Ready to pop with stress?

JANE SYMONS ASKS THE EXPERTS ABOUT SIGNS OF CHRONIC STRESS, THE UNHEALTHY HORMONAL CHANGES IT CAN TRIGGER – AND COULD A BALLOON BE THE KEY TO BREAKING THE CYCLE?

The Sentinel · 29 Oct 2024 · 20

WE TALK about stress all the time – "it's been a stressful day," "my boss is stressing me out," "try not to stress about it".



But is stress always bad for our health? And what can we do if it has spiralled out of control?

David Crepaz-keay, head of research and applied learning at the Mental Health Foundation, says: "Stress is a natural human response, and we definitely don't want to demonise it. It's an important human trait that gets us through life but it can get out of hand."

Stress is part of the fight-or-flight response that kicked in when our ancestors were under threat. The adrenaline rush, rapid breathing and shut-down of non-vital systems that come with stress, gave them an edge that could make the difference between life and death.

At times, this hard-wired response is useful, but if it takes too long for our body systems to recover, or our stress responses become distorted by trauma or a drip-feed of niggling nervous tension, this onceessential survival mechanism can turn toxic and increase the risk of serious health conditions.

Anna Whittaker, Professor of Behavioural Medicine at the University of Stirling, says: "Stress activates an immune system inflammatory response, and in the short term, that's good because it supports our immune defence. But in the long term, chronic inflammation is associated with many health problems.

"A healthy system is a flexible one that reacts when it should and then recovers quickly. It doesn't overrespond, it doesn't under-respond.

"Part of this is determined by someone's resting levels, and how much scope there is for a safe response."

So, what influences this stress setpoint, and how can we keep stress under control?

YOUR STARTER FOR ZEN

Our baseline level and range of our body's stress response are critical to the impact it has on our health and wellbeing.

Prof Whittaker says this is influenced by factors including our genes, childhood trauma, life experiences and some prescription medicines, such as for high blood pressure.

She says: "People with high or exaggerated physical reactors to stress often have parents who are high reactors or have high blood pressure. But the most common predictor seems to be childhood adversity.

"If a child is living in adverse social conditions, or subject to abuse or neglect, their body may adapt their stress response so they don't have a big response every time something happens. Initially, this would be beneficial, but eventually it leads to chronically low responses to anything stressful."

THE C-WORD

Cortisol is often called the stress hormone and it's used to measure stress. But it also regulates our metabolism, immunity and inflammatory response and influences multiple body systems including cardiovascular, nervous, musculoskeletal and respiratory function.

It even plays a part in the condition of our skin and hair.

So, it's more like a Goldilocks hormone, which we need in just the right amount because having either too much, or too little cortisol is bad for our health and wellbeing.

OVERLOAD

Chronic stress disrupts almost every system in the body, which is why persistently raised levels of cortisol increase the risk of heart disease, stroke, diabetes, high blood pressure and metabolic disorders such as diabetes. It also suppresses the immune system, making us more susceptible to infections and slower to shake them off.

During the pandemic, researchers at Imperial College London discovered that patients with very high cortisol levels were significantly more likely to die from Covid-19.

There is also a clear link between stress and autoimmune conditions such as rheumatoid arthritis, multiple sclerosis and Crohn's disease. Four in five people with autoimmune disease experience an episode of extreme stress immediately before developing symptoms. A study in the journal Autoimmune Review reported: "Not only does stress cause disease, but the disease itself also causes significant stress in the patients, creating a vicious cycle."

Stress also amplifies your pain and undermines our ability to cope with discomfort.

REACTION RISKS

Prof Whittaker says that having a "blunted" stress response and low levels of cortisol is also unhealthy.

"Low-responders are more at risk of addiction because they are unconsciously more likely to seek out rewards because they don't experience the brain activation of certain areas you expect in response to stress or positive stimuli.

“There is also some evidence that low reactors are also slow to recover from stress. We can’t say that it’s a direct pathway from down-regulating their cortisol or blood pressure and heart rate responses to stress, but this pattern does relate to negative psychological factors like depression, anxiety, as well as some long-term health conditions.”
Persistently low levels of cortisol have been linked to chronic pain and fatigue, including long-covid.
“Both ends of the stress reactivity spectrum seem to be associated with poor health, albeit via different pathways,” she adds.

BE ALERT TO BEING ON ALERT

A surge in stress is associated with easily recognised symptoms such as rapid breathing and heart-rate, sweaty palms and nausea, but prolonged stress can manifest itself in many ways.
David says: “It’s really good to be aware of your own stress responses.
“Friends and family are often more likely to recognise something is wrong, but behavioural clues include eating more, changes to sleep patterns and increased irritability.”
Other red flags include headaches, muscle pain, indigestion, constipation or diarrhoea, feeling tired all the time, blurred vision, rashes and hives.
“Some people feel overwhelmed, and this can be very worrying, particularly if there is no obvious cause,” says David. “Sometimes just accepting this feeling is a stress response can be helpful.”

WORK STRESS

Having a stressful job increases the risk of heart disease, but those at highest risk are people who have stressful jobs who also feel they have little control and few rewards in terms of salary, recognition and feedback from colleagues.
Canadian researchers found job strain alone increases the risk of heart disease by 49%, but coupled with what they called “effort-reward imbalance” it leaps 103%.

BREAK THE STRESS CYCLE

When you’re feeling stressed, try to get moving. “Physical exercise is helpful because you are doing what your body wants you to do, using those stress hormones which motivate activity,” Prof Whittaker says.
Because physical activity burns off cortisol and adrenaline, another hormone activated by our fight-orflight response, studies show it protects against future stressors and the likelihood of turning to unhealthy foods or substances at times of stress.
David says that distraction activities such as housework and ironing can help break the stress cycle, and bring a reward from tasks completed.
Walking or gardening are useful as time spent in nature reduces cortisol levels and self-reported stress.
Deep breathing is known to lower stress, but blowing up balloons could be better.
Researchers have shown blowing up three balloons a day, three times a week for six weeks, reduces stress while also increasing lung capacity.

DE-STRESS ROUTINES

Cognitive behaviour therapy (CBT) can help to find solutions for stressful problems and change the unhelpful thoughts and behaviours that may exacerbate stress.

David also suggests avoiding screens for at least 30 minutes before bedtime and trying mindfulness or meditation.

Progressive muscle relaxation, where you systematically tighten and relax the body's main muscle groups is a good idea – online audio guides can talk you through it.

The NHS also provides useful resources, search "NHS stress busters" for tips and advice.

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David Crepaz-keay from the Mental Health Foundation