A HEAVENLY HEALTH HACKS COMPANION

Chapters 9, 14 & 15

M46 MINISTRIES

MEN'S HEALTH, *Plainly*

Testosterone, the heart, the prostate, fertility, strength and sleep — what to test, what the numbers mean, what actually moves them, and what to ask your doctor.

GUIDE 03

BRYAN ELLIOTT

M46 MINISTRIES · NOVEMBER 2026 · M46MINISTRIES.COM

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MEN'S HEALTH, *Plainly*

A plain-language guide for men. What to test, what the numbers mean, what actually moves them, and where the evidence is strong or thin. Every number is given in US units first, with the units Canadian labs use in [brackets]. Part 1 is the plain version; Part 2 goes deeper. Three pages are made to print: the dashboard (Section 2), the questions (Section 17) and the tracker (Section 18).

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⚠️ Important — Read This First

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My Story — Why This Booklet Exists 📍

My father had his first heart bypass at 51. By 65 he was on dialysis. His father's brothers and sisters all died of heart disease before 60. If genes were destiny, I'd be on a handful of prescriptions by now.

I'm 56, and I take none. I'm not living like a monk, either. I eat real food I love, as much as I want. I lift three times a week for about 45 minutes — that's all — walk a lot and sleep in a cold, dark room. No extremes, no obsession. I stopped doing the things that wear a body down, and I started testing instead of guessing.

What	Mine	Why it matters
Biological age (DNA test)	48.0 at a calendar age of 55.8 — younger than 95.8% of men my age	How old your body acts, not how many birthdays you've had. A marker, not a verdict
Pace of aging (DunedinPACE)	0.71 — about seven-tenths of a year for every calendar year; in the top 5% of men my age	1.0 is average. Lower means your body is wearing out more slowly
Testosterone	1,058 ng/dL [36.7 nmol/L], on no hormones	Drive, muscle, mood and bone, made by a body that's being looked after
Bone density	Spine T-score +1.8 — top 4% of healthy young adults at peak bone mass. Hips, average of both sides, +0.9 — top 18% of healthy young adults	Hips are where bone usually thins with age, and a broken hip is what ends independence
Heart	Blood pressure 120/80. Resting heart rate 44, as low as 37 at rest	A low resting pulse is the mark of a heart trained over years. Blood pressure is the most fixable risk there is
Strength	50 push-ups, a 5-minute wall sit, a 2-minute dead hang	Whether you'll still carry your bags, climb your stairs and get up off the floor at 85
Medications	none	Not one prescription — with my family's heart history

The tests catch me too — and that's the point. I've had fourteen blood panels in sixteen years, because you can't steward what you don't measure. In 2026 Teresa and I went further: extensive testing, partly for the writing of *Heavenly Health Hacks*, using ourselves as human laboratories. This year a number I'd stopped watching had drifted red: ApoB, the count of the particles that build plaque. It had climbed to 144. A few months of small changes brought it to 109 by November, and it's still falling. The number you stop checking is the one that gets you.

Same kitchen, two bodies. Teresa and I eat the same food, keep the same routines and train side by side. On April 22, 2026 we gave blood at the same lab on the same morning. What surprised us both was how alike our numbers came back:

Marker	Me (55)	Teresa (48)	What it says
Biological age	48.0 at 55.8	39 at 48.9	Both of us well younger than our years
Pace of aging	0.71	0.75	Both aging at least a quarter slower than average
HbA1c	5.5%	5.5%	Identical

Marker	Me (55)	Teresa (48)	What it says
Fasting insulin	3.7 µIU/mL [26 pmol/L]	5.3 µIU/mL [37 pmol/L]	Both at or near optimal
Free T3 (thyroid)	2.7 pg/mL [4.1 pmol/L]	2.6 pg/mL [4.0 pmol/L]	Nearly identical
hsCRP (inflammation)	below detection	below detection	Little fire in either of us
Lp(a)	under 10 nmol/L	under 10 nmol/L	Both near zero — a gift from our genes, not something we earned
ApoB	128 mg/dL [1.28 g/L]	112 mg/dL [1.12 g/L]	Both above the 80 target

Where we differed, it came down to the body, not the plan:

- **Plaque.** My heart scan found early, mostly soft plaque; Teresa's found none. My ApoB was higher, it had been high for longer, and I'm seven years older.
- **Iron.** My ferritin was 264 ng/mL [264 µg/L], on its way down from 486, because I carry an iron-loading gene. Hers was 38 — the low end, common in a woman who still has periods. Same plate, opposite iron.
- **Triglycerides ÷ HDL.** On that April draw, mine was 0.54 [0.24]; hers 1.2 [0.54], just above the 1.0 [0.44] target.

Same lifestyle, very similar results — and the differences are exactly why you test your own body instead of copying someone else's plan. Two people aren't proof. But it's a pattern worth noticing.

The biggest change wasn't in the gym. In my 40s I was fit by every outward measure, and I was tired and anxious. I was carrying old hurts and worries I had never dealt with. It takes a huge amount of energy to keep emotions pushed down. When I finally faced them — forgiving people, letting things go, years of deliberate inner healing — my energy came back. I have more at 56 than I had at 40. The order was heart first, then body.

Fix the root, not just the reading. Most of what wears a man down comes from how he lives: belly fat, high insulin, high blood pressure, low testosterone, poor sleep. That means most of it can be turned around by how he lives. So start there, before you reach for the quick fix. Medicine is a good tool for what lifestyle can't fix. It's a poor substitute for what it can. *(If you already take a prescription, keep taking it — change your life first, then let your doctor lower the dose as your numbers move.)*

None of this took a prescription or a fortune. That's what this booklet is for: know your numbers, understand why each one matters, and fix the root. If my numbers can move with my family history, yours can too. Start with the three steps in the box below.

💡 Start here — if you read nothing else

1. Measure your waist and divide by your height. Over 0.5 is the problem under most of the others.
2. Lift heavy twice a week and fix the snoring. Testosterone usually follows.
3. One morning, fasting: testosterone with SHBG, ApoB, fasting insulin, HbA1c. Then call one man.

Bottom line: Most of what's wrong was built by how you live — so most of it can be rebuilt the same way. Root first, pill second.

Part 1 — Plainly

How to Use This Guide 💡

This guide is the men's page of *Heavenly Health Hacks*. It comes in two parts.

Part 1 — Plainly is the short version: my story, the numbers that matter most, the weekly playbook, what you carry inside, and how to read it all together. If you read only Part 1, you'll know what to test, why it matters and what to do first.

Part 2 — Going Deeper is the reference: testosterone, therapy, erections, the heart, the prostate, fertility, strength norms and sleep, with the evidence behind each. Go to the section you need.

Every section opens with one line in bold — **Why it matters**. Read those lines alone and you have the booklet in a page.

Three pages are made to print: the dashboard (Section 2), the questions for your doctor (Section 17) and the tracker (Section 18).

How to read the evidence. "Solid" means large trials or consistent studies. "Moderate" means small or older trials pointing the same way. "Thin" means early, mixed or mostly marketing. Where the mainstream view and this book differ, I say so.

Units. US units first, Canadian [SI] units in brackets. Testosterone in particular looks completely different in the two systems: 500 ng/dL is 17.3 nmol/L. Some numbers read the same in both countries — HbA1c (%), hsCRP (mg/L), SHBG and Lp(a) (nmol/L), PSA (ng/mL = µg/L), VO_2 max and waist ÷ height — so they carry no bracket.

