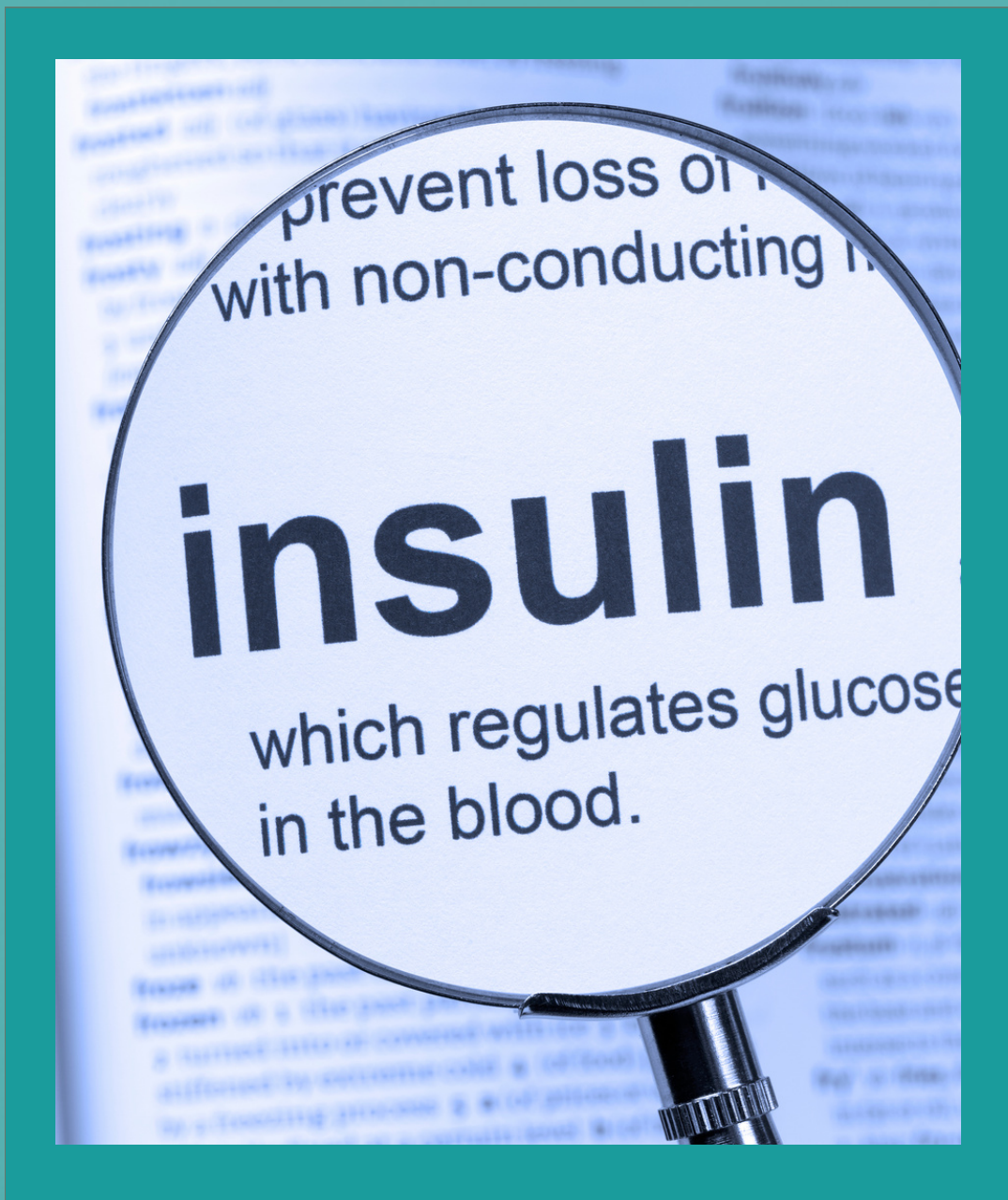




BLOOD SUGAR & INSULIN RESISTANCE CHEAT SHEET

CARRIE REEDY
*Functional
Nutrition*

WHY STANDARD TESTING ISN'T ENOUGH

Your doctor tests: Fasting Glucose

What they miss: Insulin Levels

The Problem:

You can have completely NORMAL blood sugar and dangerously HIGH insulin levels.

