

Stress – it's not 'all in the mind'!

To many, stress is 'all in the mind' and is regarded as a sign of weakness in others. In fact, stress is a physiological response to danger which is as old as man himself, and one over which we have little control.

Stress is often regarded as an emotional rather than a physical reaction, and even as a sign of weakness in others; an indication that they are not handling normal, everyday pressure well.

Stress is, in fact, a natural physiological response that is as old as man himself, and evolved to allow primitive man to react swiftly in the face of danger, and to protect himself and his dependents. In 1914 Walter B. Cannon first coined the phrase 'fight or flight' to describe the body's response to stressful stimuli.

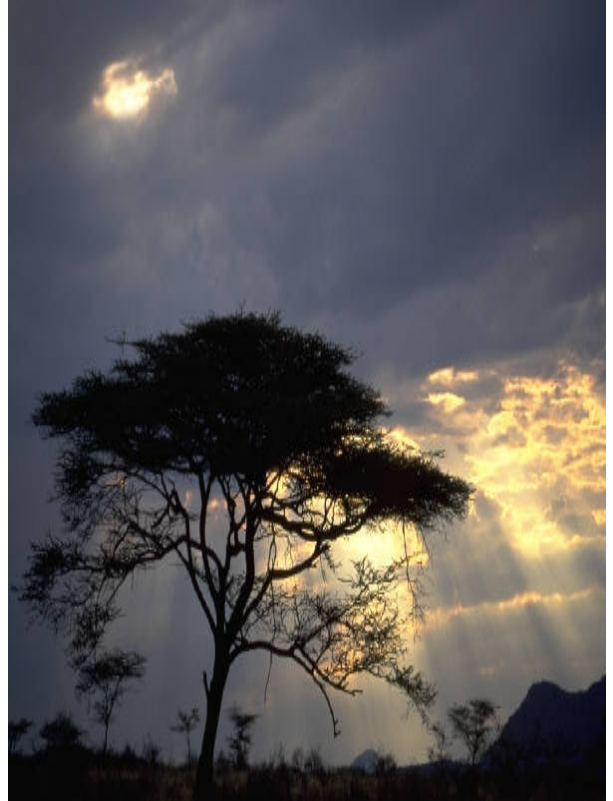
Primitive man was a hunter-gatherer, surviving on nuts, seeds and fruit gathered from the countryside and by preying on small animals – note our forward facing eyes. There are relatively few species higher up the food chain, but he would have wished to avoid the odd tussle with sabre-toothed tigers and bears intent on sharing his dinner.

The stress response allowed our early ancestor to react quickly to danger by causing both mental and physical reactions which prepared him to either stand firm and to fight for his territory, or to avoid confrontation by disappearing with some degree of speed. As soon as the danger was over this chemical response would diminish, and the body would return to normal.

Today we rarely need to do battle with big bears and the like – other than the occasional 'big bear' in the corporate world, that is - but the 'fight or flight' response is still a vital part of our life. This natural response within our bodies allows us to move up a gear to respond to life's challenges, or indeed to avoid physical danger - on our modern roads, for example. This short-lived pressure or stress is not, in itself, a problem providing that we allow ourselves time to relax and recover afterwards. The danger to our physical and mental health is brought about by stress that is unrelenting and continues without allowing our bodies to rest and recover.

THE FIGHT OR FLIGHT RESPONSE

Throughout our day all of our sensory organs, and in particular our eyes and ears, are constantly scanning our surroundings and sending messages to our brain. The brain interprets these signals and as soon as a threat is perceived the brain swings into action, sending out chemical messengers to the rest of the body. These chemicals trigger the release of adrenaline from the adrenal glands directly into the blood stream. We have one adrenal gland on top of each kidney. In less than one minute levels of adrenaline will increase one thousand fold. Adrenaline



produces an instant response in other parts of the body to prepare it for any action that is required.

By examining the physical effects of the basic 'fight or flight' response we can understand how the body prepares itself to address danger.

