

## Stress

**Stress quickens your heart rate and breathing and increases your blood pressure. In the short term this is quite normal and not harmful.**



**Adrenaline and Cortisol are stress hormones secreted from the adrenal glands, which sit above the kidneys.**

**Though both chemicals are *stress hormones*, adrenaline and cortisol play different biochemical roles.**

**Adrenaline** primarily binds to receptors on the heart and heart vessels. This increases heart rate, muscle contraction and respiration.

**Cortisol** binds to receptors on the fat cells, liver and pancreas, which increases the glucose levels available for muscle use.

**It also temporarily inhibits other systems of the body, including digestion, growth, reproduction and the immune system.**

**Anxiety is very physical.**

Experiences of anxiety 'make us silly' because it inhibits problem solving, rational thinking and the ability to make informed decisions.

If you are constantly stressed, your adrenal glands over produce the hormone Cortisol.

Over exposure to this hormone can affect the function of your brain, immune system and other organs.

Many of the physical as well as psychological health problems people seek help for, are in fact the result of excessive stress.

The mind (brain) communicates with the body via the nervous system.

You have a *central nervous system* that is the brain and spinal cord and a *peripheral nervous system* that is nerve cells (neurons) that carry information to and fro from the central nervous system via chemical and electrical impulses.

The *autonomic nervous system* is the part of the nervous system responsible for control of the bodily functions not consciously directed, such as breathing, the heart beat and digestive processes.

**The *parasympathetic nervous system* relaxes the body and inhibits or slows many high energy functions (REST AND DIGEST)**

**The *sympathetic nervous system* prepares the body for intense physical activity - (FIGHT OR FLIGHT)**

**When you experience heightened anxiety stress you are running on adrenaline but this interferes with the healthy function of the autonomic nervous system and the natural balance between sympathetic and parasympathetic responses.**

## *The Vagus Nerve*

**The Vagus Nerve** (Latin for wandering) is far reaching, extending from the brainstem down into the stomach and intestines, innervating the heart and lungs, connecting the throat and facial muscles.

Nerve fibres throughout the stomach and intestines are referred to as the enteric brain, because 90% of those connect back up to the brain through the vagus nerve (ever heard the saying “gut feeling”)

Because we live in a world that is over-stimulating for the sympathetic nervous system, ways to help engage the parasympathetic nervous system are useful.

Stimulation of the vagus nerve has an inhibitory influence upon the systemic nervous system activity.

**Therefore, practices that stimulate the vagus nerve have a calming effect on the body and mind.**

## Improving vagus nerve tone

### **Washing face in cold water**

*(shocks the subconscious brain into thinking about what just happened. This breaks the fight/flight message link within the vagus nerve revealing a window of opportunity so you can take back control)*

### **Smiling**

*(facial muscles giving the opposite message to the subconscious brain - again confusing it allowing you to regain control)*

### **Humming**

*(throat stimulation - this is a sign of happiness and again confuses the subconscious brain as this is the opposite message to the one it is currently working on. If you are happy it questions why it is trying to raise your adrenaline and cortisol levels so you can escape the sabre-toothed tiger)*

### **Encourage the production of saliva in the mouth**

*(When in fight or flight mode you find your mouth goes dry. By encouraging the production of saliva this again confuses the subconscious because if the mouth is wet you are not in danger and there is no need for the current fight/flight default programme to continue running)*

## **Gut health**

**(The hypothalamic pituitary adrenal (HPA) stress response, which regulates mood and emotion, has frequently been shown to be attenuated by certain probiotics, decreasing corticosteroid levels)**

## **Peripheral vision technique**

**(Focus on a spot directly in front of you.)**

**Then look in your peripheral vision to the left.**

**Focus on the spot,**

**Then look in your peripheral vision to the right.**

**Focus on the spot,**

**Look to the left,**

**At the spot,**

**Look to the right,**

**At the spot,**

**To the left,**

**Spot,**

**To the right,**

**Spot.)**

**This is a technique used for processing memories and is a powerful tool to confuse the subconscious brain. It is not sure where you intend to go, what you're planning to do and so it pauses in its fight or flight state to reassess the situation. Another great moment to regain control.**

## **Breathing Technique**

**Sit up in your seat relaxed but alert.  
Bring your hands to your shoulders.  
Inhale and expand across the front of your chest.  
Open your elbows wide, and lift your chin.**

**Hold for two breaths.**

**Exhale as you contract your elbows in front of  
your chest and tuck your chin.**

**Repeat this 4-5 times ending with an inhale so the  
last message your subconscious brain receives  
from you is that you are confident.)**

**This technique sends mixed messages to the  
subconscious. You are confident, you are shy, you  
are confident, you are shy etc. Your subconscious  
doesn't know the difference between the truth and  
a lie. This is wonderful news as it means you can  
tell it how you want to feel rather than it telling  
you how you feel. You take control.**