

A close-up photograph of a woman with long, wavy brown hair and dark eyes, looking directly at the camera. She is holding a slice of pepperoni pizza in her mouth with both hands. The image has a dark, moody aesthetic with a teal/green tint. Overlaid on the top of her head is the text 'Wholesome Gems' in a stylized font, with 'Wholesome' in a bold, blocky font and 'Gems' in a cursive script with three small star icons to its right.

Wholesome
Gems

Hunger Decoded

— Why you crave, when you crave,
and how to take the controls back —
without willpower theatre.

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Decoding the appetite engine

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WHAT HUNGER REALLY IS

It's not one signal, it's two systems.

Most people treat hunger as a single feeling.

The science says otherwise. Your brain runs **two parallel hunger systems** – one keeps you alive, the other makes a brownie at 9pm feel non-negotiable. Knowing which one is talking is half the battle.

SYSTEM 01

Homeostatic Hunger

The biological need-to-eat signal.

- ✓ Driven by low blood glucose, empty stomach, energy debt
- ✓ Ghrelin rises before meals, falls after eating
- ✓ Builds slowly, eased by almost any food
- ✓ The "real" hunger you feel after skipping a meal

SYSTEM 02

Hedonic Hunger

The reward-driven want-to-eat signal.

- ✓ Triggered by sight, smell, stress, boredom, habit
- ✓ Driven by dopamine – the anticipation of pleasure
- ✓ Hits fast, fixates on specific foods
- ✓ The "I'm not hungry but I want chocolate" signal

The Takeaway

You can't out-discipline a system you've misdiagnosed. Most "hunger" at 9pm isn't hunger – it's the hedonic system running a routine. Different signal, different fix.

THE HORMONE CREW

Five chemical messengers run your appetite.

Appetite is a chemical conversation between your gut, your fat tissue, and your brain. These are the five voices doing most of the talking. Once you know who's saying what, you can stop blaming willpower and start managing the inputs.

Ghrelin

↑ Hunger

Released By: The Stomach

The "let's eat" hormone. Rises before expected meal times – yes, your body learns your schedule. Spikes hard with poor sleep and chronic dieting, which is why both wreck appetite control.

Leptin

↓ Hunger

Released By: Fat Cells

Tells your brain "we have enough fuel stored." Falls during fat loss – why hunger climbs in week 4 of a deficit. Diet breaks help leptin recover.

GLP-1

↓ Hunger

Released By: Small Intestine

Slows digestion and signals fullness. Released most by protein and fibre. Yes, this is the same pathway Ozempic targets, just done with food.

PYY

↓ Hunger

Released By: Lower Gut

The long-acting fullness signal. Highest after high-protein, high-fibre meals. Keeps you full hours after eating, not just minutes.

CCK

↓ Hunger

Released By: Upper Gut

The early "I'm full" signal during a meal. Triggered by fat and protein. The reason eating slowly works – CCK takes 15–20 minutes to register.

Insulin

↓ Hunger

Released By: Pancreas

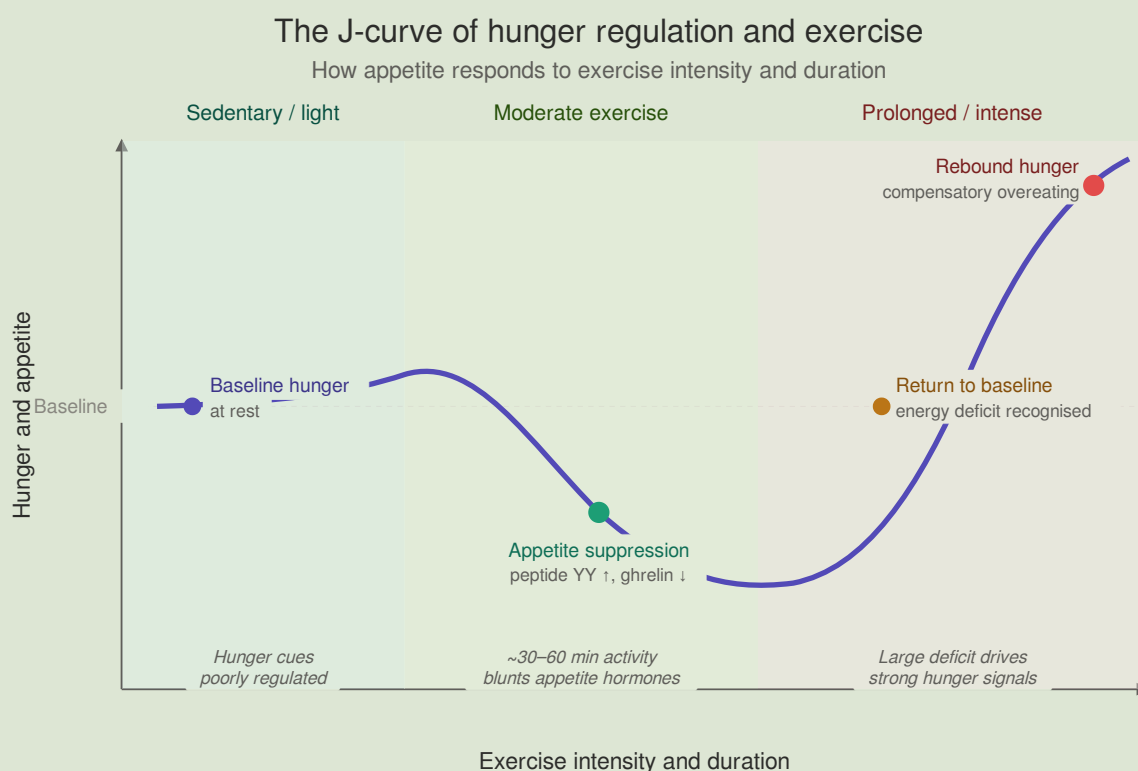
Long-term satiety regulator. The crash after a high-sugar meal – that's not "low blood sugar hunger," it's a rebound your body learns to expect.

