake capability. Whatâ??s more, **studies** also tell us that people who do aerobic exercise regularly tend to have greater mitochondrial density, which increases fat and sugar metabolism and elevates metabolic capacity, which, in turn, slows biological aging.

Since you canâ??t easily recognize slow muscle loss and declining metabolic capacity by looking in a mirror, you must seek other clues â?? and there are many. Start with your family health history. Which medical conditions did your father, mother, grandparents, cousins, uncles, and aunts have, and when did they start? Do diabetes, high blood pressure, cancer, dementia, and heart disease run in your family? Investigating heritable conditions is an inexpensive yet telling genealogy test that can tip you off to what you might expect in your health future.

The Five Biomarkers That Actually Reveal Your Metabolic Health

Next, have your key biomarkers tested. Five blood tests tell the real story; yet most doctors order one, maybe two. Together, they reveal where you are on the metabolic spectrum and how much runway you have before a problem becomes a diagnosis.

1) Hemoglobin A1c

Hemoglobin A1c (HbA1C) is a widely used diabetes test that determines the average glucose level over the past 100 days by measuring glycated red blood cells. While medical guidelines define â??normalâ?• A1C as less than 5.7 percent, thatâ??s just another misleading average that could conceal dangerously high spikes and low dips in sugars occurring every day over those hundred days.

Yo-yoing sugars tend to be much more damaging to the body over time than stable levels.. For that reason, I consider optimal A1C to be under 5 percent and any value over that signals diabetes, elevated sugars, and insulin resistance in your future health trajectory, and a reason to start intervening to reverse disease.

Why wait until your A1C reaches 6.5 percent, the CDCâ??s threshold for diabetes, to start treatment? That doesnâ??t make sense, especially when you consider how scientists settled on an A1C of 6.5 for a diabetes diagnosis. Blurred vision, technically called retinopathy, is a symptom of diabetes that occurs most often in people with an A1C of 6.5 percent or higher. So, then does that mean your A1C of, say, 6.4 percent shouldnâ??t concern you or your doctor because youâ??re not above the threshold for potential diabetic blurred vision? Thatâ??s ridiculous! Your doctorâ??s assurance, â??Weâ??ll keep an eye on it,â?• is the second most dangerous phrase in medicine today.

HbA1C is useful but as I indicated earlier, can be misleading, so add two other diabetes tests, fasting glucose and fasting insulin, for a more accurate picture of your sugar situation.

2) Fasting Glucose Test

A fasting glucose test is a snapshot of how your body is handling sugar at the exact point in time when you hit the camera control button. This measures the amount of sugar circulating in your blood after you have not had anything to eat or drink (except water) for at least eight to 12 hours.

Fasting glucose is typically measured in milligrams per deciliter (mg/dL). The optimal morning range after a fast should be 70 to 80 mg/dL. Between 81 and 94 is not

optimal and indicates current and future diabetes and other associated disorders, such as cardiovascular diseases, dementia, and others. Glucose measuring between 95 and 125 mg/dL, however, indicates a more imminent glucose regulation disorder; you have prediabetes, the precursor to all types of diabetes, although type 1 is in a class by itself.

A level above 125 mg/dL means you are likely diabetic (200 mg/dL is diabetes). I say *likely* because, remember, this test measures your glucose level at just a single point in time. To follow your rising and falling glucose more closely, I suggest a remarkably useful toolâ??a continuous glucose monitor (CGM), a small device you insert on the back of your arm that measures glucose in the subcutaneous interstitial fluid between your cells and is a good approximation of your blood sugar. It transmits that data to your mobile phone so you can see how food, sleep,activity, and stress impact your sugars in real time throughout the day. And now you can get one without a prescription.

3) Fasting Insulin Test

A fasting insulin test gives you a more complete picture of how your body is managing sugar. Itâ??s rarely drawn in standard tests, which, in part, may be due to a lack of insurance coverage or to doctors not always recognizing its value. But itâ??s an excellent marker of metabolic health and accelerated aging. Elevated fasting insulin serves as an early warning signal of future diabetes because it can be detected decades before diabetes is diagnosed through other tests. That kind of heads up helps maximize your metabolic capacity.

While there isnâ??t a universal consensus on an unhealthy level of fasting insulin, the data is clear. After an overnight fast, or even 3 hours after eating, your insulin should be virtually undetectable or less than 2Î¼U/mL. Anything over that is an early sign of insulin resistance.

4) Free Testosterone Test

A free testosterone test can shed significant light on your metabolic capacity. When testosterone is low, your ability to maintain muscle is compromised, and muscle loss is a leading contributor to carbohydrate disorders, including insulin resistance. When you have less muscle, more glucose remains circulating in your system. Thatâ??s why youâ??ll find diabetes even in very fit and lean marathoners; they donâ??t necessarily have enough muscle mass to protect them from diabetes, and genetic variants are present in all of us.