This is called "occult" insulin resistance - hidden in plain sight.

What's happening inside your body:

For years - possibly decades - your pancreas has been working overtime. It's pumping out more and more insulin to keep your blood sugar looking "normal." Your doctor says you're fine. Keep doing what you're doing. But inside, you're in metabolic crisis.

The Analogy:

Imagine your house is flooding (high insulin). Water is pouring in from a broken pipe. But you're bailing it out so frantically (your pancreas compensating) that the floor looks dry (normal glucose).

To anyone walking through, your house looks fine. No water visible. No problem.

But you're exhausted. You can't keep up this pace forever. The pipe is still broken. The water is still flooding in.

One day, you can't bail fast enough anymore. The water shows up. The floor floods. Suddenly, everyone can see the problem.

You're diagnosed as pre-diabetic or diabetic. But the problem started years ago - when your insulin levels first started climbing, and no one was checking.

By the time standard glucose testing catches the problem, you've lost years of opportunity for easy reversal.

This is why insulin testing matters. It catches the problem at the beginning - when it's still reversible - not at the end when the damage is done.

THE TESTS YOU ACTUALLY NEED

1. FASTING INSULIN

What it measures: How much insulin your body produces when fasted

Optimal Range:

- ✅ Under 5 µIU/mL = Optimal
- ⚠️ 5-10 µIU/mL = Borderline
- ❌ 10-15 µIU/mL = Concerning
- 🚨 15+ µIU/mL = Insulin Resistant

Why it matters: High insulin = Fat storage mode, blocked fat burning, metabolic dysfunction

2. FASTING GLUCOSE

What it measures: Blood sugar levels after an overnight fast

Optimal Range:

- ✅ 3.9-4.7 mmol/L = Optimal
- ⚠️ 4.8-5.5 mmol/L = Acceptable
- ❌ 5.6-6.9 mmol/L = Pre-diabetic
- 🚨 7.0+ mmol/L = Diabetic

Note: "Normal" doesn't mean optimal. Aim for under 90.

3. HOMA-IR SCORE

What it measures: Combines fasting glucose + fasting insulin for accurate insulin resistance assessment

How to calculate:

$$\text{HOMA-IR} = (\text{Fasting Insulin} \times \text{Fasting Glucose}) \div 405$$

(Or ask your doctor to calculate it)

Optimal Range:

- ✅ Under 1.0 = Optimal insulin sensitivity
- ⚠️ 1.0-2.0 = Early insulin resistance
- ❌ 2.0-2.5 = Moderate insulin resistance
- 🚨 Over 2.5 = Significant insulin resistance

Why it's better: Combines both markers for most accurate picture

4. HbA1c (GLYCATED HAEMOGLOBIN)

What it measures: 3-month average blood sugar levels

Optimal Range:

- ✅ Under 5.0% = Optimal
- ⚠️ 5.0-5.4% = Acceptable
- ❌ 5.5-5.9% = Concerning (pre-diabetic territory)
- 🚨 6.0%+ = Pre-diabetic
- 🚨 6.5%+ = Diabetic

Why it matters: Shows your average over time, not just a snapshot

SIGNS & SYMPTOMS OF INSULIN RESISTANCE

Even without testing, your body gives you clues:

Physical Signs

- ☐ Cannot lose weight despite calorie restriction
- ☐ Belly fat that won't budge (especially visceral)
- ☐ Skin tags appearing
- ☐ Dark patches on neck, underarms (acanthosis nigricans)
- ☐ For women: Irregular periods, PCOS symptoms
- ☐ For lipodema: Increased inflammation and swelling

Energy & Hunger

- ☐ Intense hunger 1-2 hours after eating
- ☐ Energy crash mid-afternoon (the 3pm slump)
- ☐ Constant sugar and carb cravings
- ☐ Feeling tired after meals
- ☐ Need caffeine to function

Mental & Cognitive

- ☐ Brain fog and poor concentration
- ☐ Memory issues
- ☐ Mood swings
- ☐ Anxiety or depression

Metabolic Markers

- ☐ High triglycerides
- ☐ Low HDL cholesterol
- ☐ High blood pressure (over 130/85)
- ☐ Waist circumference: Over 88cm (women) or 102cm (men)

**If you have 3+ signs,
Insulin Resistance is likely**

WHAT TO ASK YOUR DOCTOR

Don't just accept "your glucose is normal."

