

YOUR PANEL	BASELINE · ON · AFTER
FBC · Haematocrit	☒
U&Es · Cystatin C · ACR	☒
LFTs · GGT · CK	☒
Lipids · ApoB · Lp(a)	☒
HbA1c · Fasting insulin	☐
Testosterone · E2 · SHBG · LH · FSH	☐
Thyroid · PSA · hs-CRP	☐
Home blood pressure	☐

— A FREE GUIDE FROM JACK WALL

THE BLOODS CHECKLIST

Normal for who?

What to test before you start, what to watch while you're on, and what to check after. Monitoring and red lines, written plainly. No doses, no protocols, no sales pitch for gear.

— WHY THIS EXISTS

NOBODY IN THIS SPORT TELLS YOU

what to actually check.

Most of the questions in my DMs are about what to run. Very few are about what to test. That's backwards, and it's why I keep seeing lads with a haematocrit through the roof, blood pressure they've never measured and a GP letter that says "normal".

This industry runs on people saying one thing and doing another. I'd rather be straight with you. Plenty of the men I coach are enhanced. I'm not here to preach at you, and I'm not here to sell you a stack either. I don't give out doses or protocols, in this guide or in my DMs. What I will do is show you exactly what to watch, so whatever you decide, you're making that call with your eyes open.

I've read over 300 client blood panels. My day job is root-cause analysis on safety-critical systems in the nuclear industry, where nobody signs anything off on a feeling. You measure, you trend it, and you act when the numbers tell you to. Your body deserves the same standard.

Everything in here is built on the J3U framework I'm certified in and the physiology textbooks I coach from, with sources on every page. Use it alongside your GP.

Read it properly.J



JACK WALL • CLASSIC PHYSIQUE

300+

CLIENT PANELS READ

59 → 75

MY OWN EGFR, 275 LB VS 50 LB
LIGHTER (PAGE 10)

J3U

CERTIFIED COACH

— YOUR ROADMAP

WHAT'S INSIDE

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HOW TO USE IT

Read it once, then take page 05 to your GP or a private lab before anything changes. Use the log on page 17 for every draw, and judge each result against your own baseline as well as the lab's range.

WHAT IT ISN'T

It isn't medical advice, and it isn't a protocol. There are no doses, cycles or "what to run" anywhere in here. Results outside range go to your GP, and anything on page 15 goes where page 15 says, without waiting.

— WHY TEST AT ALL

FIVE TRUTHS

about your bloods.

01 • THE HEART GOES FIRST

The order of risk is heart, kidneys, brain, then liver. The liver takes the biggest hit in the short term but it's the most resilient. The heart is the leading cause of early death in bodybuilders, and autopsies of steroid users most commonly show cardiovascular disease.

02 • HARM SCALES WITH DOSE X DURATION

Total exposure is what matters. A lower amount run for years can add up to the same damage as a higher amount run briefly. In one cohort of young male users followed for about 12 years, mortality was roughly 3x that of non-users and rose with how long they'd used. That's an association and it doesn't prove cause, but it's still a number worth respecting.

03 • THE BIG ONES ARE SILENT

High blood pressure doesn't feel like anything, because the body's pressure sensors reset to the new level within a day or two. You can lose 75 to 80% of your kidney's filtering units before the basics stop working, and they don't grow back. By the time you feel it, it's late.

04 • "NORMAL" ISN'T A TARGET

A lab range describes the population, from a pensioner to a teenager. It doesn't describe you at 100 kg with a lot of muscle. Some markers read high just because you're big; others rise late, after the damage has started. That's why a baseline matters.

05 • TREND BEATS A SINGLE NUMBER

One result is a snapshot. Same lab, same conditions, plotted over time, is information. And symptoms override bloods: if you feel rough, a "normal" panel doesn't make you fine.

Sources: J3U Level One M5, M6 • Guyton & Hall Physiology 13e p.222, p.325, p.435

01

CHAPTER 01

THE BASELINE

panel.

Bloods before anything changes, and again after any change. Without a baseline, nobody can tell you what's moved. These are the UK lab names to ask for.

ASK FOR

WHY IT MATTERS

Full blood count (FBC)

Haematocrit is the one to watch. Your starting value is what every later rise gets judged against.

U&Es + cystatin C

Kidney function. Creatinine comes from muscle, so big lifters read "worse" than they are. A cystatin C-based eGFR fixes that.

Urine ACR + urinalysis

Albumin in the urine is the earliest sign of kidney filter damage, often before eGFR moves, and muscle doesn't skew it.