- The force with which the heart contracts increases **to pump blood more effectively around the body.**
- Blood pressure and pulse rate rise to ensure an adequate supply of blood where it is needed.
- Airways widen and the breathing rate increases to allow **more oxygenated air to reach the lungs.**
- Pupils dilate to widen the field of vision and **to enable clearer vision.**
- Blood is diverted away from the intestines where it will not be needed.
- The blood supply to the brain increases **to allow for clear and quick thinking.**
- The blood supply to the muscles increases and muscles tense **to prepare them for physical exertion.**

- Sweat glands are switched on to **cool the body during sudden exercise.**
- Clotting agents are released into the blood stream to enable the blood to **clot more easily if blood vessels are damaged**, thus reducing blood loss from wounds.
- The bowels may empty (nervous diarrhoea) to **make the body lighter for running**, and this may be accompanied by feelings of nausea.
- The blood sugar level increases as the body's stores are metabolised to **provide energy, strength, power and speed.**

DEFINING STRESS

There are many hundreds of definitions for stress but here are two that sum up the problem succinctly:

1. **'Stress occurs when pressure exceeds your perceived ability to cope.'** (S. Palmer, 1999)
2. **Stress is the uncomfortable gap between...**
 - a) **how we would like our life to be, and**
 - b) **how it actually is.**

LEVELS OF STRESS

If we could measure our stress quickly and easily we would find that the degree of stress will vary from one hour to the next, one week to the next, and so on throughout any given period of time.

Each day our levels will rise when we encounter difficulties. Examples could include:

- Congestion on our roads or rails service as we travel to and from work.
- Suddenly finding that the deadline for a project has been brought forward to this afternoon.
- A difficult conversation with a client.
- Finding the coffee pot empty!

In normal circumstances our level of stress will fall again as soon as problem is overcome and our bodily functions will quickly return to normal; our pulse will slow, blood pressure will fall again and our breathing pattern will slow down to a regular and deeper rhythm.

STRESS AND PRESSURE

It is all a question of getting the right balance between too little and too much pressure, and ensuring that we build rest and relaxation into our lives.

We all need a certain amount of 'positive pressure' to provide sufficient challenge in our lives and to provide that comfortable feeling that we are achieving something worthwhile.

Too Little Pressure

With too little pressure we soon experience boredom and life loses its edge. Job satisfaction declines and relationships become difficult. When we have too little to occupy our time we tend to find things to amuse us and this can manifest itself in disruptive behaviour. We may also become withdrawn as we search for some meaning in life.

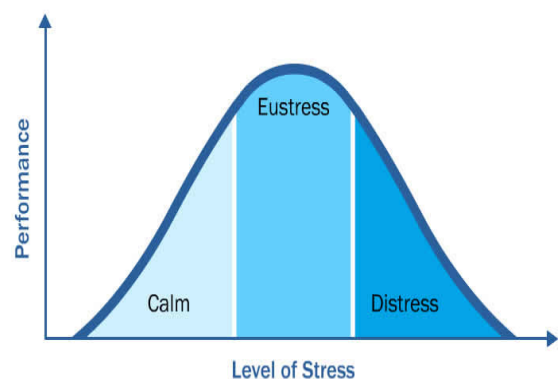
Optimum Pressure

Despite occasional ups and downs life is balanced, work is at a manageable level and job satisfaction is high. We recognize and enjoy our achievements and cruise through our day feeling pleased with our performance and everything in the world around us.

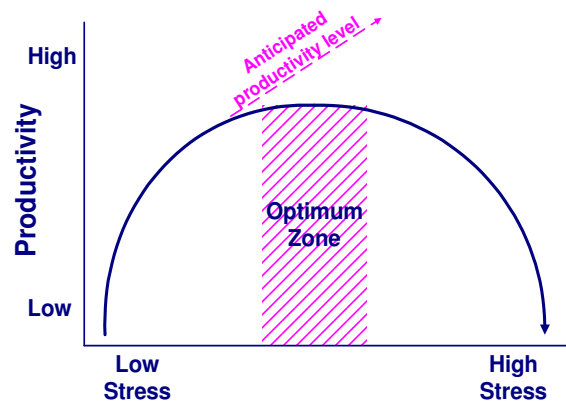
Too Much Pressure

Too much pressure will take your body beyond its ability to function effectively and will invoke the Stress Response.

The chart below depicts that as the stress or pressure increases (along the bottom axis) our level of 'Performance' rises from 'Calm' to 'Eustress' (sometimes referred to as our comfort zone). This region is sometimes referred to as the 'sweet spot' and we can think of this as the point at which stress is neither too high nor too low and that our performance is good, the 'Point of Optimum Performance'.