Your nutrition strategy is, ultimately, a **strategy for tilting these hormones in your favour.**

EXERCISE & THE J-CURVE

Why "I worked out, so I'm starving" isn't always true.

Common belief: exercise raises hunger. Reality: it depends entirely on **intensity and duration**. The relationship follows a J-shape — hunger drops, then climbs. Knowing where on the curve your sessions sit changes how you fuel.



ZONE 01 • 20–45 MIN

Hunger Drops

Moderate-to-vigorous training suppresses ghrelin and raises PYY. You eat less, not more, in the hours after.

ZONE 02 • 45–75 MIN

Hunger Neutral

The sweet spot for most fat-loss training. Energy used, appetite stays calm.

ZONE 03 • 90+ MIN

Hunger Overshoots

Long endurance sessions flip the script. Hunger climbs above baseline and stays there for hours.

If you finish a 20-minute strength session and feel ravenous – that's hedonic, not homeostatic. If you finish a 2-hour ride and feel ravenous – that's biology. Treat them differently.

WHAT CRANKS HUNGER UP

The six inputs that quietly destroy your appetite control.

Most people fight hunger downstream – by trying to white-knuckle through it. Smarter approach: shut off the upstream amplifiers. Each of these is fixable in days, not months.

Sleep Debt

01

One night of 5 hours raises ghrelin and drops leptin. You wake up biologically primed to overeat — by ~300 kcal/day on average.

→ Protect 7 hours. It is a fat-loss tool.

Liquid Calories

02

Smoothies, juices, lattes, alcohol — all bypass the chewing and stretch signals that tell your gut a meal happened.

→ Eat your calories. Drink water.

Ultra-Processed Foods

03

Engineered to bypass satiety. Studies show people eat ~500 kcal/day more on UPF-heavy diets without feeling more full.

→ 80% whole foods. The 20% won't hurt.

Chronic Stress

04

Cortisol drives cravings for sugar and fat — especially in the evening. It's biology, not weakness.

→ 10 min daily walk. Non-negotiable.

Aggressive Deficits

05

Cutting too hard, too fast, drives leptin down and ghrelin up. The body fights back. You binge by week 3.

→ Slow loss = sustainable loss.

Erratic Meal Timing

06

Your gut learns your schedule. Random meal times mean random hunger spikes and worse decisions.

→ Same hours, ±60 min. That's it.

WHAT BRINGS HUNGER DOWN

Six evidence-backed levers you can pull today.

If the previous page was the off-switches, this page is the on-switches. Every lever here directly raises satiety hormones, slows the rebound, or both. None of them require willpower.

Front-Load Protein

01

30g of protein at breakfast lowers all-day cravings. Protein is the most satiating macro — by a wide margin.

→ 30g protein within 60 min of waking.

Volume First

02

Stretch receptors in the stomach trigger fullness based on volume, not calories. Veggies and fruit are the cheat code.

→ Half your plate, every meal.

Fiber At Every Meal

03

Fibre slows gastric emptying and feeds gut bacteria that produce satiety signals. 30g/day is the target.

→ Beans, oats, berries, leafy greens.

Hydrate First

04

Thirst is mistranslated as hunger ~30% of the time. A glass of water before meals reduces intake by ~75 kcal.

500ml on waking. 500ml before lunch/dinner.

Slow Down

05

CCK takes 15–20 min to signal fullness. Eating in 8 minutes guarantees overshoot. Eating in 25 doesn't.

→ Put the fork down between every bite.

Strength Training

06

More muscle = higher resting metabolism = bigger calorie ceiling before fat gain. The long game's biggest lever.

→ 3–4 strength sessions per week.

THE SATIETY HIERARCHY

Not all calories fill you up the same.