LFTs + GGT + CK

Liver enzymes also leak from trained muscle. GGT and CK are what separate a hard leg session from a liver problem.

Lipids + ApoB + Lp(a)

LDL and ApoB drive artery disease. Lp(a) is genetic, raised in about a quarter of people, and nearly doubles the risk. Test it once.

Fasting glucose, HbA1c, fasting insulin

Insulin resistance shows up in insulin before glucose. HbA1c rises late, so you want the early warning.

Testosterone, oestradiol, SHBG, prolactin

Ask for LC-MS/MS where the lab offers it. Standard immunoassays can cross-react and read wildly high.

LH + FSH

Your own production signals. Androgens switch them off, so a pre-use value is the only reference you'll ever have.

Thyroid: TSH, free T4, free T3

Your metabolic baseline. Needed to read any change later.

hs-CRP, homocysteine, ferritin, vitamin D

Inflammation, iron and the basics. Retest CRP after any cold or infection.

PSA

OVER 45

• IGF-1

IF 6H

Prostate baseline, and the age-adjusted marker for growth hormone.

Sources: J3U Level One M5, M6 • Guyton & Hall p.177, p.336, p.366, p.874 • Katzung Basic & Clinical Pharmacology 11e p.721

BEYOND THE BLOOD TEST

YOUR HEART

and pressure.

HOME BLOOD PRESSURE

Buy a validated upper-arm cuff in the right size (big arms need a large cuff). Take a week of readings before anything changes so you know your normal. Technique is on page 13.

RESTING HEART RATE

Take it from your sleep window (a watch or ring does this). It's your early warning for fatigue and for load creeping up.

ECHO + ECG

A baseline echocardiogram and ECG, read by a cardiologist, through your GP or privately. It shows heart muscle thickness and pumping function, which bloods never will.

CORONARY CALCIUM SCORE

A baseline CT calcium score. It uses a small dose of radiation, so it isn't a yearly test, but a starting number is worth having.

THE QUESTIONS I ASK FIRST

- ☐ What does your goal actually require? A lot of people are chasing a timeline.
- ☐ Are the basics maxed: 7 to 9 hours' sleep, stress handled, food consistent, training genuinely hard?
- ☐ Is your blood pressure under 120/80 right now?
- ☐ Have you thought about kids, now or later? (Page 07.)
- ☐ Does your GP know? They can only read your results properly if they do.

Most people who sort out sleep, food and training find they don't need what they thought they did.

Sources: J3U Level One M5, M6

02

CHAPTER 02

FERTILITY ISN'T *a later problem.*

This is the one lads in their twenties wave away, and the one I see men in their thirties regret.

HOW IT WORKS

Your brain tells your testes to make testosterone and sperm using two signals, LH and FSH. Add testosterone from outside and the brain switches both signals off. Your own testosterone falls, and so does sperm production.

It doesn't take big amounts. In male contraceptive trials, testosterone on its own stopped sperm production completely in many men within months, though not reliably in all of them. Supraphysiological use also shrinks the testes.

RECOVERY

It can come back, but it can take months and sometimes up to two years. Repeated on-off cycles make it harder each time, and some men end up on lifelong testosterone replacement. The 19-nor compounds (nandrolone, trenbolone) are particularly suppressive.

And it isn't contraception. "Most men" isn't "all men".

BEFORE ANYTHING CHANGES

- ☐ Get LH, FSH and testosterone on your baseline panel (page 05).
- ☐ If kids are even a maybe, ask your GP or a fertility clinic about a semen analysis and sperm storage first.
- ☐ "I never want kids" at 21 is a big decision to make for your 40-year-old self.

Sources: J3U Level One M6 • Katzung p.721, p.722

03

CHAPTER 03

THE SCHEDULE

I hold clients to.

Monitoring is the check-engine light. It only works if you look at it.

WHAT	HOW OFTEN	NOTES
Full panel + urinalysis	Every 10 to 12 weeks	Non-negotiable. Plus after any change, and HbA1c every draw.
Home blood pressure	1 to 2x a week	Same time of day, same arm, technique on page 13.
Resting heart rate	Ongoing	Watch the trend over several weeks.
Echo + ECG	Yearly	Trends heart muscle thickness and function. Cardiologist read.
Coronary calcium score	Every 1 to 3 years	Radiation involved, so never yearly.
Competitors	Prep + show	Before prep, mid-prep (about 8 to 10 weeks out), and about 2 weeks either side of the show. Never in peak week or the first week after.

10-12

WEEKS BETWEEN PANELS

1-2

BP CHECKS A WEEK

1

ECHO A YEAR

Sources: J3U Level One M5, M6

THE RED LINE

THICK BLOOD

and pressure.