Say this:

"I'd like to request additional testing for insulin resistance. Can we please test:

- Fasting insulin
- Fasting glucose
- HbA1c
- And calculate my HOMA-IR score from the results?"

If they push back:

"I have multiple symptoms of insulin resistance (list 3-4 from the checklist above). I understand standard glucose testing can miss this, and I'd like comprehensive metabolic testing."

Be prepared:

Some doctors are unfamiliar with fasting insulin testing. You may need to advocate for yourself or reach out to me to arrange this testing privately.

UNDERSTANDING YOUR RESULTS

SCENARIO 1: Normal Glucose, Normal Insulin

✅ You're metabolically healthy

→ Focus on prevention and maintenance

SCENARIO 2: Normal Glucose, HIGH Insulin

⚠️ Hidden insulin resistance

→ Your pancreas is working overtime to keep glucose normal

→ This is the EARLY stage - easiest to reverse

→ Take action NOW before it progresses

SCENARIO 3: High Glucose, High Insulin

✗ Established insulin resistance

→ Your pancreas can't compensate anymore

→ Both markers are elevated

→ Action needed to prevent progression to diabetes

SCENARIO 4: High Glucose, Normal/Low Insulin

🚨 Advanced dysfunction

→ Your pancreas is exhausted and can't produce enough insulin

→ This is late-stage (type 2 diabetes)

→ Requires immediate medical intervention

FOODS THAT SPIKE INSULIN THE MOST

HIGH-INSULIN FOODS

(Avoid/Minimise)

Processed Carbohydrates:

White bread, pasta, crackers

Breakfast cereals (even "healthy" ones)

Pastries, biscuits, cakes

Sugars:

Soft drinks, juice, energy drinks

Lollies, chocolate bars

Dried fruit

High-Glycaemic Starches:

White rice, instant oats

White potatoes (especially mashed, fried)

Corn products

Surprising Insulin Spikers:

Low-fat dairy products

Protein bars/shakes (check ingredients)

"Healthy" granola and muesli bars

FOODS THAT SUPPORT INSULIN SENSITIVITY

LOW-INSULIN FOODS

(Eat Freely)

Non-Starchy Vegetables:

Leafy greens (spinach, kale, rocket, lettuce)
Cruciferous vegetables (broccoli, cauliflower, Brussels sprouts)
Courgette, cucumber, celery
Asparagus, green beans
Capsicum, tomatoes

Quality Proteins:

Eggs (pastured if possible)
Fish (especially fatty fish like salmon, sardines, mackerel)
Meat (grass-fed beef, lamb, chicken)
Shellfish

Healthy Fats:

Avocado
Olive oil (extra virgin)
Nuts and seeds (almonds, walnuts, macadamias, chia, flax)
Coconut oil

Moderate Amounts:

Berries (lowest-sugar fruits)
Greek yoghurt (full-fat, unsweetened)
Dark chocolate (85%+ cacao, small amounts)

INSULIN-SENSITIVITY BOOSTING FOODS

Add these daily for therapeutic effect:

1. Cinnamon (Ceylon)

- 1 tsp daily in coffee, yoghurt, or smoothies
- Improves insulin receptor sensitivity

2. Apple Cider Vinegar

- 1 Tbsp in water before meals
- Reduces blood sugar spikes by 20-30%

3. Omega-3 Rich Fish

- 2-3 servings per week
- Reduces inflammation, enhances insulin signalling

4. Leafy Greens

- Daily, as much as you want
- High in magnesium (crucial for insulin function)

5. Avocado

- ½-1 whole avocado daily
- Monounsaturated fats improve insulin sensitivity



MEAL TIMING FOR INSULIN SENSITIVITY

Your insulin sensitivity changes throughout the day:

