Wellbeing
SUPPORT

PART 1: STRESS, TRAUMA AND YOU

Stress and switching off

Welcome to a five part series of Fact Sheets on stress and trauma. The series will be looking at different aspects of stress and trauma, the differences and similarities, their impacts on emergency services workers, and ways to manage your reactions.

This fact sheet will explore exactly what stress is, how it affects the body and brain, and ways to switch off and reduce the impacts of stress.

All of us experience a range of stressors as we go about our daily lives. Stress comes from a range of sources, and can be physical (such as that experienced through physical exertion), or psychological (grief, family issues, work demands etc.).

Stress can have a major influence on our mood, our sense of well-being, our behaviour and our health, so it is important to be aware of when we are experiencing stress and learn ways to manage it.

What is stress?

The term 'stress' refers to a person's response to something that places psychological or physical demands on him or her. It can be caused by almost anything – environmental, social, physiological and psychological factors can all cause stress. It can affect anyone at any time, although the response can vary according to personal and environmental factors.

In a fast-paced world of multiple demands and technology that keeps us switched on, stress is often synonymous with distress. But this is not always the case, as the experience or interpretation of the stressor can be positive or negative.

The Chinese translation of stress involves characters that represent 'danger' and 'opportunity' combined.

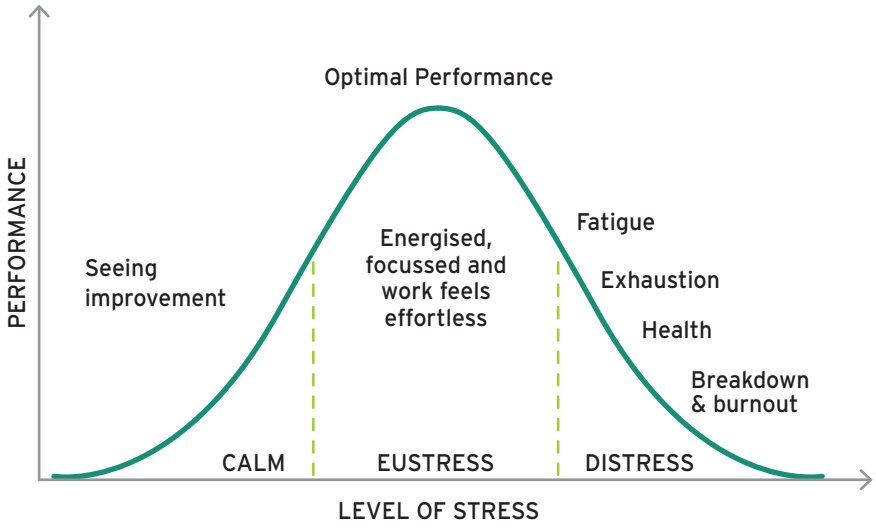
Small amounts of stress may be desired, beneficial and even healthy. Stress can be motivating, energizing and positive when it is short term, and is perceived to be within our coping ability. This is known as *Eustress* and it can help us to increase focus and improve performance.

Kevin Gilmartin, the author of Emotional Survival for Law Enforcement, states that for many in law enforcement (and by extension, emergency services), experiencing the stress reaction in mild doses, particularly in the early years, makes their career exciting and satisfying.

The *Beyond Blue* study, *Answering the Call*, also reported that emergency services workers found their work meaningful and rewarding, but also stressful and demanding.

Di-stress, or negative stress, is when the situation exceeds our coping abilities, causes strain, triggers anxiety and concern, overwhelms us, decreases performance, and generates unpleasant feelings. In the *Answering the Call* study, emergency services workers were found to have substantially higher rates of distress compared to the Australian population.

Both eustress and distress are shown on this graph to illustrate how stress affects performance.



The Stress Response

Our response to stress involves two parts – the psychological perception of the pressure or stressor, and our body's response to it.

The stress response begins in the brain. The brain assesses threat based on the interpretation of sensory information as well as stored memories (what happened last time in a similar situation). Even though the stressors we face today are different to those of our ancestors, the response is still the same.

It's the thought that counts...