Many people believe that it is possible for them to put themselves under yet more and more pressure and that their performance or output will still increase in a positive manner. Some even believe that this ability is infinite. When we are functioning just under our level of Optimum Performance **and** still have the reserves and energy we can respond to a new challenge. However, when we push ourselves too far our body will move into physical and mental overdrive, or overload – into **Distress**. Performance falls the further we push ourselves and, if we fail to heed the warning serious physical and mental damage may result.



Where the performance curve hits the bottom axis on the right of the chart is an area known as BURNOUT.

SO, WHEN IS STRESS DAMAGING?

Stress becomes damaging to our physical and mental well-being when it continues relentlessly, and we

provide our body with insufficient opportunity to rest and recover.

We have already noted that when the body comes under stress a chain reaction starts in the brain, prompting the adrenal glands to secrete adrenaline. This process is part of a system known as the Sympathetic Nervous System. At the same time the adrenal glands also produce two further chemicals, noradrenalin (or norepinephrine) and cortisol.

The purpose of noradrenalin is to maintain stable levels of blood pressure once the body senses that the danger is over and begins to restore the body to its normal state. This calming down process is known as the Parasympathetic Nervous System. However, if we remain stressed for long periods of time then the body continues to produce noradrenalin and cortisol, causing blood pressure to remain artificially high. Thus, the dangerous link between stress and high blood pressure is now abundantly clear.

HOW CAN WE RECOGNISE STRESS IN OURSELVES AND OTHERS?

Although stress is not recognised as an illness it is accepted that it can contribute to the severity of other forms of illness or disease.

Our work, our personal life and our relationships can all cause stress, but the cause is normally a combination of all three.

Stress does not usually happen suddenly; in most people stress is insidious and almost imperceptible in its early stages. When we begin to move out of our comfort zone we may notice an increase in headaches, perhaps some muscular tension in our neck, shoulders and across our upper back. We may become irritable or impatient with others, and we may also increase our use of chemical props, smoking, alcohol, caffeine and sweets, as we seek anything that will give us a boost and restore our normal levels of efficiency and confidence.

As time goes on, our sleep may be interrupted causing us to feel tired all of the time, we may withdraw into ourselves, feel hopeless, and we may become anxious or tearful. We may notice that although normally healthy we now seem to pick up any bug or cold that is going the rounds. This is an early warning sign of a compromised immune system.

If we have not taken positive action by now it will not be long before work and relationships start to suffer and stress-related illnesses emerge. Stress has been identified as a factor in many common ailments including high blood pressure, migraine, eczema and back and neck pain in addition to those most readily associated with it; anxiety and depression.

There are many signs and symptoms associated with stress and the comprehensive chart (right) has kindly been supplied by the Carole Spiers Group. Although signs and symptoms fit neatly into three categories in practice we may find that we experience some from each group concurrently. Some will affect us but others may not. In the same way, when keeping a watchful eye on our colleagues we need to remember that what causes stress in one person will be manageable to others. The symptoms a colleague experiences may be totally different to ourselves. Equally some symptoms may appear early on, and

SIGNS AND SYMPTOMS OF STRESS
PHYSICAL
<ul style="list-style-type: none"> • Palpitations, awareness of heart beating, chest pains • Diarrhoea, constipation, flatulence • Indigestion • Loss of libido • Muscle tension • Menstrual problems • Tiredness • Breathlessness • Sweating • Tightness in the chest • Skin and scalp irritation, eczema and psoriasis • Increased susceptibility to allergies • Frequent colds, flu or other infections • Rapid weight gain or loss • Backache, neck pain • Migraines and tension headaches
PSYCHOLOGICAL OR EMOTIONAL
<ul style="list-style-type: none"> • Mood swings • Panic attacks • Morbid thoughts • Low self-esteem • Irritability • Feelings of helplessness • Impatience • Anxiety • Crying • Cynicism • Withdrawal into daydreams • Intrusive thoughts or images • Nightmares • Suicidal feelings • Paranoid thinking • Guilt
BEHAVIOURAL
<ul style="list-style-type: none"> • Susceptibility to accidents • Changes in eating habits • Increased smoking • Restlessness, hyperactivity, foot tapping • Over-dependence on drugs and/or alcohol • Changes in sleep patterns • Out of character behaviour • Voluntary withdrawal from supportive relationships • Disregard for personal appearance • Loss of confidence • Sullen attitude • Clenched fists • Obsessive mannerisms • Increased absence from work • Aggressiveness • Poor time management
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others, such as nightmares and paranoia, much later in the stress cycle.

