

LIFESTYLE AS MEDICINE

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The Body Under Stress

How our thoughts, emotions and circumstances can drive physical changes throughout the body

‘Emotions and Stress’ is one of the pillars we always talk about in the Living Well Course. Many of us understand that the mind and body are closely linked — but what actually happens in the body when we are under stress?

Stress is not simply something we feel. **It is something the body does.** When the stress response is repeatedly activated, or never properly switched off, it can affect immune function, metabolism, sleep, mood, pain, cognition and behaviour.

1. What actually happens when we're stressed?

We need stress. **Acute stress is a normal part of daily life.** Getting up and out of the house on time, managing pressures and challenges at work, juggling family life — all require us to respond to demands.

Think of it as the body's ‘**turbo charge**’.

Acute stress activates the sympathetic nervous system — our ‘fight or flight’ response — through the release of adrenaline and noradrenaline. It also activates the HPA axis*, which leads to the release of cortisol.

This response is highly adaptive. It increases alertness, mobilises energy and prepares us to respond to a challenge.

But, just like a herd of gazelles escaping a lion, **once the chase is over, we need to stop running.** The parasympathetic nervous system — our ‘rest and digest’ system — helps the body settle and recover.

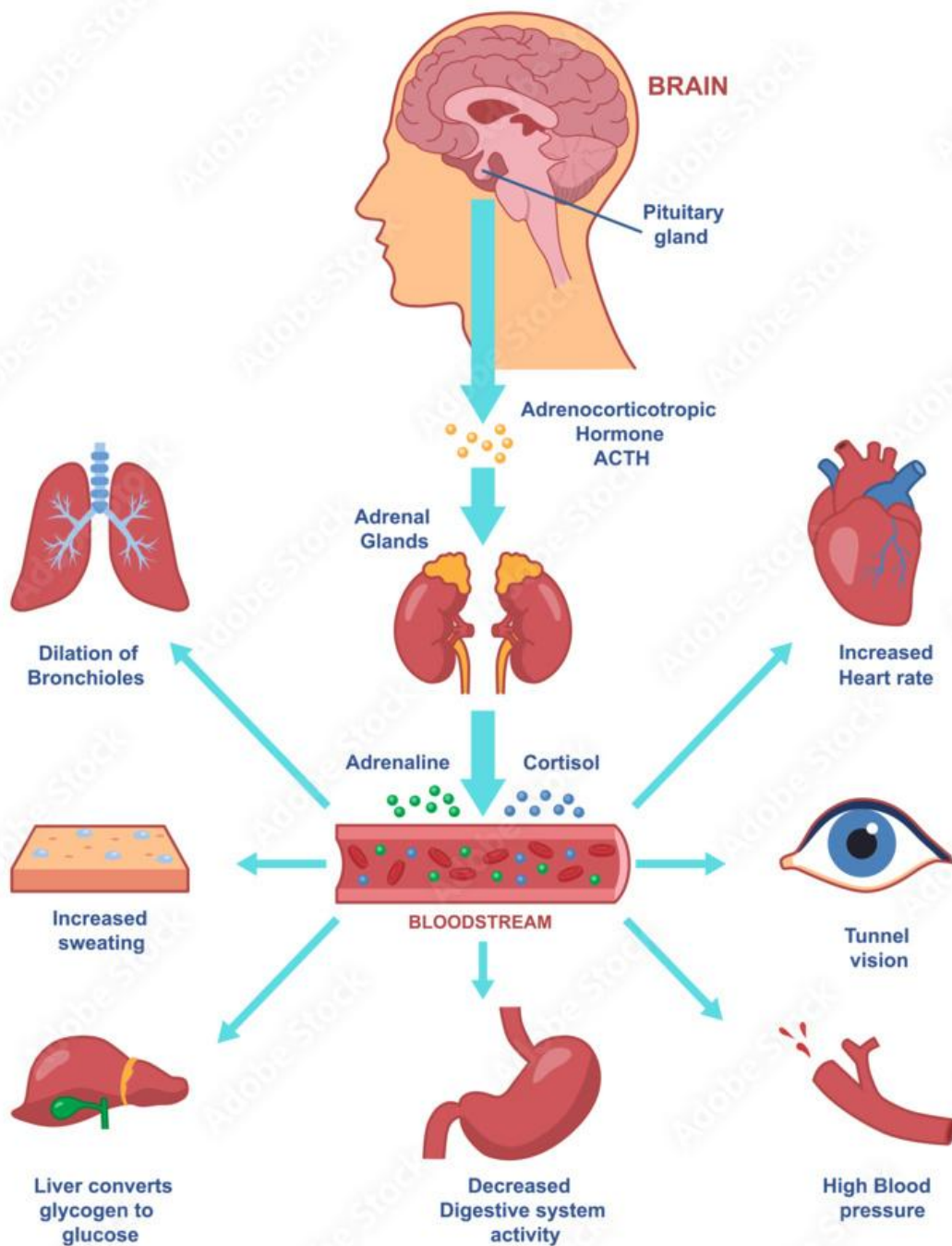
The problem is that the lives many of us lead — partly self-induced, and partly driven by work, family and social circumstances — don't always allow enough time for that recovery.

