

# The Effects of Stress

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# The Effects of Stress

## Overview

This resource will help you to:

- Fully understand the physiological responses to stress.
- Understand what creates stress in your life.

### If you want to know more:

Kelly McGonigal: The Upside of Stress: Why Stress Is Good for You, and How to Get Good at It

[https://www.ted.com/talks/kelly\\_mcgonigal\\_how\\_to\\_make\\_stress\\_your\\_friend?language=en](https://www.ted.com/talks/kelly_mcgonigal_how_to_make_stress_your_friend?language=en)

# The Effects of Stress

## Introduction

This manual commences with a chart which identifies the effects of stress, how these relate to the fight or flight response and the long term effects of the reaction if it is not "turned off".

We then look at these two responses as two stages, ie. Flight or Fight response is known as High Drive, and Long Term Stress is known as Constant Red Alert.

When looking at the fight of flight responses consider how this may be useful to you in your working life.

It's important to consider the long term effects of stress – but just because there are serious health dangers associated with stress does not mean that you will suffer from them. The fact that you are learning about stress is an immediate means of reducing stress. Remember that the more you know about your response to stress, the less stress can harm you and the less stressed you become.

Mutual support is vital if you want to get a reduction in harmful stress, whilst maintaining the positive "buzz" of the working environment.

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### The Body's Response

The effects of stress	The flight or fight response	Long term effects	Your experience
<b>Adrenalin, (a hormone), is released into the blood stream.</b>	This hormone pre-warns the body by instigating the increased heart rate and constriction of the arteries, it works in a similar way to the nervous system.	Panic attacks leading to palpitations and increased breathing.	
<b>Release of Endorphins the body's natural pain killers.</b>	This is identical to morphine, and is responsible for that 'high feeling' you may get when working under enormous pressure. You tend not to feel your injuries, so if you have played a complete game of football or tennis, and only afterwards realised you had broken your foot, it was the endorphin that kept you going.	Endorphin levels become depleted and pains are worse than usual (migraine, backache).	
<b>Cortisol is released into the blood.</b>	An allergy response, preventing asthma or closing of the eyes	Cortisol can destroy the body's natural resistance to cancer, infections and illness.	
<b>Thyroid hormones are released into the blood.</b>	Speed up the body's metabolism (the rate at which the body burns energy).  More blood is pumped to the tissues at speed. This helps to get vital energy supplies and oxygen to the right places as they may be quickly depleted.	Shaky and nervous, loss of weight, or over-indulgence to work it even harder	

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The effects of stress	The flight or fight response	Long term effects	Your experience
<b>The heart beats faster</b>	Blood flow speeds up also helping the rapid transportation of energy, oxygen and all nutrients to the heart, lungs and muscles. Wastes are carried away faster.	High blood pressure is a problem as it can lead to heart attack if there is a build up of cholesterol in your coronary arteries.	
<b>Blood pressure rises</b>	In case of an accident, the blood can clot quickly and stop bleeding, more oxygen can be carried, and the body is better able to fight infections.		
<b>Blood clotting increases, the blood thickens</b>	Limbs become empowered for movement. The blood is diverted to the limbs so that they have preferential supplies of energy and oxygen.	Strokes, heart attacks  (drink extra water - 8 glasses a day - to keep blood thin)	
<b>Blood flow is increased to the limbs</b>	Faster supplies of oxygen into the system to replace the used carbon dioxide.		
<b>Breathing rate increases and becomes shallow and panting</b>		Hyper ventilation.  If a smoker who lights up under stress, damage is much amplified.	

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<i>The effects of stress</i>	<i>The flight or fight response</i>	<i>Long term effects</i>	<b>Your experience</b>
<b>Production of sex hormones diminishes.</b>	Preventing the creation of more 'mouths to feed' when times were bad (drought, famine etc).	The sex drive suffers, leading to impotence, premature ejaculation and lack of orgasm in women.	
<b>The digestive system shuts down.  The mouth becomes dry and the bowels may 'turn to water'!</b>	The blood supply can be better used for the muscles and heart and lungs. The 'secretions' are 'dried up' so that this fluid can be used elsewhere. The rectum and bladder may 'jettison' their load before battle.	Indigestion, ultimately stomach ulcers as there is insufficient 'lining mucous' and the stomachs acid begins to dissolve the stomach wall ('eating your heart out?'). Ulcerative colitis.	
<b>Energy reserves are released into the blood as 'sugar' and extra insulin in order to metabolise ('burn up') the sugar.</b>	Instant, short term energy and the means to use it.	The aggravation or instigation of diabetes.  Hyperglycaemia (the need to 'fix' on sugar, though it continues to work the pancreas too hard in producing insulin)	
<b>Blood cholesterol increases.</b>	Longer term energy, for when the sugar runs out.	Cholesterol can become deposited on the artery walls, like a silted up river, causing hardening of the arteries or even a fatal heart attack.  (Heart by-pass surgery if you're lucky).	

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The effects of stress	The flight or fight response	Long term effects	Your experience
<b>Mental performance is improved.</b>	Problem solving is enhanced	High error rate after excessive stresses	
<b>Pupils of the eyes dilate.</b>	Night and peripheral vision is improved.	Aggravation of eye conditions	
<b>Ears.</b>	Hearing becomes more acute.		
<b>The skin becomes cold and clammy and 'hair stands on end'.</b>	Blood rushes away from skin to avoid too much blood loss if lacerated. The hair used to act as an extra sensor (whiskers) and to increase perceived size (as with cats and dogs).		