THE THREE STAGES OF STRESS

Much of the early work into Stress and the Stress Response was conducted by Dr. Hans Selye.

Early experiments by Selye involved stressing rats and recording their reaction. Among Selye's observations were that when the rats became stressed their adrenal glands would swell but if he allowed the rats sufficient time to rest and recover the adrenal glands would return to their original size. Selye then put his rats through experiments where the stress was both severe and unremitting. There appeared to be little change in their behaviour but for no apparent reason they suddenly died. Examination of the adrenal glands showed they had shrivelled up and were now smaller than their original size.

Selye also realised that his rats went through three distinct stages once stress began.

The Alarm Phase

This is really the same as the Fight and Flight response. Initially the body is stimulated into action to determine the nature of the challenge facing us and we may feel excited or fearful depending on the circumstances.

The Sympathetic Nervous System takes over our body and its responses and gears up as previously described. We feel energised by the effect and all our bodily functions speed up, including breathing and pulse rate.

The Resistance Phase

When stress is allowed to continue unabated we will eventually enter the Resistance phase. As time goes on we will start to feel tired and run down and we may struggle with the pressures placed upon us. It is in this phase that physical, behavioural and psychological changes will become evident with headaches, disturbed sleep, irritability and many other symptoms and signs. Minor problems are likely to be blown out of all proportion and relationships will be under pressure. We will placate ourselves with the thought that if we only work harder and for longer everything will come right.

These behavioural changes may be noticed by our colleagues and family members. It is vital that we take action at this stage to alleviate and to manage the stress from which they are suffering. Failure to do so can result in serious consequences.

The Exhaustion Phase

In the Exhaustion Phase everything seem more difficult. We are likely to lose our way in the world, to lose interest in our work and hobbies and yet be unable to switch off from them; we may be awake most of the night worrying but next day we will lack the energy and will to do anything constructive. In short, we are exhausted.

Illness, real and psychosomatic, will add to our misery and we may stop visiting family and friends. At this stage the physical effects of stress will also be taking their toll and we may develop raised blood pressure and other health issues.

Our productivity at work will have fallen off to the point that we may no longer wish to go to work and may take days off at will.

If we still fail to respond to the warning signs we will reach the point at which we can function no longer – **burnout**.

BURNOUT:

Burnout is a physical, mental, and emotional response to constant levels of high stress. Burnout produces feelings of hopelessness, powerlessness, cynicism, resentment and failure—as well as stagnation and reduced productivity. These stress reactions can result in levels of depression or unhappiness that eventually threaten your job, your relationships and your health.

SIGNS AND SYMPTOMS OF BURNOUT

- Chronic fatigue - exhaustion, tiredness, a sense of being physically run down
- Anger at those making demands
- Self-criticism for putting up with the demands
- Cynicism, negativity, and irritability
- A sense of being besieged
- Exploding easily at seemingly inconsequential things
- Frequent headaches and gastrointestinal disturbances
- Weight loss or gain
- Sleeplessness and depression
- Shortness of breath
- Suspiciousness
- Feelings of helplessness
- Increased degree of risk taking

10 THINGS TO REMEMBER ABOUT STRESS

1. Stress is the natural response of the body when confronted by danger.
2. It is not 'all in the mind'.
3. It can happen to any of us – do not feel ashamed to admit that you are feeling stressed.
4. Although stress is not, in itself, an illness it is recognised as a contributory factor in many other illnesses – so don't just ignore it!
5. Recognising the signs and symptoms early on is important – so be vigilant – all the time!
6. We cannot stop stress happening but we can minimise its effects by taking exercise, and getting sufficient sleep and eating a healthy diet.
7. Take time off for hobbies and to spend time with family and friends.
8. Set aside a small amount of time each day to do something that is important to you.
9. The signs and symptoms of stress are common to many illnesses, if you fail to improve see your doctor.
10. Laughter is good for you!