My numbers. Boxes marked 📍 **My numbers** show my own results from 2026. They are examples, not targets.

📍 Cross-reference: *Heavenly Health Hacks* — Chapter 9 (My Body, My Lab) · Chapter 14 (The Power of Movement — Men's Vitality) · Chapter 15 (sleep) · Chapter 19 (sauna and fertility) · *Bloodwork, Plainly* · *Cholesterol, Plainly*

1 Why Men Need Their Own Page 🧔

Why it matters: Most of the years men lose early are preventable, and the warnings show up long before the damage.

Men in Canada live about four and a half years less than women — 79.6 years against 84 in 2023. Most of that gap is not biology. It is heart disease that went unnoticed, accidents, drugs, alcohol and suicide, and a habit of not going to the doctor until something breaks.

Three things are true for most men:

- **The warning lights come early, and men ignore them.** Erections change years before a heart attack. Insulin climbs a decade before diabetes. Snoring and daytime fatigue point to sleep apnea long before the heart and brain pay for it.
- **Testosterone is a symptom more often than a cause.** A man with a big waist, short sleep and too much alcohol often has low testosterone. That's usually his body reporting on the rest of his life. Fix the life and the number often follows.
- **Men die alone more than they need to.** About three out of four people who die by suicide in Canada are men. Strength includes asking for help.

The goal of this guide is simple: catch the early warnings, fix the root, and use medicine when the evidence says it helps — not before, and not instead.

2 The Men's Dashboard at a Glance 🩺

Why it matters: A handful of cheap numbers can show trouble ten years before a diagnosis. Test these and you'll know where you stand.

Know your numbers — that's where the power is. The number you refuse to look at is running you from behind a curtain. And don't settle for the lab's "normal": normal is the average of everyone who walks into a lab, people already getting sick included. In a 2022 Tufts study of 55,000 US adults, only 6.8% had optimal heart and metabolic health. Normal isn't your target. Optimal is.

Watch insulin before sugar. Glucose is the smoke detector; insulin is the fire, often burning ten years before the alarm goes off. Most physicals never test it, so ask for fasting insulin by name.

The rhythm. Test. Change one thing. Retest in about 90 days — blood takes that long to show you the truth.

These are the numbers that matter most for a man's health and length of life. If you can test only some, start with the first six.

Gauge	What it tells you	Lab "normal" or common cut-off	🎯 Aim for
Total testosterone (morning, fasting)	Your main male hormone	about 264–916 ng/dL [9.2–31.8 nmol/L]	**500–1,000 ng/dL [17.3–34.7 nmol/L]**, with no symptoms — read with SHBG
SHBG and **free or bioavailable testosterone**	How much testosterone is free to work	lab range	read together with total
ApoB	The number of cholesterol particles that build plaque	under 105 mg/dL [1.05 g/L]	**under 80 mg/dL [0.80 g/L]**
Fasting insulin	Whether your metabolism is straining	up to about 25 µIU/mL [174 pmol/L]	**2–5 µIU/mL [14–35 pmol/L]**
HbA1c	Three-month average blood sugar	under 5.7% (US); Canada flags from 6.0%	**under 5.4%**
Blood pressure	Pressure on every artery, every beat	under 130/80	**under 120/80**
Waist ÷ height	Belly fat — the fat that matters	—	**under 0.5**
PSA (from 50, or 40–45 if higher risk — a choice to discuss)	Prostate activity	under 4.0 ng/mL [µg/L]	your own trend, not one number
Grip strength	Whole-body strength and future health	—	strong for your age; see Section 15
Push-ups without stopping	Strength and heart fitness	—	40 or more
VO_2 max	Heart and lung fitness	—	top quarter for your age (More Norms page)
Sleep	Hormones, appetite, mood, heart	—	7–8 hours, regular times, no loud snoring

Read them together. A man with a big waist, high insulin, short sleep and low testosterone has one problem, not four. Fix the waist and the sleep and most of the others move with them.

🔍 **The pattern to watch.** Low testosterone + high fasting insulin + waist over half your height + snoring is the most common picture in men over 40. The usual answer is not a hormone. It's the waist.

🔑 **Remember:** A man who knows his numbers cannot be surprised by them.

3 The Men's Playbook 🗓️

Why it matters: These few habits move testosterone, the heart and the waist at the same time. No prescription needed.

The book's men's protocol (Chapters 14, 19 and 21) on one page, built largely on Dr. Peter Attia's exercise framework in *Outlive* — four pillars: strength, steady cardio, top-end cardio and stability. None of it needs a prescription, and almost all of it moves testosterone, the heart and the waist at the same time.

Every week

Practice	The rule	Why
Lift heavy	2–3 times a week, 20–45 minutes. Squat, deadlift, press, row or pull-up, farmer carry, plank. Add weight or reps every week or two	Muscle burns blood sugar, guards the joints and predicts a long life. Strength falls faster than muscle size with age — train it
Steady cardio (Zone 2)	About 3 hours a week at a pace where you can talk, but not comfortably — four 45-minute sessions on a bike, rower, incline walk or easy jog	Builds the engine that burns fat and clears blood sugar; Attia's largest weekly block
Intervals	Once a week: short, hard efforts — 30 seconds hard, 90 seconds easy, 6–8 rounds — or Attia's "4×4": 4 minutes as hard as you can hold, 4 minutes easy, 4–5 rounds	Builds the heart's top-end fitness (VO_2 max), one of the strongest predictors of a long life
Walk	20–30 minutes every day, ideally after meals	Lowers blood sugar and stress, with zero recovery cost
Balance	Every day: a one-leg stand, 10 seconds, eyes open, then harder (Chapter 14)	Stability is the pillar men skip — and the one that keeps you off the floor at 80

Every day

Practice	The rule	Why
Protein	30–40 g per meal, spread across your meals. About 0.7–1 g per lb of target bodyweight a day [1.5–2.2 g per kg]	It takes about 30–40 g in one meal to switch on muscle building
Real fat	Eggs, butter, red meat, olive oil, fish	Testosterone is made from cholesterol. Low-fat diets lower it (Section 8)
Zinc and nitric-oxide foods	Oysters, red meat, pumpkin seeds; beets and leafy greens 🔸	Zinc for testosterone; beets and greens for blood flow
Cut	Seed oils, sugar, processed food and excess alcohol	Alcohol alone lowers testosterone
Morning sun	10–30 minutes outside, within 30 minutes of waking	Sets your body clock — sleep and testosterone follow
Creatine	3–5 g monohydrate a day; the book uses about 10 g when brain and mood are the goal	Solid evidence for strength and muscle with lifting

Practice	The rule	Why
Sleep	7–8 hours, cool and dark, same wake time. Fix snoring	Testosterone production peaks during sleep

Train for your last decade. Attia's "Centenarian Decathlon": list ten things you want to be able to do at 90. Lift a suitcase into an overhead bin. Get up off the floor. Carry groceries up the stairs. Then train backward from them. The benchmarks that go with it — farmer carry, dead hang, grip, push-ups — are in Section 15.

📍 **My week, at 56.** Not a prescription — just what I actually do:

- **Lift** three times a week, about 45 minutes. Kettlebell swings with two 53-lb [24-kg] bells, about 20 reps a set.
- **Sprint:** short sessions of 4 all-out efforts of 30 seconds, with 2–3 minutes easy in between.
- **Walk** a lot, and mix up the workouts so my body never settles into one routine.
- **Sauna** 4–5 times a week.
- **Sleep** 7–8 hours.
- **Red light** three times a week through the winter.

