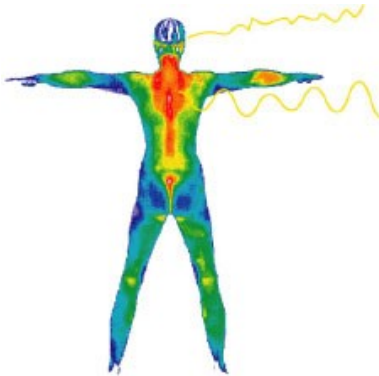


Stress, Our Body and Food

~ The irony is this: Our bodies react to stress in exactly the same way whether or not we have a good reason for being stressed. The body doesn't care if we're right or wrong. Even in those times when we feel perfectly justified in getting angry - when we tell ourselves it's the healthy response - we pay for it just the same ~

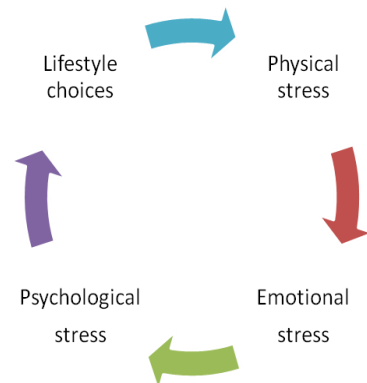
Doc Childre and Howard Martin

Stress! A word that gets bantered around easily and frequently! It is the body's natural response



that instantly kicks in when the mind or the body senses a potential danger to its self. With this in mind, literally, the mind can play great games with its self and remember or imagine possible scenarios which could, kind of, maybe, somehow cause us harm. Emotional, psychological or physical dangers are all the same to the mind and so it instructs the body to prepare it's to defend its self. Doctors know stress can kill, and we know it can make us sick, and often, because our body's ability to adapt, we get used to living with it. We lose our ability to feel our stress levels and unknowingly cause self harm.

We, as humans create a mountain of physical stressful situations on ourselves. For some people their choices in food, drinks, medications, drugs including caffeine, alcohol and smoking etc; unsupportive sleep habits; the amount of exercise too little or too much; not to mention negative emotions and worry are just some of the things we do to ourselves. Each of these changes our body's chemistry, and increases our physical stress, usually leading to psychological and emotional stress.



Perceived threats arise from emotional and psychological stressors

It isn't that long ago, maybe 200 years, that the majority of people were still living off the land, and exposed to many dangers requiring physical strength, agility and speed. Now, most of our threats come from our choices, our perception of our life and our fears of 'what ifs?' These fears, if we choose to let them have the ability to be with us 24/7; and, they can quickly intensify at any given moment. The triggers are many, including trauma, imagination, memory and believe it or food chemistry (more on this latter). Long term, continuous stress is called *chronic stress*.

Steps to Change

Physical stress, when our body is damaged, hurt or at risk of being out of balance

The body is constantly checking itself to see its state of health - biofeedback. When the body senses its self as being out of balance - as tissue damage or cellular death; increased wastes or toxic products in the body, exposure to allergens, irritants etc, nutrient deficiency or overload it sees it as a stress.



Physical stress is also real when there is greater demand to manufacture the various chemicals, enzymes, structures, etc to keep the body well. This is increased when we

- eat too much food and drink we need to digest, absorb, assimilate and detox
- foods and chemicals that are not supportive for our body must be digested, and detoxed for removal from the body
- Need to repair and replace damaged/dead cells this naturally happens with old cells, but if we kill them – cut ourselves, get sick, increased inflammation, the rate of damage and death increases.
- Have hormones that are out of balance and stresses our body in its attempt to keep things going in very difficult situations. *Imaging your boss is a bully and the team just isn't working together, now multiply it because the various external authorities – other departments, head office, etc are demanding you keep KPIs and still be sane. Not likely going to happen, is it?*