## **The Effects of Stress**

### **Stress stage 1: 'high drive'**

Hormones can help us to suddenly feel we can really win!

It is like a shot of energy that can come out of the blue. Everything speeds up, we are quicker with everything, laughing, talking even walking.

We think and act much quicker.

#### **How to tell if you are at stage 1:**

- A 'buzz' or 'high' feeling.
- Laughing at things 'too much'.
- Everything seems exaggerated.
- Not eating, but 'grabbing' a sandwich for lunch as you rush off, or a cup of coffee for breakfast.

#### **For what social and working situations could this be helpful to you?**

#### **How might stress be beneficial to you in your current circumstances?**

Relate this to the "buzz" you get from "High Drive".



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### Stress stage 2: 'constant red alert'

If you do not allow yourself to 'unwind' from the Stage 1 response you will soon find yourself moving into Stage 2.

This is where you are not putting in enough and taking out too much.

In other words, the hormonal levels never really settle down and allow you to come off of 'Red Alert'.

**How do you 'feel' about stress?**

**Identify upon the scale below:**

<p><b>I am very worried about stress</b></p>	<p><b>I am completely unconcerned about stress</b></p>
------------------------------------------------------	----------------------------------------------------------------

**Can you recognise this as a symptom of the stage of stress?**

Do you feel stressed about stress? Worrying about the symptoms can cause even greater stress, hence an understanding of what happens in the body can reduce the worry.

**What could you do to alter your perception of stress? Would this help you to decrease your level of stress?**

By relating your symptoms to the fight or flight response you may feel less concerned, e.g. Heart palpitations—not necessarily a sign of heart problems, just of adrenalin in the system.

**How to tell if you are at Stage 2:**

- \* You are probably beginning to feel a little out of control, 'under pressure'.
- \* You feel you can't cope, you are tense and feel 'driven'.
- \* Thoughts go round your mind like a hamster in a wheel, or a record stuck in a groove.

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- \* You can't sleep easily at night.
- \* You feel like eating rich, spicy or fatty food, sweets and you drink more alcohol.
- \* You begin to suffer from dyspepsia, heartburn, gastritis, maybe even stomach ulcers.
- \* Digestion is slowed down.
- \* Tension levels are raised causing headaches, migraines and back aches. Menstruation may become more painful.
- \* Sex drive may begin to wane, and 'nit picking' can begin to take over from loving gestures.

### **Assess your risk from stage 2 stress:**

- \* Have your sleep patterns altered?
- \* Are you prone to bouts of irritation?
- \* Are you 'flaring up' at fairly small things?
- \* Are other people making you feel intolerant (shouting at your six year old for not tying his shoe laces, shouting at other drivers)?
- \* Are you over reacting to any little thing - tears, fury etc.

### **Can you recognise any other symptoms that may be caused by Constant Red Alert?**

### **How might stress be damaging to you in your current circumstances?**

Is it constant? Look for where you might be at risk of creating physical illness from stress. Also consider the dangers of mental illness, often overlooked in favour of physical conditions.

### **How does stress affect your lifestyle, with particular reference to health and habits such as eating and sleeping etc.?**

Do you drink alcohol to help you to sleep? Do you eat lots of sweets, fatty foods, do you feel too tired to exercise? etc

## **Stress and mental illness**

## **The Effects of Stress**

**Stress is a mental illness. People suffering from stage 2 stress are suffering from a form of mental illness, from which the physical ailments are only symptoms. This is often overlooked**

Stress is also the cause of other mental illness, such as depression, nervous breakdown.

There are many people suffering from mental illness as a result of their work, and it is vital, therefore to recognise the danger signs and to deal with these with the same urgency as we deal with the physical symptoms of the mental illness.

Mental illness is not something to ignore, nor is it shameful. However, it is something we should deal with before it becomes destructive.

Of all the illness you could "catch" from work, peers, family and friends "stress" might be the most pernicious.

**How do you feel about mental illness? What emotional response does it create in you? For example, does it make you angry to consider you may suffer from it?**

This reaction (anger) is common, but we must get over it, and deal with the problem, or the problem will not be cured. Ultimately, a shift in mental patterns is essential, if we are to cure ourselves of consistently high and dangerous levels of stress.

**Consider your responses when under stress and relate these to mental conditions**

For example: Anger - having a short fuse, lack of concentration or being too loud or talkative.

Getting angry is not a mental illness as such, but getting uncontrollably angry is a problem. Losing control is frequently described by people suffering from stress as their biggest fear.

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### Self appraisal

Do you suffer from Constant Red Alert? How do you know, how do recognise this?

Can you recognise High Drive? How do you know, how do recognise this?

### Summary

Although stress can be helpful, if it is on-going it can become a problem.

High Drive is the first stage of stress that can be helpful to us.

Constant Red Alert is the second stage of stress that indicates that we are not easily coming out of what should be a short term stressful state. This can become a problem over the longer term.

Stress can become a mental illness that has physical side effects or symptoms.