HAEMATOCRIT

Haematocrit is the share of your blood that's red cells. Androgens tell the kidney to make more erythropoietin, so red cells rise. That's expected, and it rises with load. It's not a fault, but it isn't harmless either.

Normal blood is about 3 to 4 times as thick as water. At a haematocrit of 0.60 to 0.70 it's about 10 times thicker and flow slows right down. Slow flow is one of the two main triggers for clots, and that's the bridge from a number on a page to a stroke or a clot in the lungs.

This is the one I check first on every panel. Persistently at 0.52 to 0.54 or above goes to the GP. Don't let anyone talk you into DIY "blood dumping".

BLOOD PRESSURE

From 115/75 upwards, cardiovascular risk roughly doubles with every 20/10 mmHg rise. Hypertension kills three ways: heart failure and coronary disease, stroke, and kidney failure.

Thicker blood, water retention and the drugs themselves all push pressure up, so your blood count and your BP cuff are often reading the same problem. Risks also multiply: high BP plus diabetes raises coronary risk more than eightfold, and add high lipids and it's close to twentyfold.

WHAT I COACH TO

Blood pressure under 120/80. Resting heart rate under 70, and no more than about 10 beats above your own baseline.

Sources: Katzung p.167, p.720, p.721 • Guyton & Hall p.177, p.232, p.453, p.491, p.873 • J3U Level One M5

— READ THE PATTERN

LIPIDS, LIVER

and kidneys.

LIPIDS

Androgens lower HDL. Oral 17-alpha-alkylated steroids hit the lipid panel hardest and can push LDL up too. LDL and ApoB are what actually drive artery disease, so they're the numbers to trend. HDL on its own tells you less.

LIVER

Hard training lifts AST and ALT to 2 to 3 times the upper limit for 7 to 10 days, with CK high and GGT, ALP and bilirubin normal. That's muscle. GGT, ALP and bilirubin rising together is the liver pattern, and it goes to the GP. Oral steroids carry the real liver risk.

KIDNEYS

Creatinine is a by-product of muscle, so a creatinine-based eGFR understates a big lifter's kidneys. One example: creatinine of 128 $\mu\text{mol/L}$ gave an eGFR of about 64, while cystatin C in the same lifter gave about 113. Ask for cystatin C and urine ACR.



MY eGFR

MY OWN PANEL

When I was 275 lb my eGFR came back at 59. On a textbook chart that looks like kidney disease. In prep, 50 lb lighter, it was 75. Same kidneys. The standard eGFR is worked out from creatinine, and creatinine comes from muscle. That's why one result needs context, in either direction: any eGFR under 60 still goes to your GP, with a cystatin C and urine ACR to get the true picture.

WHERE IT STOPS BEING "JUST TRAINING"

Albumin or protein in your urine on a retest, a cystatin C-based eGFR genuinely falling over time or under 60, or GGT and bilirubin climbing. All of those go to your GP. A single odd kidney result gets a hydrated retest with cystatin C and ACR about 30 days later.

Sources: Katzung p.720, p.722 • J3U Level One M5, M6 • Guyton & Hall p.366

SUGAR, GH AND HORMONES

CHECKING SUGAR

isn't enough.

GROWTH HORMONE AND GLUCOSE

GH raises blood sugar. It cuts how much glucose your muscle and fat take up and raises how much your liver puts out, and insulin climbs to compensate. It can also unmask an underactive thyroid.

A single fasting glucose is unreliable on its own. A late meal, dehydration, a bad night's sleep or a hard session can all skew it. Track HbA1c every draw and fasting insulin alongside it.

HbA1c rises late, so 38 or 39 mmol/mol is no reason to relax. It can also read falsely high when haematocrit is up, so check whether the two are moving together.

INSULIN RESISTANCE SIGNS

- ☐ A watery, smooth look
- ☐ Pumps fading, appetite dropping
- ☐ Lethargy and joint pain
- ☐ Reflux or bloating
- ☐ Blood pressure creeping up
- ☐ Progress stalling

Any of those, on GH or off it, means bloods and a conversation with your GP. Glucose spilling into your urine (above about 11 mmol/L in the blood) is a glucose-control flag.

INSULIN IS DOCTOR TERRITORY

Blood glucose of 11 to 2.8 mmol/L causes shock, seizures and coma. Anyone using insulin needs a doctor involved, a glucose meter and someone around who knows the signs of a hypo.