In real terms, stress creates a chemical flood wash that moves through the body in *response* to a *real or perceived threat*. Our body does not know if it is only in our head – memory or perception of a situation, a physical attack on our body/person with an object or words. The chemical hormone adrenaline released is very powerful, and only a small amount is needed for the body to be stressed “fight or flight”. Initially, stress feels like anxiety, mixed feeling, often in the tummy and foggy in the brain. This is because the body’s response to adrenaline affects these two systems. The 7 signs of stress include:

1. Blood moves from the gastric system to the muscles in the arms & legs in case you need to defend yourself
2. An upset tummy – may lead to more frequent toilet stops
3. Increases blood sugar levels – to provide energy for rapid movement and alertness.
4. Increased heart rate & BP – “beating a thousand times a minute”
5. Increased breathing – may lead to hyperventilation
6. Profuse sweating – can feel like a hot flush, and turn the skin bright red
7. Increased alertness/awareness of your surroundings

The down side of stress is:

- Blood supply moves away from important organs – intestines and kidneys. The intestines digest (breakdown) foods into **Nutrients**, absorb the nutrients and removes harmful wastes we consume and make. With less blood to the intestines, digestion slows down, motility or movement of food and

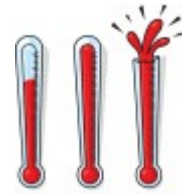
Steps to Change

wastes through the gut decreases increasing contact time of wastes in the body; the cells struggle to function and stay healthy increasing the risk of physical changes and tummy upsets. In summary,

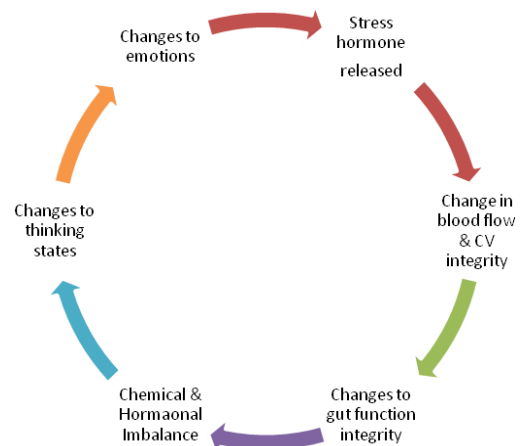
- Food may not be digested properly > **Nutrients** may not be released and nutrient **deficiency** can occur.
- Irritation and increased chemicals, pathogens and irritants in the faecal matter increases the risk of intestinal weakening, damage and toxicity.
- Microbiome changes in the gut further perpetuates chemical and physical changes in the bowel. Some microbes have the ability to influence our food and drink choices, often for sweets, alcohol, and fatty foods which supports their colonies, but not ours.

This combination can lead to food sensitivities, IBS, or irritable bowel syndrome, weight gain, bowel cancer, non-alcoholic fatty liver just to name a few.

- Changes in heart rate and increased BP are serious health concerns. In 2013, 1/6th of the Australian population was diagnosed having cardiovascular disease and in 2011/12, 32% of adults diagnosed with Blood pressure. For men, it can increase the chance of impotence. (ABS, 2006) Stress speeds heart rate; increases blood pressure by narrowing blood vessels and keeping blood in the larger muscles; and sends more blood to the brain. These changes combined with other risk factors increases the risk of a heart attack, stroke and other vascular **Incidents**. Long term, high BP and other vessel constriction increases damage in vessel linings resulting in arthrosclerosis creating another spiral to ill health.