The Satiety Index (Holt et al.) ranked common foods by how full they make you per calorie, with white bread set as the reference at 100. The ranking below is a working version your clients can use as a daily filter — pick higher up the list more often.

01

Boiled Potatoes

Highest measured satiety per calorie. Volume + resistant starch + low energy density



02

Fish, Eggs, Lean Meat

Protein dominance. Maximum GLP-1 and PYY response per gram.



03

Oats, Beans, Lentils

Fibre+slow carbs. Stable blood sugar, long-acting fullness.



04

Whole Fruit & Veg

High water + fibre + volume. Fills the stomach fast for almost no calories.



05

Greek Yoghurt & Cottage Cheese

Casein protein digests slowly. Excellent evening satiety play.



06

White Rice, Pasta, Bread

Reference range. Fine in context— pair with protein and fibre.



07

Pastries, Crisps, Cookies

Lowest satiety per calorie. Energy-dense, low protein, low volume — easy to over consume



HUNGER VS CRAVING VS APPETITE

Three different signals. Three different fixes.

When clients say "I'm hungry," they're usually wrong and that's not their fault. The three sensations feel similar but come from different systems. Misdiagnose the signal, apply the wrong fix, and the cycle repeats. Use this as a quick check before reaching for food.

SIGNAL	WHAT IT FEELS LIKE	WHAT CAUSES IT	THE RIGHT FIX
Hunger	Empty stomach, low energy, mild headache, builds gradually over hours	Real energy debt. Ghrelin rising, blood glucose dropping.	Eat a balanced meal. Protein + fibre + volume.
Craving	Want a specific food. Comes on suddenly. Goes away if distracted.	Dopamine. Triggered by stress, habit, sight, smell, emotion.	10-min delay. Walk. Water. Usually passes.
Appetite	Generally interested in food. "Could eat" — not "must eat."	Time of day, social cues, food being available.	Decide based on plan, not feeling. Stick or skip.
Thirst	Often mistaken for hunger. Dry mouth fatigue, mild headache.	Mild dehydration. Common mid-afternoon and post-coffee.	500ml water. Wait 15 min. Reassess.
Boredom	Restless. Eating sounds "interesting" rather than necessary.	Underused brain seeking stimulation. Habit loop.	Change activity. Outside. Phone away. Reset.

THE DIAGNOSTIC QUESTION

"Would I eat broccoli right now?" If yes, it's hunger. If you want a specific thing, it's a craving. The honest answer to that one question saves more diets than any meal plan.

YOUR 7-DAY HUNGER AUDIT

Track the pattern. The data tells the truth.

Before we change anything, we measure. For seven days, log your hunger at four checkpoints. No diet changes yet – just data. By day 7, the patterns will be obvious: when you actually need to eat, when you don't and what's driving the difference.

Day	ON WAKING	PRE-LUNCH	Dinner	9pm
Mon				
Tue				
Wed				
Thur				
Fri				
Sat				
Sun				

Scale
1-10

1

2

3

4

5

6

7

8

9

10

1-3 Low/Calm

Not thinking about food. Could comfortably wait 2+ hours.

4-7 Background Noise

Aware of hunger but functional. Could go another hour.

7-8 Acute

Distracted by hunger. Decision-making starts to slip.

9-10 Ravenous

Anything edible looks good. This is where binges live.

Goal: keep hunger between 3 and 7 most of the day. Below 3 = probably eating from boredom. Above 7 = the meal before failed you.

FAQ

The questions that come up every week.



I'm hungry an hour after eating. What's wrong?

Usually one of three things: not enough protein (under 25g), not enough volume (the meal was calorie-dense but small), or a blood-sugar rebound from refined carbs without a protein anchor. Fix the next meal, don't snack on this one.



Why am I never hungry on training days but starving on rest days?

Exercise suppresses ghrelin acutely. Rest days don't get that suppression and many people under-eat on training days, which biology corrects on the rest day. Solution: eat consistently across both.



I get savage cravings at 9pm even when I've eaten enough.

Almost always habit + hedonic, not hunger. Dim lights, end the eating window, brush your teeth. The brain treats the day as "over." Most 9pm cravings die in 12 minutes if you don't act on them.



Hunger gets worse 3 weeks into a fat loss phase.

This is biology, not failure. Leptin drops as fat stores drop. Either tighten the satiety levers (more protein, more fibre, more volume) or program a planned diet break 7–10 days at maintenance lets leptin recover.



Should I just push through hunger?

Short answer: no. Long-term hunger suppression makes the rebound bigger. The strategy isn't to ignore hunger, it's to engineer your day so you don't get there. That's what the levers on page 6 are for.



Does coffee really suppress appetite?

Yes, caffeine blunts ghrelin acutely. Useful, but not free. Relying on coffee to skip breakfast often leads to overeating later. Use it as support, not as a meal replacement.