Sources: Guyton & Hall p.351, p.943, p.987 • Katzung p.648 • J3U Level One M5, M6

04

CHAPTER 04

THE NUMBERS

I coach to.

These are tighter than a lab's "normal" range on purpose. They're early-warning targets. None of them is a diagnosis.

MARKER	I COACH TO	WHY
Blood pressure	Under 120/80	Home average, technique on page 13
Resting heart rate	Under 70	And within ~10 bpm of your baseline
Haematocrit	Below 0.52 L/L	0.54 is the Endocrine Society ceiling
LDL cholesterol	Under ~2.6 mmol/L	The causal driver of artery disease
ApoB	Under 0.8 g/L	Particle count, the better read
HDL cholesterol	Above ~1.3 mmol/L	Watch it, but don't chase it
Lp(a)	Know it once	Genetic. If raised, LDL, ApoB and BP targets get tighter
hs-CRP	Under 1 mg/L	Inflammation. Retest after illness
HbA1c	Under ~34 mmol/mol	Strain shows from about 39
Fasting glucose	~4.2 to 5.0 mmol/L	Read with insulin, never alone
Fasting insulin	Ideally under ~10 mU/L	The early warning
eGFR (cystatin C)	90 to 120	Concern under 60
Urine ACR	Under ~3 mg/mmol	Earliest kidney damage sign

WHY YOUR GP MIGHT SAY "FINE"

UK GPs usually diagnose high blood pressure at 140/90 in clinic, confirmed by a 135/85 home average, and labs flag pre-diabetes from an HbA1c of 42. Those are diagnosis thresholds. Mine are earlier, because the whole point is to act before you need a diagnosis.

05

CHAPTER 05

HOW TO GET

a clean draw.

Half the "scary" results I see come down to how the sample was taken.

THE BLOOD TEST

- 01 **No training for 24 to 48 hours.** Ideally in a deload week. Big lifters may need longer for AST and ALT to settle.
- 02 **Fasted.** Water is fine.
- 03 **Drink about 2 L of water beforehand.** Dehydration pushes haematocrit up 2 to 3 points, sometimes more, and inflates kidney markers and glucose too.
- 04 **Sleep properly the night before.**
- 05 **Not ill.** Retest hs-CRP after any cold or infection.
- 06 **Same lab, same test method, same time of day** every time, so the trend means something.
- 07 **Tell them what you're using** on the form. GH and insulin both skew glucose readings.

HOME BLOOD PRESSURE

- 01 Validated upper-arm cuff, the right size, on a bare arm.
- 02 Seated, back supported, feet flat, arm resting at heart level.
- 03 Empty bladder. No caffeine, nicotine or exercise beforehand.
- 04 Rest 3 to 5 minutes and don't talk.
- 05 Take 3 readings a minute apart and average the last two.
- 06 One high reading? Re-measure daily for 3 to 6 days before you decide anything.

Sources: J3U Level One M5, M6

06

CHAPTER 06

AFTER: COMING OFF

and recovery.

WHAT TO RETEST

- ☐ The full panel at the end of prep or your hardest phase, then again after the change.
Competitors: about two weeks either side of the show, never the first week after.
- ☐ LH, FSH and testosterone, tracked with a clinician, to see whether your own production is coming back. A semen analysis if fertility matters to you.
- ☐ Anything that was out of range, repeated under clean conditions (page 13).
- ☐ Blood pressure weekly while weight and water come back.

Severe liver strain can take more than three months to settle. Natural testosterone recovery can take up to two years, and it gets harder with every on-off cycle.

THE PRINCIPLE

Get your markers back in range. Deteriorating bloods are a reason to stop pushing, and never a reason to add something. The J3U position on a post-show "blast" is clear: it adds mostly fat and fluid, more blood pressure and kidney load, and leaves deranged bloods unresolved.

LOOK AFTER YOUR HEAD

Coming off is hard on mood, and the risk is higher when someone is coming off steroids and psychiatric medication at the same time. If you feel low, tell someone. NHS 111 option 2 or Samaritans on 116 123, any time, and 999 if you're in immediate danger.

Sources: J3U Level One M5, M6, M9 • Katzung p.721, p.722

CHAPTER 07

RED LINES

and where to go.

Don't wait for your next panel, and don't ask a forum.

