

Hormone Regulation & Vagus Nerve Stimulation

FreeFitFuel™ — In Depth Daily Wellbeing Guide (Prose Edition)

This handout explains, in clear language, how your hormones interact with stress, sleep, movement, food, and the vagus nerve. It offers practical, everyday steps to restore balance without jargon or gimmicks.

How to Use This Guide

Read one section per day and try one or two ideas. Keep what works; let go of what doesn't. Consistency matters far more than perfection.

Why Hormones Matter

Hormones are chemical messengers that influence energy, mood, appetite, sleep, focus, temperature, digestion, and resilience. They work together in rhythms. When stress is relentless or routines are chaotic, those rhythms drift. You may feel wired and tired, foggy, irritable, hungry at odd times, or unable to sleep. The aim is not to force hormones into line but to create conditions that let the body recalibrate itself.

Cortisol — Your Stress Regulator

Cortisol helps you wake, focus, and respond to challenges. Ideally it peaks in the morning then declines. Chronic stress, pain, illness, sleep loss, or stimulants can keep it high. Signs include a racing mind at night, frequent waking, cravings for quick sugar, central weight gain, and feeling on edge.

Helpful supports: steady meals with protein and fibre; daylight soon after waking; short calming practices that lengthen the exhale; and avoiding late caffeine or bright screens before bed.

Melatonin — Sleep & Repair

Melatonin rises in darkness. Blue rich light at night and stress can blunt it. Protect the evening: dim lights, use screen filters, and build a simple wind down. Morning light exposure anchors the 24 hour rhythm that brings melatonin reliably at night.

Insulin — Steady Energy

Insulin moves glucose from blood to cells. Repeated sugar spikes and dips, or high cortisol, can strain this system. Favour meals that combine protein, complex carbohydrates, healthy fats, and vegetables. Eating pace matters: slower meals reduce spikes; long gaps plus coffee only can provoke jittery lows.

Thyroid Hormones — Metabolic Pace

Thyroid hormones set the body's metabolic tempo. Ongoing stress and poor sleep can nudge them down. Support includes adequate protein and micronutrients (iodine, selenium, iron), gentle regular movement, and restoring sleep. Persistent fatigue, cold intolerance, constipation, or hair changes warrant a GP check.

Oestrogen, Progesterone & Testosterone — Reproductive Balance

Stress can disrupt cycles, lower libido, and alter mood. Stable blood sugar, regular meals, resistance training appropriate to your level, good sleep, and nervous system calming practices protect balance. Track patterns across weeks; trends are more informative than single days.

Dopamine, Serotonin, Oxytocin & GABA — Mood and Calm

Dopamine supports motivation and focus; serotonin steadies mood and is closely tied to gut health; oxytocin grows through trust, touch, and belonging; GABA quiets the nervous system. These are shaped by light exposure, movement, food quality, sleep, safety, and social connection — exactly the levers you'll use in this guide.

Vagus Nerve — Switch from Fight or Flight to Rest and Digest

The vagus nerve links brain, heart, lungs, and gut. When active, heart rate slows, digestion improves, and the body releases the brake on recovery. You can stimulate it gently, without devices, several times a day. Over weeks this builds vagal tone and reduces cortisol surges.

Vagus Nerve Techniques (Prose Guidance)

- **Slow breathing:** Sit with one hand on the belly. Breathe in through the nose for a count of four, pause for two, then breathe out softly through the mouth for six to eight. Keep shoulders relaxed. After two minutes most people feel a clear drop in tension.
- **Humming or soft chanting:** A low, comfortable sound vibrates the vocal cords and throat where vagal branches pass. One to three minutes can shift the body toward calm without effort.
- **Gargling:** A short gargle with water engages throat muscles and can gently wake up vagal pathways. Keep it light; it should not be harsh or painful.
- **Cool water:** Splash the face or briefly apply a cool pack wrapped in cloth to the sides of the neck. Start mild and avoid extremes if you have heart or blood pressure concerns.
- **Gentle touch:** Lightly massage behind the ears and along the side of the neck. Do not press hard over the carotid artery. The aim is soothing, not force.
- **Grounded movement:** Unhurried walking, yoga, tai chi, or qigong combine breath and motion and are reliable ways to keep the nervous system balanced.

Daily Rhythm Blueprint (Prose)

Morning: Open curtains and seek outdoor light within an hour of waking. Take ten slow breaths or hum for a minute. Eat a balanced breakfast if your energy or mood dips mid morning. Move the body gently — a short walk is enough.

Midday: Protect a short movement break to reset attention. Drink water regularly. If caffeine makes you wired later, set a personal cut off time. Keep lunch unhurried and include vegetables, protein, and complex carbohydrates.

Evening: Begin winding down an hour before bed. Dim lights, reduce scrolling, and do a brief breathing or humming practice. Aim for a consistent sleep window; bodies love predictability.

Nutrition for Steadier Hormones (Prose)

- **Build meals around protein, colourful plants, whole grain or starchy carbohydrates, and healthy fats.** This evens blood sugar and reduces cortisol spikes.
- **Eat slowly.** Chewing and pace affect digestion and satiety signals that talk to the brain via the vagus nerve.
- **Hydrate.** Even mild dehydration can feel like anxiety and can raise perceived stress.
- **Consider fermented foods if tolerated** (live yoghurt, kefir, sauerkraut). A healthier gut often means steadier mood.
- **Alcohol and ultra processed foods can disturb sleep architecture and next day cortisol; keep them occasional.**

Movement That Calms Rather Than Drains

Aim for most days to include light to moderate activity. If intense training leaves you wired, reduce volume or add extra recovery. Strength training twice weekly at your level supports insulin sensitivity and a steadier metabolism.

Mindset, Safety and Connection

Perceived threat drives cortisol. Simple reframes, journalling, or brief grounding can lower the sense of danger. Time with trusted people, pets, or communities reliably lifts oxytocin and helps the nervous system settle.

When to Seek Medical Advice

- Severe or persistent fatigue, especially with breathlessness, dizziness, or new pain.
- Noticeable weight change, hair thinning, or skin changes that continue for weeks.
- Menstrual irregularities, hot flushes, or very low libido that trouble you.
- Worsening anxiety, low mood, or sleep that does not improve after consistent self care.
- History of thyroid disease, diabetes, or endocrine conditions — arrange routine reviews.

Notes & Personal Plan

Use this space to sketch the two or three practices you will repeat daily for the next fortnight. Keep them small and achievable. Reassess at the end of two weeks and adjust.

- [illegible]

Disclaimer

This guide is for general information only and is not a substitute for medical advice, diagnosis, or treatment. If you are concerned about symptoms or medications, speak with your GP or a qualified health professional. If you are in crisis, seek urgent help.

© 2025 FreeFitFuel™ — Mind & Body in Balance