5) Cholesterol Risk Ratio

Cholesterol risk ratio (CRR) is considered a more telling assessment of your cardiovascular health than total cholesterol or LDL (the so-called â??badâ?• cholesterol). To calculate CRR, divide your total cholesterol number by your HDL (â??goodâ?• cholesterol) number. For example, if your total cholesterol is 200 md/dL and your HDL is 50 mg/dL, your ratio would be 4 to 1. Higher ratios mean a higher risk of heart disease.

How to Assess Your Metabolic Capacity at Home

When patients come to the Comite Center, we always check their body composition â?? their percentages of muscle versus fat, bone, and water. We use a professional InBody body composition analyzer, but home-use versions, the size of a bathroom scale, are available as well.

Body comp is a critical component of our precision health analysis, helping us assess metabolic health disorders. We also test patientsâ?? grip strength and aerobic capacity using a VOâ?? max treadmill or bicycle test, since these are strong indicators of overall fitness and longevity and contribute to our assessment of metabolic health. Most gyms and doctorsâ?? offices have dynamometers available to test grip strength. Finding a facility with expensive VOâ?? max equipment can be challenging, but

fitness apps on smart devices like Apple and Garmin watches and Whoop can estimate your VOâ?? max fairly accurately.

For an instant old-school gauge of your aerobic ability, you can try a home test developed by cardiologists to help physicians triage cardiac patients very easily: Time yourself walking up four flights of stairs. 90 seconds or less is optimal based on metabolic equivalents: Any longer, you should see your doctor for a full exam and clearance to begin a cardiovascular fitness program.

I hope youâ??re starting to see my point about making health decisions based on single biomarkers alone and â??normal rangeâ?• results. Improving your metabolic capacity starts with knowing accurately where you stand. Your embarkation point is crucial to planning the route to your destination.

First, Build Your Database of Facts:

- **Explore your DNA.** You can do it without a genetic test by investigating your familyâ??s health history to see which chronic diseases may be potentially lurking in your genetic code. A recent study in the journal ***Science*** found that genes play a much larger part in lifespan than previously thought. Researchers from Israelâ??s Weizmann Institute of Science studying twins and separating deaths caused by accidents and infections from deaths tied to aging factors like chronic disease found that genetics could account for up to 55 percent of a personâ??s lifespan, more than double previous estimates. I believe the heritability of longevity is even higher, which is why I emphasize exploring a patientâ??s family health history and am so excited about the potential to identify genetic variants regulating aging that can be influenced by epigenetics and pharmaceuticals. Should not that be an option, due to adoption, distance, lack of relationship, or early loss of family members, the biomarkers will underscore your risk, and a CGM will help to sort out what can and should be addressed proactively.
- **Test fasting glucose, fasting insulin, A1C, free testosterone, and cholesterol risk ratio**, which is your total cholesterol number divided by your â??goodâ?• HDL

cholesterol. Heart health is directly impacted by your carbohydrate metabolism. Did you know that having diabetes puts you at the same risk of a first heart attack as the risk heart attack patients have for a second heart attack?

- **Get a body composition analysis** for an accurate measure of your muscle mass. Remember, muscle is an active longevity organ, a key regulator of glucose.
- **Use a CGM** to look for telltale spikes and dips due to foods, insufficient sleep or poor-quality sleep, exercise, and stress that affect your readings, so you can modify your habits, including eating patterns. Adding restorative practices like meditation, yoga, and deep breathing will make a difference.

Then, Follow This Six-Step Protocol for Improving Your Metabolic Health

1. **Start your meals and snacks with protein (fiber and fat)**, which will minimize glucose spikes by slowing digestion and the rapid absorption of the sugars from the carbohydrates you eat afterward.
2. **Eliminate highly processed foods,** which accelerate metabolic disorders.
3. **Strength-train two to three times a week** to build and maintain your all-important muscle.
4. **Include some high-intensity interval training (HIIT) and aerobic exercise** at least once a week to improve your insulin sensitivity.
5. **Repeat your bloodwork and body composition every four to six months** to measure those key benchmarks of progress.
6. **Consider hormone optimization therapy** to maintain muscle mass and reap the many other cardiometabolic benefits of a stronger, fitter system that keeps dangerous visceral body fat to a minimum.

In a time when uncertainty in the world seems like the new norm, rest assured that you can build a plan to maintain your health and metabolic vitality for life by not accepting normal and reaching for optimal. Seek the truth in the data; you can use that

knowledge to modify the expression of your genetic blueprint to live healthy all the days of your life.

Note: Dr. Comite's new book, ***Invincible: Defy Your Genetic Destiny to Live Better, Longer***Â is published by Little, Brown Spark, and just released on April 28, 2026.Â

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