- Stress / Burn Out (Psychology) / Depression

Stuck in Fight or Flight-mode? 5 Ways to Complete the 'stress cycle', Avoid Burnout or Depression

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Can you remember a time when you felt stressed leading up to a big life event and then afterwards felt like a weight had been lifted? This process – the ramping up of the stress response and then feeling this settle back down – shows completion of the "stress cycle".

Some stress in daily life is unavoidable. But remaining stressed is unhealthy. Chronic stress increases chronic health conditions, including heart disease and stroke and diabetes. It can also lead to burnout or depression.

Exercise, cognitive, creative, social and self-soothing activities help us process stress in healthier ways and complete the stress cycle.

What does stress cycle look like?

Scientists and researchers refer to
the "stress response", often with a focus on the fight-or-flight reactions. The phrase the "stress cycle" has been made popular by self-help experts but it does have a scientific basis.

The stress cycle is our body's response to a stressful event, whether real or perceived, physical or psychological. It could be being chased by a vicious dog, an upcoming exam or a difficult conversation.

Different people will respond to stress differently based on their life experiences and genetics.

Unfortunately, many people experience multiple and ongoing stressors out of their control, including the cost-of-living crisis, extreme weather events and domestic violence.

Remaining in stage 2 (the flight-orflight response), can lead to chronic stress. Chronic stress and high cortisol can increase inflammation, which damages our brain and other organs.

When you are stuck in chronic fightor-flight mode, you don't think clearly and are more easily distracted. Activities that provide temporary pleasure, such as eating junk food or drinking alcohol are unhelpful strategies that do not reduce the stress effects on our brain and body. Scrolling through social media is also not an effective

way to complete the stress cycle. In fact, this is associated with an increased stress response.

Stress and the brain

In the brain, chronic high cortisol can shrink the hippocampus. This can impair a person's memory and their capacity to think and concentrate.

Chronic high cortisol also reduces activity in the prefrontal cortex but increases activity in the amygdala.

The prefrontal cortex is responsible for higher-order control of our thoughts, behaviours and emotions, and is goal-directed and rational. The amygdala is involved in reflexive and emotional responses. Higher amygdala activity and lower prefrontal cortex activity explains why we are less rational and more emotional and reactive when we are stressed.

There are five types of activities that can help our brains complete the stress cycle.

1. Exercise – its own complete stress cycle

When we exercise we get a short-term spike in cortisol, followed by a healthy reduction in cortisol and adrenaline. Exercise also increases endorphins and serotonin, which improve mood. Endorphins cause an elated feeling often called "runner's high" and have anti-inflammatory effects.

When you exercise, there is more blood flow to the brain and higher activity in the prefrontal cortex. This is why you can often think more clearly after a walk or run. Exercise can be a helpful way to relieve feelings of stress.

Exercise can also increase the volume of the hippocampus. This is linked to better short-term and longterm memory processing, as well as
reduced stress, depression and anxiety.

2. Cognitive activities negative thinking
– reduce

Overly negative thinking can trigger or extend the stress response. In our 2019 research, we found the relationship between stress and cortisol was stronger in people with more negative thinking.

Higher amygdala activity and less rational thinking when you are stressed can lead to distorted thinking such as focusing on negatives and rigid "black-and-white" thinking.

Activities to reduce negative thinking and promote a more realistic view can reduce the stress response. In clinical settings this is usually called cognitive behaviour therapy.

At home, this could be journalling or writing down worries. This engages the logical and rational parts of our brain and helps us think more realistically. Finding evid-

ence to challenge negative thoughts ("I've prepared well for the exam, so I can do my best") can help to complete the stress cycle.

3. Getting creative – a pathway out of 'flight or fight'

Creative activities can be art, craft, gardening, cooking or other activities such as doing a puzzle, juggling, music, theatre, dancing or simply being absorbed in enjoyable work.

Such pursuits increase prefrontal cortex activity and promote flow and focus.

Flow is a state of full engagement in an activity you enjoy. It lowers high-stress levels of noradrenaline, the brain's adrenaline. When you are focussed like this, the brain only processes information relevant to the task and ignores non-relevant information, including stresses.

4. Getting social and releasing feel-good hormones

Talking with someone else, physical affection with a person or pet and laughing can all increase oxytocin. This is a chemical messenger in the brain that increases social bonding and makes us feel connected and safe. Laughing is also a social activity that activates parts of the limbic system – the part of the brain involved in emotional and behavioural responses. This increases endorphins and serotonin and improves our mood.

5. Self-soothing

Breathing exercises and meditation stimulate the parasympathetic nervous system (which calms down our stress responses so we can "reset") via the vagus nerves, and reduce cortisol. A good cry can help too by releasing stress energy and increasing oxytocin and endorphins.

Emotional tears also remove cortisol and the hormone prolactin from the body. Our prior research showed cortisol and prolactin were associated with depression, anxiety and hostility.

Action beats distraction

Whether it's watching a funny or sad movie, exercising, journalling, gardening or doing a puzzle, there is science behind why you should complete the stress cycle.

Doing at least one positive activity every day can also reduce our baseline stress level and is beneficial for good mental health and wellbeing.

Importantly, chronic stress and burnout can also indicate the need for change, such as in our workplaces. However, not all stressful circumstances can be easily changed.

Remember help is always available.

If you have concerns about your stress or health, please talk to a doctor.