The advanced tools I also use — methylene blue with red light, NMN and the rest of the Chapter 22 stack — sit on top of this, never instead of it. They're in the book (Chapters 19, 22 and 24) with their cautions. The foundation does most of the work.

Supplements — what the evidence says about tongkat ali, zinc, magnesium, vitamin D and maca is in Section 9. Test first.

🔸 *= the book's practice with thinner evidence — low-risk and worth trying, but not proven. Everything else on this page rests on solid evidence.*

🔑 **Remember:** The walk after dinner is the cheapest medicine you will ever refuse.

4 Heart First — Connection, Mood and Forgiveness 🤝

Why it matters: What you carry inside costs energy. It shows up in your stress hormones, your sleep and your heart.

This is the section men skip. Please don't.

The numbers. Suicide rates in Canada are about three times higher in men than in women, and close to three out of four people who die by suicide are men. Men are also far more likely to die from drugs and alcohol. Many of those men never told anyone they were struggling.

Why it happens. Men are often taught to carry things alone — to fix, not to feel. Depression in men often doesn't look like sadness. It looks like anger, irritability, working all the time, drinking more, pulling away from people, or taking risks.

Loneliness is a health risk. In a landmark analysis of 148 studies and over 300,000 people, weak social ties carried a death risk comparable to smoking. Men lose friendships quietly after school, marriage and work take over. Rebuilding them is health care.

✅ **What helps:** - **Name it to one person.** A friend, your wife, a pastor, your doctor. Saying it out loud is the first step out. - **Keep two or three men close** — people you see in person, who would notice if you went quiet. - **Move your body and get outside.** Exercise is one of the most proven treatments for depression. - **Watch the**

drink. Alcohol makes low mood worse, and it's a common way men hide it. - **Ask your doctor** about low mood the same way you'd ask about chest pain. Counselling works. So do medications, when they're needed.

Flat? Check your dopamine before your testosterone 🔸

Pornography, the feed, sugar and the scroll each give the brain a quick spike of dopamine, the chemical of wanting and drive. Spike it often enough and the brain turns its baseline down, so ordinary life starts to feel flat — and that flatness gets blamed on hormones. The fix runs the other way: fewer cheap spikes, and real effort that earns real reward. Start tonight: the phone sleeps outside the bedroom. *(The mechanism is well established; how much it explains in any one man is less certain.)*

Forgiveness — what the body keeps 💝

The book treats unforgiveness as a physical load, not only a spiritual one. Men are taught to carry it quietly. A grudge keeps the stress system running: cortisol and adrenaline stay up, and blood pressure and inflammation follow. In a well-known study, people who replayed a grudge saw their heart rate and blood pressure climb; when they imagined forgiving the same person, both settled. Larger studies link forgiving with lower stress and better mental health. The evidence on hard outcomes like heart attacks is thinner — call it moderate.

What forgiveness is — and isn't. It is a decision, not a feeling; you can choose it while you still hurt. It doesn't excuse what happened, doesn't require you to trust or reconcile with someone unsafe, and doesn't cancel justice. It releases *their* hold on *you*.

The four steps (Chapter 3, "The Power of Forgiveness"). Be specific at every step. Vague forgiveness brings vague freedom.

1. **Choose to forgive.** It's a decision, not a feeling. You can make it while you still hurt. The feeling follows — sometimes right away, sometimes over days.
2. **Name it, feel it, release it — one item at a time.** Take a page. For each thing they did, write it down plainly, then write how it made you feel: abandoned, betrayed, rejected, humiliated, small. Don't rush past the feeling; this is where the heart gets dealt with. Then release that one item out loud: *"When you ***, I felt*** . I choose to forgive you for it. I release you from owing me ___. I give this debt to Jesus."* Then the next item, until the page is done.
3. **Surrender it to Jesus.** Go back to the memory and ask, *"Lord, where were You when this happened?"* Wait. Listen. Let Him show you His presence there and replace the lie that took root — *I'm not enough, I'm not safe, I'm alone* — with His truth.
4. **Pray for them and bless them.** This is the hardest step and the most powerful. Jesus said, "Love your enemies and pray for those who persecute you" (Matthew 5:44, NIV). Pray for the person by name. Ask God to bless them and to begin something new in them. Blessing doesn't mean approving what they did. It cuts the last thread of bitterness. *Forgiveness releases the pain; blessing restores love.*

Deep wounds often take more than one pass, as deeper layers surface. That isn't failure; it's healing in layers. If the wound is abuse, betrayal or violence, walk through it with a counsellor or pastor beside you. You don't have to do it alone.

⚠ **If you are thinking about ending your life, or you're worried about someone who is:** call or text **988**, any time, in Canada or the US. If someone is in immediate danger, call 911.

🔑 **Remember:** You cannot out-train a heart that is still running the ledger. Heart first, then body.

5 Reading It All Together 🧩

Why it matters: One number rarely tells the story. The pattern tells you where to start.

Pattern	What it suggests	Where to look
Low testosterone + big waist + high insulin + snoring	Functional low testosterone from metabolic health — the most common picture	Sections 8, 9, 16
Low testosterone + low or normal LH, lean man, good sleep	The brain's signal may be low — ask about other causes (pituitary, medications)	Section 7
High total testosterone + high SHBG	Less free than it looks — check free testosterone	Section 7
Low total testosterone + low SHBG	Free testosterone may be normal — check before treating	Section 7
New erectile dysfunction, whatever the testosterone	Blood vessels showing damage early — check the heart gauges	Sections 11, 12
PSA rising steadily over several tests	Worth an MRI conversation, whatever the single number	Section 13
On TRT + hematocrit over 54% or rising blood pressure	Dose or form needs review	Section 10
Trying to conceive + TRT, steroids or hot tubs	Stop the heat; never use testosterone to "fix" fertility	Sections 10, 14
Long fasts + hard training + short sleep, and testosterone is low	Under-fuelled and over-stressed — eat more, sleep more, shorten the fasts	Sections 6, 8
Tired, irritable, drinking more, pulling away	Possible depression — talk to someone this week	Section 4

The order to act in. Fix what moves the most at once: the waist, sleep, alcohol, strength training and connection. They move testosterone, insulin, blood pressure, ApoB, mood and erections together. Then deal with the specific gauges.

Part 2 — Going Deeper

The reference: read the section you need. Each one opens with why it matters.

6 Fasting, Cold and Heat — How Hard to Push 🔥

Why it matters: The right dose of stress makes a body stronger. Too much on a tired body does the opposite.

Choose your hard. Being healthy is hard. Being sick is hard. You get to pick which one. Gary Brecka puts it bluntly: "Aging is the aggressive pursuit of comfort." Your body doesn't get stronger *during* the hard thing — it gets stronger afterward, rebuilding past where you pushed it. The catch is the dose: the one that builds you is the one you can recover from. A man sleeping five hours on energy drinks who starts ice baths isn't being brave; he's making another withdrawal from an empty account. Fix sleep first, then add one hard thing at a time.

