🧠 The Science Bit — How Oestrogen and Progesterone Help Keep Cortisol in Check

(and what happens when they don't)

1️⃣ Cortisol is your main stress hormone

It's made by your adrenal glands and is part of your natural circadian rhythm — highest in the morning (to wake you up) and lowest at night (so you can rest).

Short-term cortisol spikes are healthy and helpful. Chronic elevation, though, drives fat storage, inflammation, and hormone imbalance.

2️⃣ Oestrogen helps regulate cortisol sensitivity

Oestrogen influences how your brain (particularly the hypothalamus and hippocampus) and your tissues respond to cortisol.

When oestrogen is at healthy levels, your body has a more measured stress response — cortisol rises and falls appropriately.

As oestrogen declines (especially during perimenopause and menopause), that regulation weakens. Your brain becomes more reactive to stress, so cortisol spikes more easily and stays elevated longer.

This is partly why women often notice that after 45 or 50, they feel more "wired," anxious, or reactive — even to things they used to handle calmly.

3️⃣ Progesterone has a calming, cortisol-buffering effect

Progesterone is the body's natural anti-stress hormone. It:

Stimulates GABA (a calming neurotransmitter) → helps you relax and sleep

Counters cortisol's catabolic (breakdown) effects on tissue and muscle

Supports the adrenals, helping maintain steady cortisol rhythms

When progesterone drops (as it naturally does in the late 40s–50s), women lose this "brake pedal." The result? The nervous system is more easily triggered, and cortisol remains high for longer after stress.

That's why low progesterone can make women feel wired but tired — busy brain, poor sleep, and belly fat creeping in.

4️⃣ The combined effect

Oestrogen and progesterone work together to keep the stress system balanced.

When both decline:

- Cortisol spikes more easily
- Blood sugar becomes less stable
- Sleep worsens (especially 2–4am waking)
- Fat storage around the belly increases
- Wired, anxious, more reactive, poor sleep, busy brain

In short, lower female hormones mean less resilience to stress, both emotionally and metabolically.