So normal, acute stress can become chronic stress.

The stress response is designed to be there when we need it. We run into difficulties when it is activated repeatedly, when the demands never seem to stop, or when we don't have enough opportunity to recover between episodes of stress.

* **HPA = hypothalamic–pituitary–adrenal axis**, the system linking the brain and adrenal glands that plays a central role in the body's response to stress.

STRESS RESPONSE



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Acute stress

short lived
adaptive
followed by recovery

Chronic stress

Persistent or repeated
can become maladaptive
inadequate recovery

What does chronic stress actually do?

🧠 Brain and mood

Stress can affect sleep, concentration, emotional regulation, anxiety and mood.

🔥 Immune system

Chronic stress can alter immune and inflammatory regulation.

⚡ Metabolism

Repeated stress responses affect glucose regulation, insulin sensitivity, appetite and energy metabolism.

These systems don't work independently. The brain, nervous system, hormones, immune system and metabolism are constantly communicating with each other.

Next Newsletter will look in greater detail about how stress affects each of these areas.



Take a few minutes to reflect

How is your stress load?

Body

- How well am I sleeping?
- Am I more tense, tired or physically symptomatic than usual?
- Has my appetite or weight changed?

Mind

- Am I more irritable, anxious or emotionally reactive?
- Am I worrying or ruminating more?
- Is my concentration or enjoyment of life changing?

Behaviour

- Am I exercising, eating or drinking differently?
- Am I withdrawing from people or activities?
- Am I finding it difficult to switch off?



Ask yourself: After a stressful day, can I switch off and return to my usual state?

And Finally

Stress affects the whole body, not just the mind.

I've had some very practical lessons in living with stress this summer, which have made me look at stress with fresh eyes — and think about what I need to learn for myself about managing it.

We are very good at helping other people to look after themselves. But, as they say before every flight, **“Put your own oxygen mask on before helping anyone else.”**

Perhaps the same applies to stress. If we want to help others, we also need to recognise when our own stress load is becoming too great — and give ourselves permission to recover.

Jen

If you are someone who- like me- has had to stop and think, here is a short tool to help you reflect:

Where does my current stress level score?

● **Recovering well:** Stress comes and goes; sleep and mood return to normal; you can relax and enjoy things.

● **Under strain:** Stress is becoming persistent; sleep, mood, appetite or concentration are changing; recovery takes longer.

● **Overloaded:** You feel constantly “on edge”, exhausted or overwhelmed; sleep and functioning are significantly affected; you're struggling to recover even when you have the opportunity.

NB This is a **reflective tool, not a diagnostic test**. If you, or someone you know, has persistent physical or psychological symptoms, particularly significant anxiety, depression, insomnia or exhaustion, don't simply assume it's “stress” and consider seeking professional assessment.

If you are a GP affected by stress, there is currently an offer available through the education hub (or send me an email and I'll forward the application form)

Akeso Coaching:

Free Coaching for GPs in the East of England Confidential, clinician-led coaching to help you reflect, recharge and plan your next steps.

Lifestyle Messages for Healthcare Workers – 2026

1. **Lifestyle medicine is core medicine** – everyday habits drive most chronic disease risk and recovery.
2. **Small changes matter** – modest, consistent improvements often outperform radical short-term interventions.
3. **Health is more than biomarkers** – patient wellbeing, function, and quality of life matter just as much as numbers.
4. **Food is foundational** – whole, minimally processed foods support metabolic health, inflammation reduction, and energy.
5. **Ultra-processed foods increase disease risk** – reducing them is a key preventive strategy.
6. **Movement is medicine** – regular physical activity improves insulin sensitivity, mental health, and longevity.
7. **Sitting less is as important as exercising more** – encourage frequent movement breaks during the day.
8. **Strength training is essential** – maintaining muscle supports glucose control, independence, and healthy ageing.
9. **Sleep is a clinical priority** – poor sleep worsens metabolic health, mood, and decision-making.
10. **Why we all need a bucket list**
11. **Morning Stiffness.** What is normal and what needs investigation?
12. **The Body under Stress** Part 1

Disclaimer: The information provided in this newsletter is for educational and informational purposes only and is not intended as medical advice. Always consult with a qualified healthcare provider before making any changes to your diet, exercise routine, or health care regimen. The content shared here is based on current research and best practices in lifestyle medicine, but individual needs and conditions may vary. The author is not responsible for any adverse effects or consequences resulting from the use of any suggestions, preparations, or procedures discussed in this newsletter. Jen West