Fasting — a ladder, not a leap

Level	What to do
Start	A 12-hour overnight fast (7 p.m. to 7 a.m.) for one to two weeks
Build	Extend to 14, then 16 hours over two to three weeks. Daily 16:8 (16 hours fasting, 8-hour eating window)
Intermediate	Add one 24-hour fast a month (dinner to dinner), then weekly as you adapt
Advanced	The 4-2-1 week: 4 days of 16:8, 2 days of normal eating, 1 day with a 24-hour fast

- **During any fast:** about 2–3 quarts [2–3 litres] of water, plus ¼–½ teaspoon of quality salt in water. Black coffee and plain tea are fine.
- **Fasted training is a men's tool** — when your stress, sleep and blood sugar are in good shape. Break the fast with 30–40 g of protein.
- **Low testosterone?** Don't stack long fasts on top of hard training and short sleep. Under-eating lowers testosterone (Section 8).
- ⚠ **Stop if** you get dizzy, shaky or anxious, or start waking at 2–4 a.m. If you take medication for blood sugar or blood pressure, talk to your doctor before fasting longer than 16 hours. Don't fast if you have a history of disordered eating.

Cold — short, regular, uncomfortable

- **The dose:** about 11 minutes a week of uncomfortable cold, spread over 2–4 sessions. The figure comes from one small Danish study 🔸.
- **Start tonight:** end your shower with 30 seconds of cold water. Build to 2–3 minutes over two to four weeks.
- **Plunge:** about 50°F [10°C] for 1–3 minutes, 3–5 times a week. Warm back up by moving, not with a hot shower 🔸.
- **Keep it away from straight after lifting** — cold right after training blunts muscle and strength gains.
- **The cold face plunge:** a bowl of cold water, face in for 10–30 seconds. It's the fastest reset for stress or racing thoughts at bedtime.

- ⚠ Heart disease, high blood pressure, heart-rhythm problems or Raynaud's: get clearance first. Never plunge alone. Never combine a plunge with breath-hold exercises.

Heat — the best-studied of the three

- **Sauna:** 160–195°F [71–91°C] for a traditional dry sauna. Start at the low end for 15 minutes and build to 20–30 minutes, 4 or more times a week. Replace fluids and salt.
- **The evidence:** a Finnish study followed over 2,300 middle-aged men for 20 years. Men who used a sauna 4–7 times a week had about 40% lower death from any cause than once-a-week users.
- **No sauna? A hot bath counts** (Chapter 19).
- ⚠ **Trying to conceive?** Pause the sauna, hot tub and hot baths. Heat lowers sperm counts (Section 14).

7 Testosterone — What It Is and How to Test It ⚖️

Why it matters: A badly timed test can call a healthy man "low." Test it properly before anyone decides anything.

What it is. Testosterone is the main male sex hormone. It builds muscle and bone, drives libido and erections, supports red blood cells, mood, energy and motivation, and helps regulate fat. The testes make most of it, on a signal from the brain (LH). Levels peak in the early morning and fall through the day.

Testosterone in four lines. Sleep makes it — production peaks while you sleep. Stress turns it down. Belly fat converts it into estrogen. And fat on the plate builds it, because it's made from cholesterol. Get those four right and most men's numbers follow.

With age it falls slowly — about 1% a year from middle age, and free testosterone about 2%. A steep drop, or a low level in a younger man, usually has a cause worth finding.

The two forms that matter. - **Total testosterone** is everything in the blood. - **Free testosterone** is the small part that isn't bound up and can act on your cells. Most testosterone is held by a protein called **SHBG** (sex hormone-binding globulin). High SHBG means less is free; low SHBG means more is free. So total testosterone alone can mislead in both directions.

How to test it properly

- ☐ **Morning, before 10 a.m., fasting.** Levels are highest then, and food lowers them.
- ☐ **Not after a bad night, an illness or a heavy training block.** All three lower it for a few days.
- ☐ **Ask for SHBG and free or bioavailable testosterone** with it. Free testosterone should be measured by equilibrium dialysis or calculated from total testosterone, SHBG and albumin. The direct "analog" free-testosterone test is not accurate.
- ☐ **If it's low, repeat it** on a second morning before anyone calls it low.
- ☐ **If it's low twice, ask for LH and FSH** (the brain's signals). They show whether the problem starts in the testes or the brain. Add estradiol and prolactin if your doctor thinks it fits.

Test	Lab range (typical, adult men)	What to know
Total testosterone	about 264–916 ng/dL [9.2–31.8 nmol/L]	The Endocrine Society's lower limit is 264 [9.2]; many urologists use 300 [10.4]

Test	Lab range (typical, adult men)	What to know
SHBG	varies by lab, roughly 15–75 nmol/L, higher with age	Rises with age, low insulin, a lean build, and some liver and thyroid conditions; falls with insulin resistance and belly fat

Low testosterone, as doctors define it, means a consistently low morning level *and* symptoms — low libido, fewer morning erections, low energy, loss of muscle, low mood. A number alone, without symptoms, isn't a diagnosis. Symptoms alone, with a normal number, aren't either.

What about "optimal"? The book's target is 500–1,000 ng/dL [17.3–34.7 nmol/L]. That's the book's target, not a medical standard — guidelines haven't set an optimal range. For comparison, the average man in his 50s tests around 400–500 ng/dL [13.9–17.3 nmol/L]. A man who feels well and is strong, with a level in the lab range, still doesn't need a prescription to chase a number. And if you're 25, your testosterone is 400 and you feel like a flat tire, hear this: that is not your sentence. It is a reading. The same basics in this booklet are what move it. Test, change, retest in 90 days.

📍 **My numbers.** Total testosterone 1,058 ng/dL [36.7 nmol/L] in February 2026, at 55 — high for any age. But my SHBG was 79.9 nmol/L, above the top of the usual male range, so less is free than the big number suggests. Very low insulin pushes the liver to make more SHBG — the mirror image of metabolic syndrome.

🔑 **Remember:** Testosterone is fuel, not the deed. Sleep makes it. Stress turns it down. Fat converts it. Test it.

8 What Lowers Testosterone 📉

Why it matters: Low testosterone is usually a report on your waist, sleep and stress. Fix those before you treat the number.

In rough order of how much each matters for most men:

Cause	What happens	How strong the evidence
Belly fat and insulin resistance	Fat tissue converts testosterone into estrogen, and insulin resistance lowers SHBG and dampens the brain's signal. In a review of 24 studies, losing weight raised testosterone — and the more weight lost, the bigger the rise.	Solid
Short sleep	Ten young men limited to five hours a night for one week dropped their daytime testosterone 10–15% — about what ten to fifteen years of aging does.	Solid but small study
Alcohol	Heavy and regular drinking lowers testosterone and damages the testes directly.	Solid
Chronic stress, overtraining, under-eating	Long-running stress hormones and too few calories for the training load turn down the brain's signal to the testes.	Solid
A low-fat diet	In six controlled diet studies of 206 men, testosterone was 10–15% lower on a low-fat diet than a higher-fat one, and up to 26% lower on low-fat vegetarian diets.	Moderate — small, older studies, but consistent

Cause	What happens	How strong the evidence
Some medications	Opioid painkillers strongly suppress testosterone. Statins lower it about 4% on average, more in some men. Some others — high-dose steroids, some antidepressants, some prostate and hair-loss drugs — can too.	Solid for opioids and statins
Anabolic steroids and TRT	Outside testosterone shuts the body's own production down, sometimes for a long time after stopping.	Solid
Sleep apnea	Linked to low testosterone, but mostly through the extra weight that comes with it. In two reviews, treating apnea with CPAP alone did not raise testosterone. Treat apnea for your heart and brain; lose the waist for your hormones.	Moderate
Hormone-disrupting chemicals	Some plastics (phthalates, BPA) and pesticides act like weak hormones in the lab and in animals. Human evidence is real but weaker than the headlines. Reducing exposure is cheap and sensible.	Thin to moderate

🔍 **What this means.** The biggest levers are the boring ones: the waist, the sleep and the drink. A pill or a supplement can't outrun any of them.