Because of the mind/body connection, as soon as you interpret something as a threat, the body reacts, whether we are in actual danger or not – for our brain, our thoughts are reality. However we can interpret many things that are not life-threatening as 'dangerous', such as traffic jams, work pressure and conflict, thereby increasing the potential sources of stress.

A perception of threat triggers off a rapid sequence of hormonal changes and physiological responses that are coordinated by a part of the brain called the hypothalamus. This acts like a command centre and communicates with the rest of the body via the nervous system so that the person can either fight or flee. This combination of reactions is also known as the "fight or flight" response (also known as the "fight, flight or freeze" response).

There are two stages to the stress response to accommodate threats of different degrees and lengths. Short term stress responses are produced by the "fight or flight" response, while long term stress is controlled by something called the Hypothalamic Pituitary-Adrenal (HPA) Axis.

Fight or flight activates the sympathetic nervous system (SNS) like an accelerator in a car, providing a burst of energy to respond to the threat. The hormone adrenalin is released, and brings on a number of physiological changes that ensure the body is prepared by sending energy towards vital areas (the heart, muscles, lungs, senses), and away from non-vital functions (such as digestion).

As the initial flood of adrenalin subsides, the second component, known as the HPA axis is activated. This relies on a series of hormonal signals to keep the sympathetic nervous system, or the accelerator, pressed down, and triggers the release of the hormone cortisol, ensuring the body stays revved up and on high alert.

Cortisol ensures a steady supply of blood sugar, which helps to cope with prolonged stressors, heightens memory, lowers sensitivity to pain, and helps the body return to normal. When the threat has passed, cortisol levels decrease, and the parasympathetic nervous system – the brake – takes over, dampening the stress response.

The parasympathetic nervous system is also known as the "rest and digest" or the "relaxation" response, and acts in opposition to the sympathetic nervous system that activates the "fight or flight" response. They work in opposition to ensure the body is kept in balance.

Chronic Stress

While acute stress responses can be adaptive and not cause health issues, repeated activation of the stress response over time can take a toll on the body. Persistent adrenalin can damage blood vessels and arteries and increase blood pressure, while chronic low-level stress keeps the HPA axis activated and cortisol being released, which is a bit like a motor that is idling high for too long.

Research suggests chronic stress contributes to a range of health issues, such as decreased immunity, cardiovascular issues and obesity.

Given that cortisol plays a key role in sleep-wake patterns, chronic low level stress can have significant impacts on sleep, rest and everyday functioning. This is even more so for those who work shift work, where you are dealing with the challenge of both shift patterns as well as hormonal impacts on your sleep.

What are the symptoms of stress?

It is important to be aware of how you individually experience stress, so that you can identify the signs and use effective strategies to manage it.

We typically experience symptoms across four domains: physical, emotional, mental/cognitive, and behavioural. Here are some examples of common reactions to stress, but is not an exhaustive list:

PHYSICAL
Fatigue/lethargy
Headaches
Muscular tension/aches
Sleep disturbance
Upset stomach/ gastrointestinal symptoms
Sweating
Teeth grinding/jaw clenching
Dizziness
Agitated
High blood pressure
Changes in sex drive

COGNITIVE/MENTAL
Changes in alertness
Poor motivation
Trouble remembering parts of the incident
Time distortion
Disturbed dreams
Preoccupied with memories of the incident
Intrusive thoughts
Confusion
Poor attention/concentration
Easily distracted
Self-doubt

EMOTIONAL
Anxiety/worry
Low mood
Overwhelmed
Disconnected or numb
Shock
Guilt
Anger/Irritability
Agitation
Easily upset

BEHAVIOURAL
Inability to rest
Changes in interest/participation in social activities
Changes in appetite, activity, sleep, sex
Increased alcohol, smoking, drugs or food intake
Restlessness
Falling behind or avoiding work

Many people find it easier to recognise symptoms in a particular domain. For many this might be the physical domain due to the physiological effects of stress.