- Increased energy needs to feed large muscles tell our body fat, and muscle to be converted into glucose and triglycerides (trigs). Stressful situations therefore increase Blood Glucose Levels and trigs potentially leading to a diagnosis of pre-diabetes, diabetes, or metabolic syndrome; increased risk of heart disease, increased tummy fat, increased BP, changed hormones, and for women, PCOS. We tend to crave carbs when stressed, which compounds things even more.
- Increased alertness occurs in both the brain & nervous system, but every single cell. So when the body is responding to a situation, the entire body is hypersensitive to the emotion/feeling and chemicals being pushed around the body at that time. This creates a powerful autopilot response in future situations which may be difficult to control without the appropriate intervention. We also run automatic response programs, overreact to what people say and do, often fuelling the situation even more. For many, ruminate on the event/s, micro analyse the situation from a perception, and find it challenging to see it from a third person or the other person's view point. The constant 'reliving' of the event keeps the body in perceived stressful attack in which it must defend its self, perpetuating the stress chemical response.



Steps to Change

- Ongoing or chronic stress has a major impact on the body. It demands more nutrients, which we often will not naturally eat, we may not be able to remove and absorb these nutrients anyway. Nutrient deficiency, altered body states, increased damage and repair works increases even more nutrients and another spiral is created. If this isn't reversed, then chronic illnesses such as heart disease, diabetes, inflammation diseases, immune dysfunction, stomach ulcers, some cancers, mental health issues, adrenal fatigue, are a few.

As you see, there are serious changes in the body in response to a stressful situation, whether it is a physical threat such as a falling over, or eating and drinking nutrient poor products. To the body, the stress is the same – a threat to the wellbeing of the body.

Aches & pain, reactions to foods, drink or smells, regularly getting sick, headaches, upset tummy, skin reactions, etc. are common symptoms. The body needs help and there are a number of different things that can cause these general upsets. In the early stages of stress and early adaptation it may be difficult to diagnose something concrete as being the cause. A thorough, whole body and wellbeing assessment is invaluable. Talking with your wellness practitioner one who considers the body's systems, food/diet, medications, lifestyle and emotions is an important investment in time and money.

How then, do we support our body during times of stress?

Again, this is something which is readily discussed in the open media, yet, it can be at times difficult to do, or you might miss the mark entirely. The first treatment strategy is to take stock at where you are. It is ok, that you are where you are, because it is the beginning of change when you look at it. You have done everything to date because you did. Judgement slows progress, and for some it is fatal, so accept that there have been so many things contributing to your current situation, *call ignorance*

For the past 33 years, I have looked in the mirror every morning and asked myself: 'If today were the last day of my life, would I want to do what I am about to do today?' And whenever the answer has been 'No' for too many days in a row, I know I need to change something.

[Steve Jobs](#)

and then choose to become enlightened. Awareness is the first step to any change, then taking the step of courage to make a difference. It is more than acceptable to get and take help, again, what help do you need to bring you back to you?

The following is a checklist ladder to help you think about what you might be able to do to support yourself, and that includes getting help.

Take Stock

➤ Take a few moments to sit and consider your life at the moment. Does it give you a level of contentment, joy, happiness and peace? If not, jot down the areas that are not as they could be. Completing the wheel of life tool is a great place

to start

- Consider you cope with stress. Do you
 - eat more, or less food.

Steps to Change

- drink alcohol or other drugs
- self harm.
- zone out with shopping, sleeping, TV, movies, exercise excessively, or just plain get angry.

Whatever your current ‘coping mechanism’ is it really working for you? Could you, even if you don’t know how to at this point, respond differently to situations, emotions, people, events, memories etc.?

Identify the triggers:

➤ Which of these things, external to you push your buttons –

○ Family	1	10
○ friends,	1	10
○ job,	1	10
○ relationships,	1	10
○ money,	1	10
○ housing,	1	10
○ health,	1	10
○ food choices,	1	10
○ drinking or drug taking,	1	10
○ medication	1	10
○ yourself.	1	10

5

Out of 0 – 10, with 10 being the most stressful, mark each of the things with a number. The higher the number, the more I encourage you to get help and advice of how to change these things around. These areas will take time to change, and they will require you doing things different in your life to bring these back on track.



