



STRESS & YOUR HEALTH

By Craig Osborne, Chiropractor © 2010

When you go to a music concert, or watch the footy finals live, or have a picnic with loved ones, do you enjoy it for the event, or because you value the experience and time spent with people close to you?

If you fall ill, or simply feel 'not at your best', do you think of what it means to be well again? Do you place value on the results of taking action to improve your health and well being? This doesn't just mean 'I want to be healthy', but the personal value you place in being healthy, or pain free. This might mean being able to play a musical instrument whenever you want, or to kick a ball with friends or family, or that being healthy means you can earn more money so you can take more holidays.

It's identifying the personal value of something that forms the basis for the information to follow. Without value, we set in motion a long string of events that we often describe as



living the 'Rat Race'. The goal here is to illustrate how having a lifestyle with the wrong mix of activity and stimulation leads to pain, illness, & disease. The essence of this is to show how chiropractic plays an essential role in stimulating your body to function better.

ARE YOU STRESSED?

I think most people would say yes, and even if you're not sure, it's the root cause of many ailments that you may suffer during life. Through this

article I need to refer to two terms related to being stressed.

The first is "**Sympathetics**" – a part of the nervous system that is over active when we're emotionally stressed. It's the fight or flight syndrome. The opposite is the "**Parasympathetics**" – activity here is linked to rest and digestion & healing. When the parasympathetics are more active we enjoy life, we savour new experiences and are healthy. Sympathetics cause illness and age us faster.



Have you noticed that stressed people almost always look older? More lines on the face, tired eyes, a lack of energy. Look how fast our politicians age when in office.

IT'S ALL ABOUT THE BRAIN

I've tried hard to keep this bit simple. If you have a quick look at the picture below, you'll notice there are 4 main parts to the brain. Let's keep their function & responsibilities quick:

Frontal lobe – values, self worth, purpose. When active it dampens activity of the...

Temporal lobe – sound processing, speech and is involved in the formation of memories,

including spatial navigation = balance & coordination, and expressive behavior. Remember this bit as when it races out of control in children, we call it ADHD.

Parietal lobe – gets lots of sensory input from the body and occipital lobe to help the brain determine body position in space. Activity here also stimulates the frontal lobe

Occipital lobe – vision

So how can they be connected? Lets assume you are doing something you really don't enjoy i.e. it has no value to you. This will limit how much stimulation of the frontal lobe is occurring, and as a result it will not have any dampening effect on the temporal lobe.

If the frontal lobe is bored then it no longer dampens the temporal lobe and this allows the sympathetics side of things to take over. Sympathetics in simple terms is the feeling you have when you are stressed or frightened.

If you are not moving much, or in poor posture, then the parietal lobe is also not being stimulated much. If this lobe is relatively inactive then it won't stimulate the frontal lobe, and again leading to the temporal lobe taking off.

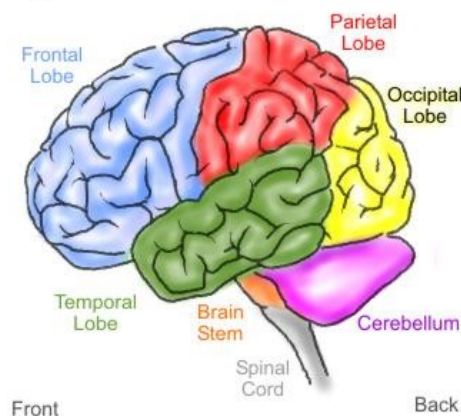
Put way too simply, if your body doesn't move well, and you don't value the things you do, this contributes to an increased sympathetic activity in your body and you are now stressed. NOT GOOD!

SYMPTOMS OF STRESS

The follow list is either common findings in stressed people, or they increase stress in the body. How many apply to you?

- A loss of normal neck curvature – all but about 5 of clients I have x-rayed fits this category

Regions of the Human Brain



- Don't eat a good breakfast
- Don't get adequate exercise
- Don't get adequate rest
- Your vision is getting worse
- You get dry eyes and these cause headaches (eye strain)
- Your sense of smell isn't what it used to be
- Food seems to taste bland so you need spices and sauces to make it interesting
- Your posture is slack and you carry your head forward with rounded shoulders
- Resting heart rate should be around 70 beats per minute – what's yours?
- Resting breathing rate should be about 12 breaths per minute – what's yours?
- Your digestion isn't great – perhaps more gas or infrequent bowel movements
- Your sexual function is reduced – females may be dry, men may have erectile problems

SO WHY CARE ABOUT STRESS?

Stress increases the activity of the temporal lobe of the brain, and as we've mentioned this increases the sympathetic activity in the body – the fight or flight reaction. Did you realise that when in a constant state like this we become fatigued (chronic fatigue syndrome). When this happens, the nerves responsible for pain become more sensitive and often lead to chronic pain (also known as fibromyalgia).