YOUR BODY ON STRESS

SHORT-TERM STRESS RESPONSE

Stress affects

HYPOTHALAMUS

sends nerve signals to

SPINAL CORD

sends nerve signals to

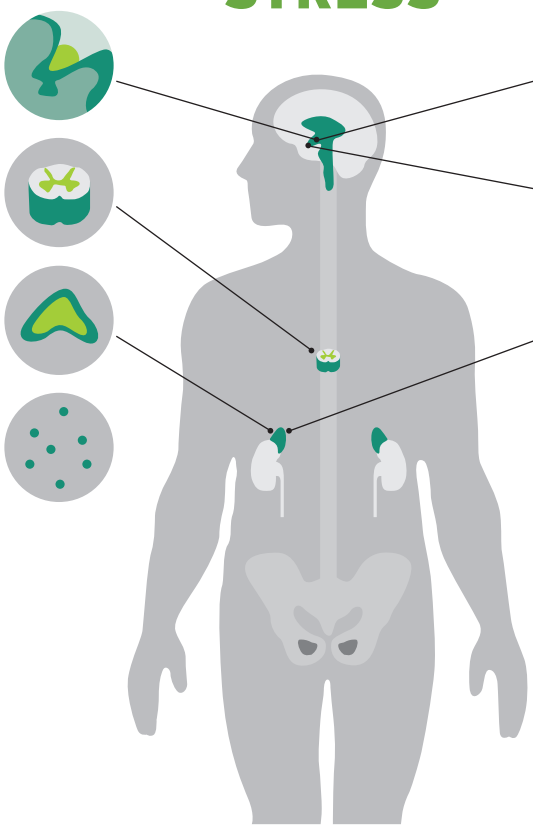
ADRENAL MEDULLA

secretes

ADRENALINE & NORADRENALINE

leads to

- Rising of blood sugar levels
- Higher blood pressure
- Faster breathing
- Faster metabolism
- Increased attention
- Slower digestion and lower kidney function



LONG-TERM STRESS RESPONSE

Stress affects

HYPOTHALAMUS

releases ACTH to

ANTERIOR PITUITARY GLAND

sends ACTH to

ADRENAL CORTEX

secretes

CORTISOL & ALDOSTERONE

can lead to

- Higher blood volume
- Higher blood pressure
- Processing of proteins and fat to glucose
- Higher blood sugar levels
- Immunosuppression
- Cardiovascular diseases
- Lower production of sexual hormones
- Kidney failure

Stress in emergency service roles

Being in an emergency services role has unique challenges. In the work environment, not only do you face fairly common work stressors that other occupations face, such as conflict and workload for example, but the nature of your work means you are regularly exposed to events that are outside the normal human experience and potentially traumatic. By this very definition, your roles require you to be faced with repeated stressful experiences.

We will be looking at this in more detail later in the Series.

So what can I do?

With modern lifestyles keeping us switched on and our attention being demanded by numerous sources, many people find it difficult to put the brakes on stress. For those in emergency services, this can be even more difficult due to the arousal patterns that are caused by repeated exposure to stressful or traumatic events that often don't allow for sufficient rest and recovery. This will be explored in more detail in Part 2 of the Series.

The first step is to set yourself up for good mental health and wellbeing as much as you can, which will help you withstand the impacts of stress. You can do this by making improvements in, or maintaining good habits in diet, exercise and sleep.

Next, be aware of the signs and symptoms that are unique to you. Everyone experiences stress differently, so become familiar with how and when you experience stress, so that you are better able to identify it early.

Lastly, it is impossible to prevent or avoid all forms of stress however, so there are strategies that you can use to help manage the physiological and psychological responses to stress. Managing stress involves putting the brake on and engaging the sympathetic nervous system to switch on the relaxation response, but can also involve mental strategies to help with the psychological impacts.

Want further help or resources?

Keep an eye out for other parts to this Series covering the following topics: *When Stress gets Stuck; Stress, Burnout and Trauma; Trauma and PTSD;* and *Traumatic Incidents*.

For more information on mental health and wellbeing check out posts and resources available through MyPulse **www.mypulse.com.au**.

For more about stress and stress management tools and strategies:

The American Institute of Stress **www.stress.org**

www.positivepsychology.com have extensive resources and tips.

www.mindtools.com have an extensive toolkit, for stress management and many more.

www.bebrainfit.com has general mental health information as well as a range of strategies and tips.

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