IF YOU HAVE

GO TO

Chest pain, collapse, palpitations with dizziness, signs of a stroke, sudden breathlessness

999

Very high blood pressure with a severe headache, confusion or vision changes

999 / A&E

A hypo that isn't resolving with fast sugar, or someone drowsy, confused, fitting or unconscious (give nothing by mouth if they can't swallow)

999

A painful, swollen calf

NHS 111 same day • 999 if breathless

Cola-coloured urine with severe muscle pain

NHS 111 / A&E

Yellow skin or eyes, dark urine, pale stools

Urgent GP / NHS 111

A hot, red, spreading injection site or fever

NHS 111 / urgent GP

Suicidal thoughts or a mood crash

999 if in danger • 111 option 2 • Samaritans 116 123

Repeat BP of 140/90 or more, haematocrit persistently 0.52 to 0.54+ (sooner with headache, dizziness, blurred vision or breathlessness), HbA1c 39+, eGFR under 60, raised ACR, rising GGT or bilirubin, a lump behind the nipple

Your GP

CONFIDENTIAL SUPPORT

Local needle and syringe programmes, in community pharmacies and drug services, offer confidential, non-judgemental support for people using image and performance enhancing drugs. Some offer health checks and bloods.

TELL YOUR GP

Your GP can only read your results properly if they know what you're using. Anabolic steroids are Class C in the UK. Supplying them is an offence, and so is importing them, including ordering from abroad by post.

08

CHAPTER 08

SIX MYTHS

I hear every week.

"I DON'T TAKE THAT MUCH."

Deaths, often cardiac, happen at moderate exposure in people who are genetically predisposed. You don't know you're one of them until you are.

"INJECTABLES DON'T TOUCH THE LIVER, SO I'M FINE."

Maybe not the liver, but androgens still push haematocrit up and HDL down. The liver isn't the biggest long-term risk. The heart is.

"I FEEL FINE."

So does nearly everyone with high blood pressure or early kidney damage. Both are silent until they aren't. Feeling fine isn't a test result.

"IT'S JUST AN ORAL."

Orals, and "just SARMs", are often the most harmful first exposure: liver, lipids and a full shutdown. A lot of what's sold is counterfeit too, so you can't be sure what you're actually taking.

"MY GP SAID IT'S NORMAL."

Creatinine understates lifters' kidneys, immunoassays can misread hormones, the haematocrit range runs right up to 0.54, and HbA1c rises late. Ask for cystatin C, LC-MS/MS hormones and your trend over time.

"I'LL GET BLOODS IF SOMETHING FEELS OFF."

Without a baseline, a result after the fact can't tell you what's changed, how fast, or what caused it. Test before anything changes.

Sources: J3U Level One M5, M6 • Katzung p.720, p.721 • Guyton & Hall p.222, p.435

[PRINT ME](#)

YOUR BLOODS LOG

One column per draw. Same lab, same conditions. Circle anything outside your lab's range or the targets on page 12.

MARKER	BASELINE	DRAW 2	DRAW 3	DRAW 4	AFTER
Date / lab					
Haematocrit (L/L)					
Haemoglobin (g/L)					
eGFR (cystatin C)					
Creatinine ($\mu\text{mol/L}$)					
Urine ACR (mg/mmol)					
ALT / AST (U/L)					
GGT / bilirubin					
LDL / HDL (mmol/L)					
ApoB (g/L)					
HbA1c (mmol/mol)					
Fasting glucose / insulin					
Testosterone / E2					
LH / FSH					
TSH / free T4 / free T3					
hs-CRP (mg/L)					
Home BP (avg)					
Resting HR (avg)					
Bodyweight (kg)					
Notes (sleep, training, illness)					

YOUR NEXT STEP

WANT ME TO *read yours?*

Getting the bloods done is the easy bit. Knowing which numbers are muscle, which are dehydration, which are a lab quirk and which need your GP this week is the part most people get wrong.

BLOODWORK REVIEW • £79

A 45-minute one-to-one call. Send me your panel and I'll go through every line with you: what's moved, what's training, what's a sampling issue, what to retest and what to take to your GP. A non-medical review, from someone who's read over 300 of them.

Book at calendly.com/jackdwall87/bloodwork-review

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Engineered on data.

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Important. This guide is general education about health monitoring. It isn't medical advice, it isn't a diagnosis, and it isn't a recommendation to use any drug. It contains no doses or protocols, and none will be given. Anabolic steroids, growth hormone and insulin carry serious risks including heart disease, stroke, kidney and liver damage, infertility and death. Every result outside its reference range, and every medication decision, belongs with your GP or a specialist. If you're under 18, don't use this guide; speak to your GP. Sources are cited on each page: J3U Level One Certification (Jewett and Miller), Guyton & Hall Textbook of Medical Physiology 13e, Katzung Basic & Clinical Pharmacology 11e. © 2026 Jack Wall, Transform Coaching.