MORNING (6am-12pm) ● HIGHEST Insulin Sensitivity

- Your body handles glucose most efficiently
- Best time for any carbohydrates you're eating
- Cortisol is higher, but insulin sensitivity is also at its peak

Best breakfast: Protein + healthy fats + optional carbs Examples: Eggs with avocado and spinach, Greek yoghurt with berries and nuts, protein smoothie with chia seeds and berries

MIDDAY (12pm-6pm) ● MODERATE Insulin Sensitivity

- Good for balanced meals
- Still handles carbohydrates reasonably well

Best lunch: Protein + vegetables + healthy fats (+ optional small amount of carbs) Examples: Large salad with salmon and olive oil, chicken and vegetable stir-fry with small amount of carbs, veggie omelette with side salad

EVENING (6pm onwards) ● LOWEST Insulin Sensitivity

- Your body is LEAST able to handle carbohydrates
- Worst time for high-carb meals
- High-carb dinner → fat storage mode
- Body is preparing for sleep, not digestion

1.

Best dinner: Protein + non-starchy vegetables + healthy fats (minimal to no starch) Examples: Grilled fish with roasted vegetables, grass-fed steak with large salad, chicken with cauliflower rice stir-fry

💡 TIP: If you do include carbs at dinner, keep the portion very small ($\frac{1}{4}$ - $\frac{1}{2}$ cup cooked) and take a 10-minute walk after eating to help support blood sugar regulation.

OVERNIGHT FASTING ★ Critical for Insulin Sensitivity

- Stop eating 3 hours before bed
- Extend overnight fast to 12-16 hours
- Gives insulin levels time to DROP
- Your body needs insulin-free time to access stored fat

Example: Finish dinner by 6-7pm, don't eat again until 8-10am

THE 4-WEEK INSULIN RESET

WEEK 1: Remove High-Insulin Triggers

- ☐ Eliminate processed carbs (bread, pasta, cereals)
- ☐ Remove all added sugars
- ☐ Cut out seed oils
- ☐ Track how you feel

WEEK 2: Add Insulin-Boosting Foods

- ☐ Add cinnamon daily
- ☐ Start ACV before meals
- ☐ Increase leafy greens
- ☐ Include omega-3 oils

WEEK 3: Optimise Timing

- ☐ Protein + fat breakfast only
- ☐ Extend overnight fast by finishing dinner earlier and starting breakfast later
- ☐ Stop eating 3 hours before bed
- ☐ Notice energy improvements

WEEK 4: Add Movement

- ☐ Start resistance training
- ☐ Walk after meals (even 10 minutes)
- ☐ Reduce steady-state cardio
- ☐ Prioritise 7-9 hours sleep

Track your progress:
Energy levels, hunger patterns, cravings,
sleep quality, mood

WHEN TO RETEST YOUR BLOOD MARKERS

Initial Testing: Get baseline markers
(fasting insulin, glucose, HbA1c, HOMA-IR)

RETEST AT:

- 6 weeks: Check fasting insulin - should see 20-30% improvement
- 12 weeks: Full panel - expect 40-60% insulin improvement if following protocol
- 6 months: HbA1c update - reflects long-term changes

**Don't just test once. Track your progress.
This is how you know what's working.**

RED FLAGS - SEEK IMMEDIATE HELP

See your doctor urgently if you experience:

- Fasting glucose over 11.1 mmol/L
- Extreme thirst and frequent urination
- Unexplained rapid weight loss
- Blurred vision that's worsening
- Slow-healing wounds or frequent infections
- Diabetic ketoacidosis symptoms (fruity breath, confusion, rapid breathing)

NEXT STEPS

If your results show insulin resistance:

1. Don't panic - It's reversible with the right approach
2. Take action - The earlier you intervene, the easier the reversal
3. Get support - This is complex; I can help you navigate this process with my UltraLite program. This takes the guess work out, and provides structure in the early stages of fixing insulin resistance.
4. Focus on root cause - Not just symptom management

**NEED
GUIDANCE?**

**Schedule a complimentary call with
me via my website www.carriereedy.com,
or email me via info@carriereedy.com**