9 What Raises It — and What Doesn't 📈

Why it matters: The foundations raise testosterone more reliably than any supplement, and they help everything else too.

What works — the foundations.

- **Lose the belly fat.** The strongest natural lever there is, and the rise is largest in men who lose the most. Waist under half your height is the target.
- **Lift heavy.** Two to three sessions a week of squats, deadlifts, presses and pulls. Strength training improves body composition and insulin sensitivity — which is how it helps testosterone over time.
- **Sleep seven to eight hours** at regular times, in a cool, dark room. Fix snoring.
- **Eat enough, and keep the fat.** Eggs, olive oil, fish, some butter and red meat. Don't run long low-fat or very-low-calorie stretches unless you're losing weight on purpose.
- **Cut back alcohol.** Canada's 2023 guidance: two drinks a week or fewer is low risk; three to six is moderate; seven or more is increasingly high. No amount is risk-free. You don't have to give it up. Know what it is, and decide on purpose — don't let it decide for you.
- **Fix a deficiency if you have one.** Zinc and vitamin D matter for testosterone if you're low. Adding more on top of normal levels doesn't raise it further.

Supplements — what the evidence actually says.

Supplement	Evidence on testosterone	Notes
Tongkat ali (*Eurycoma longifolia*), 400–600 mg	Moderate to low. A 2022 review of five small randomized trials found a real rise, clearest in men who started low. Most trials tested one company's extract, and the results varied a lot.	The book's choice, cycled 8 weeks on, 2 off. Buy a standardized extract from a tested brand.
Zinc, 15–30 mg	Helps only if you're low.	More is not better; high doses cause copper deficiency.
Vitamin D	Mixed. Helps overall health if you're low; small or no effect on testosterone in men who aren't.	Test first; see *Bloodwork, Plainly*.
Magnesium	Small studies, mostly in athletes or deficient men.	Worth taking for sleep and blood sugar anyway.
Maca	May help libido; doesn't raise testosterone.	
Most "T-booster" blends	Thin. Many contain little of what the label says.	Save your money.

⚠ **What doesn't work, or harms.** Fenugreek, tribulus and D-aspartic acid have mixed or negative trials. "SARMs" and gray-market hormones are drugs, not supplements, and can shut your own production down. Anything that raises testosterone fast is either a hormone or doesn't work.

📍 **My numbers.** My testosterone at 55 came from the foundations, not a prescription. Heavy lifting three times a week. Real food with plenty of protein and fat. Walking and sleep. And the part I'd underline: forgiveness and peace. The book tells that story in Chapter 9.

10 Testosterone Therapy (TRT), Honestly 💉

Why it matters: It's real medicine for men who are truly low, with costs every man should know before he starts.

Testosterone therapy is a real treatment for a real condition. It is also one of the most over-sold products in men's health. Both are true.

Who it's for. Men with consistently low morning testosterone on at least two tests, real symptoms, and a cause that has been looked for. For them it can restore libido, energy, mood, bone and muscle.

Who it isn't for. Men with normal levels who are tired. Men who haven't fixed sleep, weight and alcohol first. And men who want children — see below.

The heart question — what the big trial found

For years the label warned that testosterone might raise the risk of heart attack and stroke. The question was finally tested properly in **TRAVERSE**. It followed 5,246 men aged 45 to 80 with low testosterone and heart disease or high risk of it. They got testosterone gel or a placebo for about three years.

- **Heart attacks, strokes and heart deaths: no increase.** 7.0% on testosterone against 7.3% on placebo.
- **But some things did go up:** atrial fibrillation (3.5% against 2.4%), acute kidney injury (2.3% against 1.5%) and blood clots in the lungs (0.9% against 0.5%).
- **It doesn't cover everything.** The trial used normal replacement doses in men who were truly low. It says nothing about high doses, injections at bodybuilding levels, or men with normal levels.

In February 2025 the FDA removed the heart-attack-and-stroke boxed warning from testosterone products and added a new warning: **testosterone raises blood pressure**, across every product tested.

The other things to know

- **It shuts down sperm production.** Outside testosterone tells the brain to stop signalling the testes. Sperm counts can fall to zero. If you want children — now or later — say so before you start; there are other treatments.
- **It thickens the blood.** Hematocrit (the share of blood that is red cells) rises. Guidelines say to stop or lower the dose above 54%. This needs checking.
- **It's usually long-term.** Your own production stays suppressed while you're on it and can take months or longer to return after stopping.
- **It raises blood pressure.** Check it before and during.

✅ **If you start, monitoring should include:** testosterone, hematocrit, blood pressure and lipids, plus PSA if you're 55–69 (from 40 if higher risk). Test before you start, at three to six months, then yearly.

⚠ **About online and walk-in "low T" clinics.** Some prescribe to young men with normal levels, skip the repeat test, or never check hematocrit or fertility. If a clinic doesn't repeat your morning test, ask about children, or plan your monitoring, find another clinic.

11 Erections — Your Earliest Heart Test ❤️

Why it matters: This is often the first visible sign of artery trouble, years before the heart shows it.

An erection is a blood-vessel event first and a hormone event second. The arteries that supply the penis are smaller than the ones that feed the heart, and they often show damage first.

The evidence. A study followed 9,457 men for up to seven years. Those who developed erectile dysfunction had a 25% higher risk of heart attack, stroke and other heart events. That's in the same range as smoking. The researchers concluded that new erectile dysfunction should prompt a look for heart disease.

✅ **If it shows up, test before you treat:** - ApoB and a full lipid panel - Fasting insulin, fasting glucose and HbA1c - Blood pressure - Morning testosterone with SHBG — but not testosterone alone

A pill that improves blood flow helps the symptom. It doesn't touch the arteries. Use one if you need it — and find out why you need it. Erectile trouble is mostly a blood-vessel problem, not a hormone problem: it's a heart test you just failed early. Treat it as that.

What helps erections at the root: the same things that help the heart. Lose belly fat, exercise, don't smoke, lower your blood pressure and sugar, drink less and sleep better.

🔍 **Sex and long life.** You may have seen the claim that more sex adds years to your life. Men with active sex lives do live longer in large studies — but that's mostly because a healthy body and a good marriage make for both. No trial shows that more sex itself extends life. Treat a healthy sex life as a sign that things are working, not a prescription.

Mouthwash — the habit that may block nitric oxide 🦷

Bacteria on your tongue turn the nitrates in greens and beets into nitrite. Your body makes that into nitric oxide, the gas that relaxes blood vessels and drives an erection. Antiseptic mouthwash kills those bacteria. In a controlled trial, chlorhexidine mouthwash cut nitrite in the mouth by about 90% and raised systolic blood pressure 2–3.5 mmHg. In studies of over 1,000 adults, using mouthwash twice a day or more went with an 85%

higher risk of high blood pressure and a 55% higher risk of prediabetes. That's a link, not proof — but the trial points the same way.

✅ Brush, floss and scrape your tongue. Skip daily antiseptic mouthwash; if you want a rinse, use salt water or baking soda. A mouthwash your dentist prescribed is a short course, not a daily habit.

12 The Heart — The Killer You Can See Coming 🫀

Why it matters: Heart disease often gives no warning, but the numbers that predict it are cheap and visible years ahead.

