

## Stress – background notes

These notes provide background information for those attending In Equilibrium training courses related to stress management. Please feel free to print them off so you can refer to them at your leisure.

### **What is stress?**

The Health and Safety Executive (HSE) defines work-related stress as:

***"The adverse reaction people have to excessive pressures or other types of demand placed on them."***

It is important to understand that stress has a subjective element – what is a minor irritation for one person, may be a major issue for another. It is also cumulative and we can think of it like a bucket filled to the brim with water where it only takes one drop to make the contents overflow.

There is a difference between short-term pressure where things will return to a normal level, and chronic, unrelenting pressure that may have a negative effect on our physical and psychological health.

Note that pressure itself is not necessarily bad. With the right amount of pressure we can feel challenged, stretched, and this is when we perform at our best. Some people refer to this as 'positive' stress. This may be because we often use the words 'pressure' and 'stress' interchangeably. However, as the definition above makes clear, we are using the word 'stress' to mean an adverse or negative reaction to too many pressures or demands.

A consultation exercise on stress at work carried out by the HSE found that the vast majority of professionals, employers, and trade unionists thought the use of the term 'positive stress' was confusing and unhelpful. This is why the HSE now only refers to 'stress' in the negative sense.

Due to its subjective element, our experience of stress may depend upon our perceptions about the situation we are in and whether we believe we can cope.

Logically then, it follows that if we can reduce pressure and influence perceptions in the right way, the risk will be reduced.

### **What happens to us physically when we have this 'reaction'?**

This instantaneous, acute reaction we have has been called the 'fight-flight response'. The fight-flight response is an automatic physiological reaction we all experience when we perceive that we are under threat. We unconsciously put our bodies into the optimum state to run or fight as effectively as possible.

Like it or not, we still respond physiologically the same way as our hunter-gatherer ancestors. Picture our ancestor sitting by a fire when he sees the

glowing eyes of a sabre-toothed tiger at the edge of the forest. Instantly his body goes into fight-flight mode and in a matter of seconds the following occurs:

- *Digestion slows down.* Blood gets routed to muscles and the brain. Today you may experience this as having a dry mouth and butterflies in your stomach
- *Breathing speeds up.* This is to prepare for action. Try catching your breath after getting scared.
- *Heart races and blood pressure soars.* Blood pressure increases to get blood to all parts of the body to prepare to fight or flee. Recall your own heart pounding in frightening situations.
- *Perspiration cools the body.* Sweating when under stress allows the body to burn more energy. When facing that stressful meeting, do you think about using more deodorant.
- *Muscles tense.* Your ancestor was ready to run from danger. Today you may have a stiff neck or aching back after a hard day.
- *Blood clots faster.* In case of injury you release chemicals to make blood clot quicker.
- *Sugar and fats pour into the blood.* This provides the energy needed to slay an attacker or run for your life. Can you recall having surprising strength and endurance during an emergency?

## **Why have a fight-flight response?**

All these physiological reactions were great for the cave men and women who lived in constant danger. They didn't know when and where the next threat would come from. For our ancestors, the fight-flight response was essential for survival.

Unfortunately, today we still have the same unconscious physiological responses to perceived threats, but we are not faced with life and death situations on a daily basis. But we do still have stress, and lots of it. When we think we are being threatened, we may brace ourselves, but we try to control most other reactions. Dealing with that annoying customer might be stressful, but it's not life threatening. We can't punch the salesperson or the boss on the nose and release all that pent-up stress, no matter how much we'd like to. Instead we take all these brief, but regular hassles and we swallow them or ruminate about them. Psychologists call this 'internalising.' Our bodies call it 'destructive.'

The most important aspect to understand about the fight-flight response is that it is designed to deal with emergency one-off events. Either fighting or running away should use up the extra glucose and adrenaline we pump into our bloodstream. For our health's sake we want our bodies to return to normal as soon as possible. Problems start to occur if we experience this reaction too often without using all this extra energy and the other physiological changes for their intended use.

We all experience 'events' which trigger a fight-flight response. This is not usually a problem and should not affect our health or performance in the longer term. But experiencing the fight-flight response on a regular or chronic basis can lead to the negative effects we call stress.

## Event v chronic stress

We make a distinction between **event stress** and **chronic stress**.

**Event stress** is the negative reaction we have to one-off situations and events that reduces our performance and can upset us emotionally. If however the event stress becomes more frequent, or we constantly feel that we cannot cope, we can start to suffer from **chronic stress**. Unlike event stress, which we usually recover from after a short period of time, chronic stress can stay with us for days or weeks on end. It is the physical and psychological effects of chronic stress that eventually makes us ill.

