

Fight or Flight!

Understanding your stress response



STRESS
AWARENESS
MONTH
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Stress occurs when we are faced with a perceived threat that we do not feel we are able to cope with a stressor, for example, a new experience outside of our comfort zone; an exam or divorce; house move, bereavement or job loss. It may also be a combination of factors where we feel a loss of control or lack of support or being overwhelmed.

Stress is a biological and physical response to these threats. It can be sudden and quite severe leading to an increase in heart rate, breathing more rapidly, loss of appetite and sudden feeling of energy.

Our eyes and ears send information to the amygdala a structure deep in the brain about the size and shape of an almond, that plays a major role in our stress response. The amygdala processes the images and sounds and decides whether it is stressful, and this decision could use previous experience i.e., memory to make a judgement. If the brain decides that the situation is stressful then the “hypothalamus” is triggered.

The hypothalamus

The hypothalamus is a part of the brain found at the base of the skull that has a function of linking the nervous system to the endocrine system via the pituitary gland. The endocrine system is a series of glands that produce and secrete hormones that the body uses for a wide range of functions including our metabolic system. When we become stressed, the hypothalamus triggers the stress response to the pituitary gland which produces a hormone called ACTH which stimulates the adrenal gland to produce corticosteroids. Cortisol's are then produced which releases stored sugar from the liver leading to an energy response; reduces swelling (in the case of injury) and suppresses the immune response. The adrenal medulla which is part of autonomic nervous system (ANS), is triggered subconsciously.

This produces the adrenaline hormone which, gets the body ready for a fight or flight response. It does this by awakening the sympathetic nervous system (**flight and fright**) and dampens activity in the parasympathetic nervous system (business as usual). All this happens very quickly so that reactions are very fast. Adrenaline decreases digestion and increases sweating, increased pulse and blood pressure in other words it gets the heart racing. The body goes into survival mode and therefore cannot really think about anything else; it is like having a getaway car ready and waiting which can make it hard to focus on anything other than the stress. This is part of the reason why we can't just think our way out of stress. No ill effects occur from a short-term stress response or a flight and fright response. Cortisol released during our stress response also suppresses the immune system, making us less able to fight off illness. Muscle tension increases, which can cause or worsen pain and migraines. Since our digestive system is less active during stress, that can lead to some unpleasant effects, like bloating, nausea, or diarrhoea.

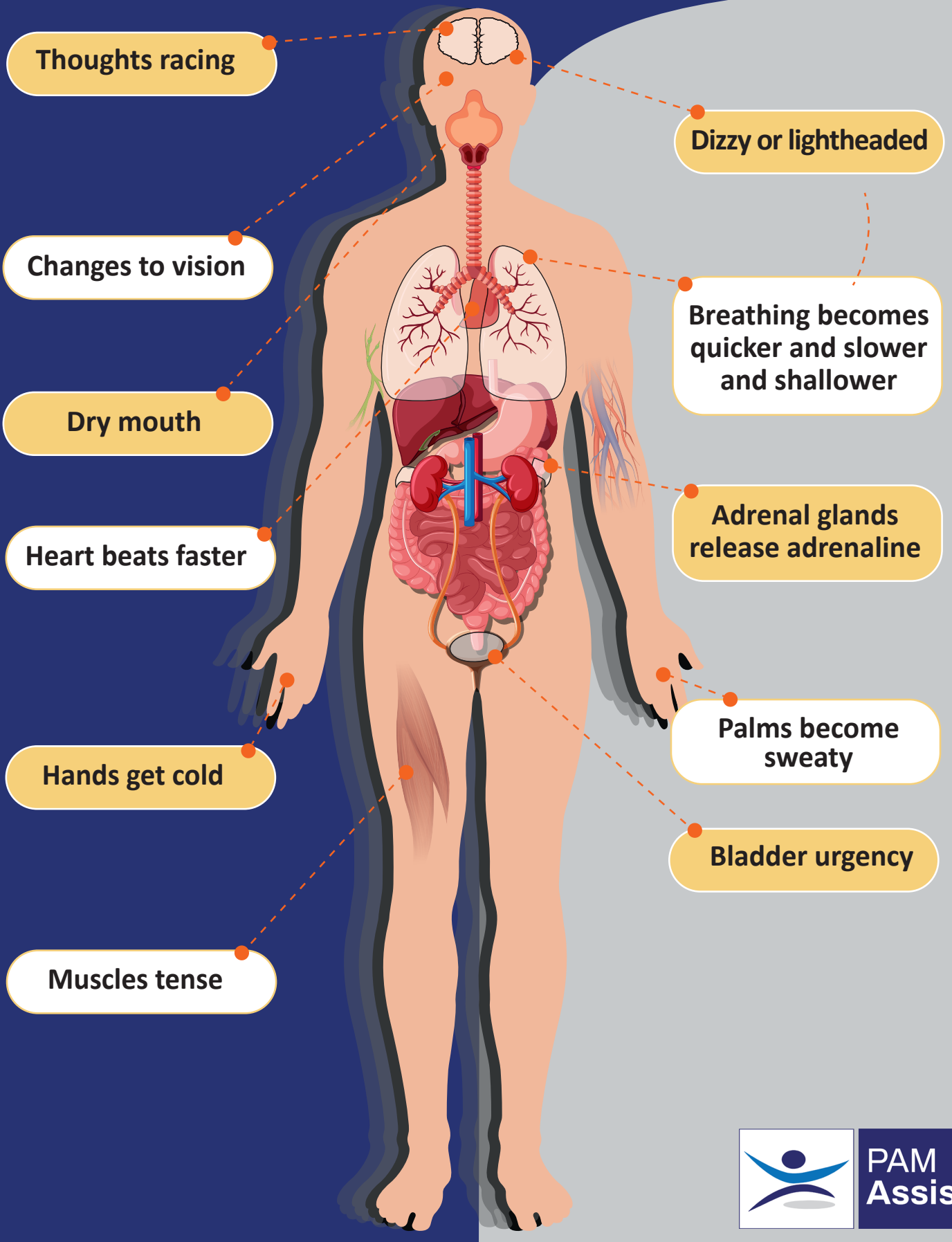
Once the ‘threat’ is over the parasympathetic branch takes control and brings the body back to neutral. However, if the stress remains long-term then the risk of heart problems can occur. Therefore, we need to do everything we possibly can to manage that stress. Identifying a cause of ongoing stress and addressing the cause is really important. If it is work related stress, speak up and discuss it with your line manager or HR team. This is called taking control and is an important part of finding a solution and is important for addressing any cause of stress.

- Be active, exercise reduces emotional intensity and clears your thoughts
- Set time for yourself such as socialising and relaxing
- Set yourself a goal or challenge as this can build resilience
- Avoid unhealthy habits like smoking, caffeine and alcohol as these are unhelpful coping strategies
- Help other people as this leaves you with a feeling of wellbeing
- Be positive

THREAT SYSTEM

(Fight or Flight)

The 'fight or flight' response gets the body ready to fight or run away. Once a threat is detected your body responds automatically.



**PAM
Assist**