Heart disease is the second-biggest killer of Canadian men after cancer, and the first in the US. It often arrives with no warning — the first symptom is the heart attack. The good news: the numbers that predict it are cheap and visible years ahead.

Gauge	🎯 Aim for	Why
ApoB	under 80 mg/dL [0.80 g/L]	Counts the particles that build plaque
Lp(a), once in your life	under 75 nmol/L	An inherited sticky particle; if high, be stricter on everything else
Triglycerides ÷ HDL	under 1.0 (mg/dL) [under 0.44 mmol/L]	Reads insulin resistance and particle size
Blood pressure	under 120/80	The most common, most fixable risk
Fasting insulin	2–5 µIU/mL [14–35 pmol/L]	The metabolic root under most heart disease
hsCRP	under 0.36 mg/L — "below detection" is the goal	How much fire is in the artery wall. Lab "normal" is under 3; normal is where a sick population sits
Calcium score or CT angiogram	zero, or no growth	Shows plaque directly — ask over 40 with risk factors

For men on a statin, or thinking about one: statins lower testosterone about 4% on average, more in some men. Ezetimibe and the PCSK9 drugs haven't shown the same effect. Test testosterone before you start and three months in. The full story, including statin safety, is in *Cholesterol, Plainly*.

📍 **My numbers.** ApoB 144 mg/dL [1.44 g/L] in February 2026, 109 [1.09] by November — falling, still above 80. Triglycerides ÷ HDL 0.46 [0.20] in February, 0.54 [0.24] in April and 0.33 [0.15] in November — elite every time. hsCRP below detection. Lp(a) under 10 nmol/L. A CT angiogram found early, mostly soft plaque. Blood pressure 120/80, resting heart rate in the 40s. On those numbers the standard risk calculator (Framingham) gives me about a 9% chance of a heart attack or stroke in ten years; Canada's version doubles it to about 18% because my father had his first bypass at 51. Healthy engine, too many trucks for too long — which is why I measure instead of assume.

🔍 **A low resting pulse.** Years of training make the heart stronger, so it pumps more per beat and needs fewer beats. A resting rate in the 40s, or even the high 30s, is common in fit men. It's only a concern if it comes with dizziness, fainting or unusual breathlessness — then get it checked.

Seed oils — what's solid and what's argued 🛢️

The book says cut out canola, soybean, corn, sunflower and similar oils. Mainstream heart guidelines still recommend them, and the large studies mostly don't show harm. But re-analysed old trials by Dr. Christopher Ramsden found that swapping saturated fat for these oils lowered cholesterol without lowering deaths. Both sides agree on this much: most seed oil comes in fried and ultra-processed food.

✅ **The line both sides can live with:** cook with olive oil, avocado oil, butter, ghee or tallow, and cut packaged, fried and fast food. "Vegetable oil" on a label usually means soybean oil.

13 The Prostate, PSA — and the Other Screens 🌰

Why it matters: A few screens save lives, and knowing what a PSA number can and can't say saves you from false alarms.

PSA is a protein the prostate releases into the blood. It rises with cancer — but also with an enlarged prostate, infection, recent ejaculation and a long bike ride. So one number can mislead.

Should you test? The guidelines disagree. US and Canadian urologists say offer it from about 50 (40–45 if higher risk), as a shared decision. The Canadian Task Force says don't screen routinely. In the trials, screening men 55–69 prevented about 1–2 prostate cancer deaths per 1,000 men over 13 years. The cost is false alarms and biopsies — now reduced by watching slow cancers and using MRI before biopsy.

Higher risk — start at 40–45: a father or brother with prostate cancer, Black ancestry, or a BRCA2-type gene.

✅ **If you test:** no ejaculation or long cycling for 48 hours before. Watch the **trend**, not one number. A high result means repeat it, then talk about an MRI — not straight to biopsy.

See your doctor if you're up at night to urinate, have a weak stream, or feel your bladder isn't empty. It's common and treatable.

The other screens

- **Colon:** the screen with the clearest proof of lives saved. A home stool test (FIT) every two years from 50 (45 in Ontario, PEI and the US; 40 with a family history). Bleeding or a change in bowel habits gets checked at any age.
- **Skin:** a yearly check if you've had bad sunburns or work outdoors. A new or changing mole gets seen the same month.
- **Blood pressure:** use a home arm cuff — seated, rested five minutes, two readings, a few mornings a week. Under 120/80 is the goal; a home average over 135/85 is a call to your doctor.

14 Fertility and Sperm 🧬

Why it matters: Sperm take about three months to make, so what you change today shows up next season.

The trend. A 2022 analysis of 57,000 men in 53 countries found average sperm concentration fell by about half from 1973 to 2018, from about 101 million per mL to 49 million. The fall seems to have sped up since 2000. Some experts think better counting methods explain part of it. Either way, the average is still within the normal range, but more men are now near the line.

Sperm take about two and a half to three months to make and mature. Anything you change today shows up in a semen test that much later. Start early if you're planning a family.

What lowers sperm count and quality:

- **Heat.** The testes sit outside the body because sperm need to be about 4–5°F [2–3°C] cooler than the core. Hot tubs, hot baths, saunas, laptops on the lap and long hours sitting can all lower counts. In one small study, about half of eleven infertile men who stopped hot tubs and hot baths saw their moving-sperm counts rise almost sixfold within three to six months.
- **Testosterone therapy, anabolic steroids and SARMs** — they can shut sperm production down entirely.
- **Smoking, cannabis and heavy alcohol.**
- **Excess weight and insulin resistance.**
- **Some medications** — talk to your doctor before you stop anything.

What helps: a healthy weight, no smoking, keeping things cool, exercise and real food. Treat any infection or varicocele, an enlarged vein in the scrotum that's common and fixable.

✅ **If you're trying to conceive and it hasn't happened in a year** (six months if your partner is over 35), both of you get checked. A semen analysis is cheap, simple and often skipped — about half of infertility involves the man.

15 Strength — The Numbers That Predict a Long Life 💪

Why it matters: Muscle is the organ that keeps you independent at 80, and grip strength predicts lifespan.

Muscle is not vanity. It's the organ that burns most of your blood sugar, protects your joints, keeps you upright at 80, and predicts how long you'll live.

Grip strength. A study tracked nearly 140,000 people in 17 countries. Every 11-lb [5 kg] drop in grip meant a 16% higher risk of death from any cause and 17% higher risk of heart death. A grip test costs nothing and predicts better than blood pressure did in that study.

Push-ups. A ten-year study followed 1,104 firefighters, average age 40. Men who could do more than 40 push-ups had 96% fewer heart events than men who managed fewer than 10. Push-ups predicted better than the treadmill test. Those were active, middle-aged men, so read it as a finding about men like them.

Grip strength by age — men

Age	Low	Average	Strong
18–29	under 85 [39]	104 [47]	123+ [56+]
30–39	under 90 [41]	110 [50]	130+ [59+]
40–49	under 88 [40]	105 [48]	123+ [56+]
50–59	under 80 [36]	97 [44]	114+ [52+]
60–69	under 72 [33]	90 [41]	108+ [49+]
70–80	under 59 [27]	76 [34]	93+ [42+]

Grip in lb [kg], best squeeze of your stronger hand. "Low" and "strong" mark roughly the bottom and top sixth of US adults. Source: Bohannon et al., American Journal of Occupational Therapy 2019 (NHANES 2011–2014

and NIH Toolbox).

What to do with your number: below average? Add farmer carries and dead hangs twice a week and retest in three months. Grip responds fast.