## Negative health effects of chronic stress

A chronic fight-flight response or 'stress' will quickly change our behaviour for the worse and will eventually damage our health. For example:

- Increased blood pressure: chronic high BP, stroke, heart attack
- Digestion slow down: ulcers, constipation, loss of energy through malabsorption of nutrients
- Increased glucose: blood/sugar imbalance, poss diabetes and sugar blues
- Blood thickening: blood clots, strokes, heart attack, pulmonary embolism.
- General: adrenal glands exhausted, people look for caffeine, sugar, cigarettes to keep themselves going
- The body uses up natural vitamin C and other nutrients and this gradually weakens the immune system.

Because the immune system is weakened your ability to fight infection and viruses is reduced. Therefore, if you have an "Achilles' Heel" and are, for example, prone to sore throats, upset stomachs or headaches, they will occur more often.

## Mental and emotional effects of chronic stress

Our bodies and minds use a lot of energy to maintain the fight-flight response on a chronic basis. As a result, there is not as much energy available to maintain our normal levels of performance in the following areas:

- Memory and concentration start to deteriorate
- We are more easily irritated and get angry at small things
- Confidence levels drop
- Creativity and problem-solving abilities deteriorate
- Loss of interest in job and home life
- Experience moments of panic or despair
- 'Anticipatory anxiety' and worry becomes more frequent
- We become more pessimistic

Chronic stress is generally accompanied by a lowering of mood. This can be caused by feeling constantly under threat, which reduces your confidence and sense of security. Also, physiologically, the production of excess adrenaline will starve the brain of essential nutrients and inhibit the production of serotonin, the natural mood-enhancing hormone.

If left unchecked, your situation can deteriorate to the point where you feel the situation is hopeless and you are powerless to do anything about it. If this downward cycle is not stopped, depressive illness can easily occur.

In fact, the worst recipe for stress is one where you experience unremitting pressure or have excessive demands whilst at the same time feel as if you have little or no control.

## **Recognising the signs of stress**

One of the difficulties with stress is that people experience stress in different ways. This contributes to stress also manifesting itself in different ways. So it would be wrong to over-generalise when giving advice on how to identify stress in others.

What we can say though is that there will be changes in the stressed person. These changes may be emotional, physical or behavioural, or a combination of all three. So the key thing is to look out for negative changes of any kind. Bear in mind that the negative changes are also likely to have knock-on effects e.g. reduced performance at work.

Of course, we all experience 'bad days', so we are really talking about situations where people display these negative changes for a period of time i.e. 5 days in a row.

Examples of negative changes would be:

- Making more mistakes than usual and increased forgetfulness
- A negative change in mood or fluctuations in mood
- Avoidance of certain situations or people
- Increased use of very negative or cynical language
- Becoming withdrawn
- Prolonged loss of a sense of humour
- Increased irritability and shortness of temper
- A change in appearance, esp. evidence of poor self care
- Changed tonality of voice
- Changes in habits e.g. increased smoking, drinking
- Looking haggard or exhausted all the time
- Becoming 'hyper,' manic or irrational

This is not an exhaustive list. The important thing is to become more aware about the wellbeing of others. As you do, you will notice that, where stress is concerned, there are some things you can see and some you can hear, and even some you can feel. It's a good idea to use all your senses to pick up potential problems.

You can use this raised awareness as a kind of 'early warning system:' an indication that you need to do something. It would be wrong to make too many assumptions at this stage, rather, use the 'warning' as a cue to investigate further. Try to find out what is causing the changes you have noticed so that it can be tackled, or appropriate support can be offered to the individual concerned.

## **Stress, pressure and performance**

While vulnerability to stress varies from individual to individual, managers have to assume that their staff are capable of doing their jobs and are able to handle reasonable levels of extra pressure from time to time.

It is important to understand the difference between pressure and stress. When people feel appropriately challenged, they usually experience positive feelings such as excitement and drive. This results in high levels of positive energy and an enthusiasm to work hard and succeed. A person who is 'stressed,' experiences only negative thoughts, feelings and physical sensations which drains their energy and lowers their mood and desire to work hard. A stressed person will want to withdraw energy from a pressurised situation and give up the battle.

Most people react well to the right amount of pressure; we need it if we are to experience the positive feelings of achievement. On the other hand, if there is too much pressure and we experience stress, it produces only negative reactions which will ultimately damage our health and wellbeing.

You should also be aware that pressure is cumulative. If a member of your team is having personal problems at home this reduces the level of pressure they can take at work. Although you have little influence over an employee's personal life, it's difficult to ignore when they are showing signs of stress and poor performance at work.