The production of hormones also gets thrown out of balance and we can become more emotional, perhaps even depressed. Bowel function alters and perhaps we get irritable bowel syndrome (IBS), or perhaps we develop gastric reflux problems, not to mention high blood pressure.

Most, if not all of these conditions are rampant in our society and are dealt with as symptomatic conditions, yet an underlying causative factor is the imbalance in the nervous system, and the lack of the right kind of stimulation for the brain.

TV FOR TODDLERS

The American Pediatric society has made a ruling that *children under the age of 2 should not be exposed to television* (period). Toddlers require stimulation of the parietal lobe so that the frontal lobe develops properly. So what you might ask?



We are born with under-developed frontal lobes. If they aren't properly stimulated within the first 2 years of life then it's fact that there will be impaired reading skills, learning difficulties, & delayed language acquisition, as well as subsequent behavioural problems.

A child is more likely to develop normally when exposed to a range of physical and mental games and toys, than hours of mind numbing so-called children's television.

ADD & ADHD

Anyone for Ritalin? Attention deficit disorder (ADD) is a hypofunctioning brain, (Hypo = under, Hyper = over) specifically the frontal lobe.



Attention deficit and hyperactivity (ADHD) is where the frontal is under-developed and the temporal lobe is running rampant (the hyperactivity).

Treatment is typically drugs to change the behaviour, yet we've just discussed that if the body is stimulated by activity, movement and exercises, the parietal lobe will be stimulated, this will in turn improve development of the frontal lobe, and this will dampen the temporal lobe and help control behaviour.

Many children with ADD and ADHD benefit immensely from regular chiropractic care due to this body / brain connection.

WHY PROPER NECK CURVE IS SO IMPORTANT

We're born without normal neck curvature, but a child should start to

hold their head up by about 3 months and this starts the formation of a lordotic curve. In addition we're born cross eyed and it's under the influence of the newly formed lordosis that the eyes will start to align & focus better. A reduced neck curve has been linked to learning difficulties and reduced coordination.



As adults a reduced curvature is typically linked to a stressful 'desk' posture, where many of the muscles around the front of the neck are tight and short, and the opposing extensor muscles are relatively inactive.

Incorrect neck curvature has been linked to

- less tolerance
- less compliance with instructions
- relationship stress
- parental stress
- altering our hierarchy of values

A FORWARD HEAD CAUSES EARLY DEATH

A medical researcher in the US also boldly stated that she could predict the demise of a person based on how bad their forward head posture was. Essentially the posture contributes to heart and lung dysfunction that then lead to an early death.

From a chiropractic perspective, the upper 4 thoracic vertebra provide neurological input to the heart and lungs and are also compromised when posture is poor.

WHAT ABOUT POSTURE?

What are your hamstrings like? Tight? Short? Is your posture a concern – rounded shoulders, head



dropping forward? Put yourself in this slumped position and try and take a deep breath. Difficult isn't it – the chest tends to rise vertically rather than expand outwards. Now sit upright, shoulders back and take another big breath. Notice the difference?

Our stressed (often seated) lifestyles tend to mean that the muscles that flex us forward (poor posture) are shortened and tight, and the opposing extensor muscles are stretched and weak. So typically the back muscles are weak and don't support our spines well, the quads are weak, the muscles at the front of the neck are short and this drags the head forward. This pattern can be followed all around the body and with this physical example you can see how your



physical appearance, your state of mind and health are intimately linked.

PUTTING THIS ALL TOGETHER

Chiropractic care has been shown to stimulate the nerve endings that cause increased activity in the parietal lobe of the brain. If you are stressed, or perhaps suffering symptoms related to a stressful lifestyle, then it's entirely probable that the nerve / brain stimulation associated with chiropractic care can assist to help balance out the activity of your nervous system – and take you back into a more 'parasympathetic' level of functioning.



This is not as far fetched as it sounds. In the clinic I use a questionnaire to ask about changes in body function under chiropractic care, and a small selection of responses are;

- Better digestion
- Clearer vision
- Increased energy levels
- Restored sexual activity
- Regular and less painful menstruation
- Mentally alert
- Toilet habits more regular
- Stamina improvements
- Increased strength & coordination
- Reduced reliance on

medication

These are all improvements that occur due to a more balanced parasympathetic nerve activity, and are all body functions that occur automatically. The human body functions better under chiropractic care.

THE TAKE HOME MESSAGE

Your health is more than just the absence of disease. In fact your state of mind plays an essential role in you maintaining excellent health. Chiropractic has the potential to be a vital component in achieving your ongoing health goals. Typically people seek chiropractic care for pain relief, yet most chiropractors will admit that they don't actually treat anything, except you as a whole via your nervous system.



Ongoing research further supports the effect that chiropractic has on stimulating your nervous system in a way that positively aids in balancing out the activity levels of the sympathetic and parasympathetic systems. As a result, your body is able to deal with illness, dysfunction and disease. Most importantly, to get more out of chiropractic (or for that matter anything that you do in life) you need to recognize the value of the care you are receiving.