📍 **Mine:** 151 lb [68.5 kg] at 56 — well above "strong" for my age group (114+ lb [52+ kg]).

Push-ups by age — men

Full push-ups, chest to a fist-height off the floor, body straight.

Age	Excellent	Very good	Good	Fair	Needs improvement
20–29	36+	29–35	22–28	17–21	16 or fewer
30–39	30+	22–29	17–21	12–16	11 or fewer
40–49	25+	17–24	13–16	10–12	9 or fewer
50–59	21+	13–20	10–12	7–9	6 or fewer
60–69	18+	11–17	8–10	5–7	4 or fewer

Push-ups in a row, without stopping, with good form. Source: Canadian Society for Exercise Physiology (CSEP-PATH, 2019) — the same table used in ACSM's Guidelines for Exercise Testing and Prescription.

📍 **Mine:** 50 at 56 — more than double "excellent" for my age group (21+).

The firefighter study's line is 40 — well above "excellent" for most ages, and that's the point.

The four benchmarks — test them tonight 🏋

No lab, almost no equipment. Together they check grip, shoulders, legs, core and heart. Write the numbers down and retest every 90 days. Only push-ups have age norms (above); for the other three, beat your own last test.

Test	How	Strong target	📍 Mine at 56
Push-ups	Full push-ups, body straight, no stopping	40 or more	50
Wall sit	Back flat on a wall, thighs level with the floor	5 minutes	5 minutes
Dead hang	Hang from a bar, arms straight, feet off the floor	2 minutes total	2 minutes
Farmer carry	Half your bodyweight in each hand, walk	60 seconds	Meets the standard

Targets: the book's, from Dr. Peter Attia. **What it took me:** three lifting sessions a week, about 45 minutes each. That's all.

Below target? Climb the ladder (Chapter 14): - **Push-ups:** can't do 10? Start on the kitchen counter. Add one or two a session. - **Wall sit:** add 15–30 seconds a week. - **Dead hang:** 15 s → 30 s → 60 s → 90 s → 2 min. Add 5–10 seconds a week. - **Farmer carry:** 25% of bodyweight in each hand → 35% → 50%. Once a week.

📍 The knee they wanted to replace

Basketball cost me four knee surgeries and most of my meniscus, the cushion inside the knee. At 40, an orthopedic surgeon told me I had severe osteoarthritis and needed a knee replacement. I had a fair amount of

pain, so I took it seriously. I saw about four other surgeons. Every one of them said I was too young.

So I did the other thing: I moved more. I built the muscles around the knee and worked on mobility, to keep the joint as open as I could.

I'm 56 now, and I still have my own knee. It grinds — the cartilage hasn't grown back, and I don't claim it has. An X-ray in April 2026 still showed advanced arthritis in all three parts of the knee. But it's strong, close to pain-free, and it holds a 5-minute wall sit.

That's the point of this section. Strong muscle around a worn joint carries load the joint can't. It's why exercise is the first treatment in the major osteoarthritis guidelines: it reliably cuts pain and improves how the joint works. A diagnosis isn't always a sentence. Sometimes it's an assignment.

Add the kettlebell swing. It's the book's go-to hip movement (Chapter 14), working legs, back, grip and heart in one move. In a small study, six weeks of swings twice a week raised young men's squat strength about 10% and their jump about 20%. Start with one 35-lb [16-kg] bell, two hands, 10 swings every minute for 10 minutes. Learn the hinge first: the power comes from the hips, not the arms or the low back.

Strength for your size ⚖️

Lifting a heavy weight isn't the point. Being strong *for your body* is — that's what gets you up the stairs and off the floor. Researchers measure it as grip divided by body weight. In a US study of 4,066 adults, every 0.05 drop raised the odds of diabetes by about a quarter. The weakest, highest-risk men sat at or below these lines:

Age	20–39	40–59	60–80
Men — highest risk at or below	0.56	0.50	0.45

Source: Peterson et al., Sports Medicine 2016. A link, not proof. The line is the floor, not the goal.

Do yours: best grip ÷ body weight (kg ÷ kg or lb ÷ lb). 📍 Mine: 151 lb ÷ 220 lb [68.5 kg ÷ 100 kg] = **0.69**, against a line of 0.50. Losing belly fat raises this number even if your grip doesn't change.

🔑 **Remember:** Nobody feels the muscle leaving. Everybody feels it gone.

✅ **What builds it:** lift heavy two to three times a week. Eat protein at every meal (about 0.7–1 g per lb of target bodyweight [1.5–2.2 g per kg]). Walk daily. Add short, hard intervals once a week. Your waist should be under half your height — BMI misleads muscular men, and a DEXA scan shows what you're really carrying. *(Heart-and-lung fitness and chair-stand norms are on the More Norms page at the back.)*

The GLP-1 trap — Ozempic, Wegovy, Mounjaro, Zepbound 💊

These drugs copy GLP-1, the gut hormone that tells you you're full. Your own GLP-1 lasts minutes; the drug lasts a week, so the signal never switches off. They do real good — in the SELECT trial, semaglutide cut major heart events by 20% in people with heart disease. But the costs are real too:

- **Muscle goes with the fat** — Dr. Peter Attia calls it ending up "smaller but fatter."
- **The weight comes back.** Most people regain about two-thirds within a year of stopping.
- **Side effects:** nausea and constipation are common; pancreatitis, gallbladder disease, bowel blockage and, very rarely, sudden vision loss are on the labels. Tell any surgical team you take it.

✅ **If you're on one, protect your muscle from day one:** lift two to three times a week, eat about 1 g of protein per lb of target bodyweight [2.2 g per kg], and track body composition, not just weight.

Your own body makes GLP-1 at every meal, most of all with protein, fibre and slow eating. Medication can be a bridge. It isn't the foundation. *(Full detail, including the lawsuits and label warnings, is in the book.)*

16 Sleep and Sleep Apnea 😴

Why it matters: Sleep is when testosterone production peaks and the brain clears itself. Short sleep costs both.

Sleep is also when appetite and blood sugar reset. One week of five-hour nights dropped young men's testosterone 10–15%. Short sleep also raises blood pressure, insulin resistance and the risk of accidents.

Sleep apnea is when the airway closes over and over during sleep, cutting oxygen and waking the brain dozens of times an hour — usually without you knowing. It's far more common in men and rises with weight. Untreated, it raises the risk of high blood pressure, atrial fibrillation, heart attack, stroke and car crashes.

Signs to take seriously (the STOP-BANG questions):

- ☐ **S**noring that's loud
- ☐ **T**ired during the day
- ☐ **O**bserved pauses in breathing at night
- ☐ **P**ressure — high blood pressure
- ☐ **B**MI over 35
- ☐ **A**ge over 50
- ☐ **N**eck over about 16 in [40 cm]
- ☐ **G**ender — male

Three or more: ask your doctor about a sleep study. Many are now done at home.

The honest part about testosterone. Apnea and low testosterone travel together, but mostly because of the weight behind both. In two reviews of the evidence, treating apnea with CPAP alone did not raise testosterone. Treat the apnea because it protects your heart and brain. Lose the waist because that's what moves the hormones — and often the apnea too.

✅ **The basics:** seven to eight hours of real sleep. The same wake time every day. Morning light outside. A cool, dark room. Side sleeping if you snore. Or use the book's 10-3-2-1-0 countdown: no caffeine 10 hours before bed, no food or alcohol 3 hours before, no work 2 hours before, no screens 1 hour before, and zero snoozes. Full detail in Chapter 15.