An individual or a group can respond to pressure in two ways. If the pressure is reasonable, motivated staff will respond in a positive manner that usually results in enhanced performance. If the pressure is unreasonable or excessive, the individual or group will eventually respond in a negative way by showing the symptoms of stress. It is a manager's responsibility to ensure that the pressure or demands are not excessive.

## **Working long hours**

Working long hours does not automatically mean you will increase the risk of stress. The main danger from working consistently long hours is that you could exhaust yourself. It is essential to pace yourself and ensure you balance the work periods with appropriate recovery time. In sports psychology this is referred to as 'periodisation' and is an essential skill for athletes who are building up their fitness for major events like the Olympics.

Working long hours may also be a sign that someone is suffering from stress as they may have to work extra hours to cope with an excessive workload. Or they may feel that they need to work long hours because they lack confidence in their ability to do the job and are worried about their job security.

The key issue here is control. Someone who decides they have to work harder for a specific period, knowing they are in control of the situation and are confident they can rise to the challenge, is unlikely to suffer from stress. Alternatively, someone working long hours on a regular basis because they feel they have no choice, who doesn't feel in control and feels threatened if they refuse, has a high probability of suffering stress.

## **Stress, personality and individual differences**

Stress does depend to an extent on individual differences or personality factors. For example, extraverts are more likely to become energized and thrive off being around other people (e.g. large social gatherings); while introverts would seek to avoid such experiences and would feel very threatened if put into a position of having to take part in them. Personality differences can directly or indirectly lead to stress. If someone is in a role that is a bad fit for their personality, it may cause chronic stress, and if very different personalities are part of a team that can lead to conflict (from a lack of understanding that the other person perceives things very differently), which may also increase the risk of stress.

Everyone and everything has a breaking point but some people are undoubtedly more hardy/vulnerable than others. For example, 'Type A' personalities who are highly reactive, competitive, time driven and ambitious tend to be more vulnerable to stress. The key risk factor for this personality or behaviour type is the level of hostility in the reaction. Those of us who regularly, habitually, react with hostility when we are frustrated, are more at risk of stress. Type B personalities who are more laid back and generally less anxious about life are less vulnerable to stress. The differences between type A and type B are better understood on a continuum, with extreme type A on one end and extreme type B on the other.

In conclusion, we cannot ignore individual differences and personality factors, when seeking to minimise stress risk, or in tackling stress-related situations.

## **Summary**

Stress and pressure are not the same thing. Pressure can be good, and when we feel stretched and challenged, that is an area of peak health and performance. Stress occurs when the pressures or demands become 'excessive', more than our ability to cope at any one time.

A stress reaction stems from the inappropriate use of a physiological reaction we automatically experience when we perceive we are under threat. This reaction is known as the fight-flight response and is designed to maximise the body's ability to fight or run away when faced with a threatening situation.

We need to distinguish between event and chronic stress, when considering risk to our health and wellbeing. One-off stressful events are not generally harmful, because after a relatively short period of time the body returns to normal without sustained negative effects.

Chronic stress can be caused by constant, unremitting pressure or demands (especially damaging when combined with feelings of low control), or by

ruminating and worrying about such situations before and after they occur. It can also occur when someone feels that they are unable to cope and they see themselves as being under constant (psychological) threat.

Recognising stress involves being alert to any kind of negative changes and the effects these negative changes may have. We all experience negative changes from time to time, especially in response to stressful events. That is entirely normal. We should take most notice however when the negative changes we observe are sustained. Such changes may be a strong indication of chronic stress and should not be ignored.

Working long hours may be a sign of stress or a cause of stress in certain circumstances. If people are working excessive hours and are unable to complete their work during their normal working hours, it may be because of excessive workload. This can increase the risk of stress, and as we have seen, if this is combined with feelings of low control it can be a significant risk to health and wellbeing. If on the other hand people are choosing to work additional hours to clear a backlog or complete a project, that is less likely to be harmful. Indeed the exercise of choice (control) in this way may help to prevent the risk of stress in the long run. A decision to work extra hours now may help to avoid pressurised deadlines later on.

Individual and personality differences do have a bearing on stress risk. For example some types of personality are more vulnerable than others. Type A personalities, where people exhibit high levels of hostility in their reactions, increase the risk of stress. More laid back Type B personalities are much less at risk. If an employee's personality or temperament is a bad fit for their role at work this can increase the risk of stress, and may lead to problems in the longer term. We need to bear in mind also how personality might influence perspective. For example, an optimist and a pessimist will see things very differently. What an optimist may perceive as a challenge or a 'buzz', may well be regarded by a pessimist as a hopeless situation.