How much is enough? In the largest studies, the lowest risk is about 6½ to 8 hours asleep (not time in bed), with the sweet spot near 7. Under 6 and over 9 both carry higher risk. Your body and your mornings will tell you where you sit.

🔑 **Remember:** Testosterone is made in the dark.

17 Questions to Ask Your Doctor 🗣️

Bring this page. A good doctor will welcome it.

About testosterone

1. Can we test total testosterone with SHBG and free testosterone, in the morning, fasting — and repeat it before deciding anything?
2. If it's low, what's causing it — and can we check LH, FSH, prolactin and my medications?
3. If we're talking about testosterone therapy: what will it do to my fertility, my hematocrit and my blood pressure, and how will we monitor them?

About the heart

4. Can we check ApoB, Lp(a) once, fasting insulin and HbA1c with my next panel?
5. I've noticed changes in my erections. Should we look at my heart risk?
6. Would a calcium score or CT angiogram make sense for me?

About the prostate

7. Given my age and family history, should I have a PSA test — and what would we do with the result?
8. If my PSA is high, can we repeat it and consider an MRI before a biopsy?

About sleep, mood and the rest

9. I snore and I'm tired during the day. Should I have a sleep study?
10. I've been low, irritable or drinking more. Can we talk about that?

If a doctor won't order a test or explain a result, you are allowed to ask why, get a second opinion, or order it privately. You are a participant in your health, not a passenger.

18 My Tracker 📋

Print this page. Fill it in after each test. Trends tell the truth.

Gauge	Aim for	Date: _____	Date: _____	Date: _____	Date: _____
Total testosterone (morning, fasting)	500–1,000 ng/dL [17.3–34.7 nmol/L]				
SHBG / free testosterone	read together				
ApoB	under 80 mg/dL [0.80 g/L]				
Fasting insulin	2–5 µIU/mL [14–35 pmol/L]				
HbA1c	under 5.4%				
Blood pressure	under 120/80				
Waist ÷ height	under 0.5				
PSA (if testing)	your trend				
Hematocrit (if on TRT)	under 54%				
Grip strength	strong for your age				
Grip ÷ body weight	well above your age line (Section 15)				
Push-ups without stopping	40+				
Wall sit	5 min				
Dead hang	2 min				
Farmer carry (½ bodyweight each hand)	60 s				
VO_2 max	top quarter for your age				
Chair stands in 30 s (60+)	above average for your age				
Sleep (hours, snoring)	7–8, no loud snoring				
Notes (sleep, alcohol, training, stress)					

More Norms 📊

For readers who want to see where they stand on heart-and-lung fitness and leg strength.

Heart and lung fitness (VO_2 max) by age — men

VO_2 max is the most oxygen your body can use at full effort. It's the strongest fitness predictor of a long life. In a Cleveland Clinic study of 122,007 adults, the least fit quarter had about five times the risk of death of the fittest 2.5%. A lab treadmill test with a breathing mask measures it; many watches estimate it.

Age	Low	Average	High	Top 10%
20–29	under 40.1	48.0	55.2+	61.8+
30–39	under 35.9	42.4	49.2+	56.5+
40–49	under 31.9	37.8	45.0+	52.1+
50–59	under 27.1	32.6	39.7+	45.6+
60–69	under 23.7	28.2	34.5+	40.3+
70–79	under 20.4	24.4	30.4+	36.6+

VO_2 max in mL/kg/min (the same unit in the US and Canada), measured on a treadmill. "Low" is the bottom quarter, "high" the top quarter. Source: Kaminsky et al., Mayo Clinic Proceedings 2015 (FRIEND registry, US).

What to do with your number: the Zone 2 hours and weekly intervals in the Playbook move it. Climbing from the bottom quarter to the middle is the biggest single drop in risk you can make.

Chair stands in 30 seconds, ages 60 and up — men

Sit in a firm chair with no arms (seat about 17 in [43 cm] high), arms crossed over your chest. Stand all the way up and sit back down as many times as you can in 30 seconds. It measures leg strength — the strength that keeps you getting up, climbing stairs and not falling.

Age	Below average	Average	Above average
60–64	under 14	14–19	20+
65–69	under 12	12–18	19+
70–74	under 12	12–17	18+
75–79	under 11	11–17	18+
80–84	under 10	10–15	16+
85–89	under 8	8–14	15+
90–94	under 7	7–12	13+

Source: Rikli & Jones, Senior Fitness Test (US adults 60–94). "Average" is the middle half of people your age. The CDC's fall-prevention program (STEADI) treats a below-average score as a sign of higher fall risk.

Key Takeaways 💡

1. Men live about four and a half years less than women, and most of the gap is preventable — heart disease, metabolic disease, alcohol, drugs, accidents and suicide.
2. Most of what wears men down is built by how they live, so most of it can be reversed the same way. Fix the root before the quick fix. Low testosterone is usually a report on the rest of your life. The waist, sleep and alcohol move it more than any supplement.
3. Testosterone therapy is real medicine for men who are truly low — and it shuts down sperm, thickens the blood and raises blood pressure. Know that before you start.
4. Your erections are your earliest heart test. New erectile dysfunction means check the heart, not just the hormone.
5. PSA is a choice to make with your doctor, and the trend matters more than one number.
6. Strength — especially strength for your size — predicts a long life. Grip, push-ups and a waist under half your height are numbers worth tracking.
7. Snoring and daytime tiredness deserve a sleep study.
8. Know your numbers. Normal isn't the target — optimal is. Test, change one thing, retest in 90 days.
9. Heart first, then body. Unforgiveness and buried emotion cost real energy. Forgive specifically, and bless the one who hurt you.
10. Asking for help is strength. If you're struggling, tell one person this week. In crisis, call or text 988.

Action Steps ✅

1. 🩸 Book a morning, fasting blood test: testosterone with SHBG and free testosterone, ApoB, fasting insulin and HbA1c.
2. 📏 Measure your waist at the belly button and divide by your height. Under 0.5 is the goal.
3. 💪 Test the four benchmarks — push-ups, wall sit, dead hang and farmer carry (Section 15) — and write them down.
4. 😴 Go through the STOP-BANG list. Three or more: ask for a sleep study.
5. 🌰 At 50 (40–45 if you're higher risk), have the PSA conversation with your doctor.
6. 🤝 Name one man you'll call this week, and call him.
7. 🩺 Check your blood pressure at home, and book your colon screen if you're due (Section 13).
8. 💝 Take one page and walk through the four forgiveness steps for one person (Section 4).
9. 🔁 Retest what you're changing in 8–12 weeks.

Reflection Questions 🤔

1. Which warning light — waist, sleep, erections, snoring, mood — have you been explaining away?
2. If your testosterone came back low tomorrow, what would you fix first before asking for a prescription?
3. Who in your life would notice if you went quiet — and when did you last tell them how you're really doing?
4. Who are you still holding something against — and what is it costing your body?

Sources: Heavenly Health Hacks, Fourth Edition (Chapters 3, 6, 9, 14, 15, 19 and 21); Dr. Peter Attia, Outlive (2023), peterattiamd.com and The Drive podcast; Statistics Canada, life expectancy and health-adjusted life expectancy, 2023; Public Health Agency of Canada, Suicide in Canada key statistics, and Mental Health Commission of Canada, Mental Health and Suicide Prevention in Men – Evidence Brief (2022); Bhasin et al., Endocrine

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