➤ What emotions are frequently felt, and where in the body do you feel them? Again, sit as still as you can and ponder the questions. Feel your body, by running your mind’s eye over it. Listen to the whisper where you ‘hear’, ‘feel’ or ‘sense’ an emotion is there, or the body part is ‘talking to you’. You are not going crazy, quite the opposite. The body knows all things, and it is our choice to ignore it that gets us into trouble to begin with.

Emotions and feelings can be elusive so don’t panic if you don’t think you get any messages. You are not failing, or doing it wrong, it takes patience and self trust to hear and believe what is being shared with you. Imagine a young child hiding behind a doorway because for so long it had been told not to tell you anything, or your just didn’t listen. Do you

Steps to Change

honestly think that child would quickly come running and telling you everything if you ignored it for years, I don't think so? A trusting relationship needs to be rebuilt between you now, and the child you and the first steps are to show the child you are practicing your patience and listening skills. It is invaluable to seek professional help to support you to release and heal these parts.

Develop a course of action

- Consider what you can do to make a difference to you. I would still suggest talking to a counsellor to help put your situation and life into perspective, especially if you have been in a high stressed state for some time. We lose perspective of what is a healthy level of stress and not while 'getting on with it'. Talk with people who are in a similar situation, but are making progress – support groups with a trained facilitator is invaluable.
- Seek guidance as to what foods are best for you, at this point in time. If foods, chemicals, IBS, bloating, frequent gastro or constipation, headaches, tight muscles and cramps are your triggers and symptoms then help from a dietitian, nutritionist or naturopath trained in food intolerance and gut health is really important. Remember, if your intestines aren't working well you are not breaking down the food to release the nutrients, you are most likely not even getting enough of the nutrients into your body to use them. Stress increases the need for nutrients – basic building blocks, so it is essential to eat healthy foods in ways the body can absorb easily.
- Basic foods: Foods and drinks your body accepts and doesn't react with. Water either fresh, spring, sparkling, still, herbal teas or diluted juices; 2 fruit, 5 vegie serves; lean meats, including fish, eggs, or vegetarian protein powder; grains with the husk on. Chicken soup, bone/beef stews, vegetable soups, fresh vegetable juices, soft boiled or poached eggs for a few examples.
 - Limit foods that take a lot of effort to digest – processed, packaged foods that have lots of numbers added to it.
 - If however, you react to the natural chemicals in foods then this needs to be tailored to your needs even more.
- A good quality probiotic, multi B vitamin complex, broad spectrum mineral supplement and specific nutrients for stress, and organ support if needing help. This level of intervention is best with an experienced health professional as the wrong combination can add to the problem.
 - Limit, or preferably avoid stimulates and irritants to the body – caffeine, colours, flavourings, preservatives, alcohol, super hot spices and anything that upsets your tummy, your nose, throat or skin. This is a sure sign that you are reacting to something, increasing your body's internal stress.
 - If you choose to not seek medical advice, a general probiotic *may* give some help, but may not be enough.
- Learn to nurture yourself and give yourself space to feel and heal. Gentle exercise, being in nature is one of the better ones. You have the benefit of fresh air, sights and smells that are very grounding, plus your body increases its ability to remove the wastes and deliver the

Steps to Change

nutrients to the cells. This means each cell functions better, heal and repair much faster. Movement also removes excess blood sugar and trigs which helps reduce the effects of these on the body if elevated. If you have an injury in your feet, legs or back; vascular disease or blood pressure, then it essential to get a Dr's clearance to start an exercise programme.

- Practice gratefulness for even the smallest of accomplishments and positive changes you make. Small steps frequently will get you there faster than no steps at all.
- Laugh, hard and often, especially with children, animals and yourself. Get funny movies out, watch the trees grow, the waves role and the wind blow a plastic bag around in a whimsical way.
- Mentally divorce yourself from people who are not supportive of you wellbeing. This is the hardest one, I think. Hard to know who is the one not supporting when we feeling overwhelmed or in a committed relationship or responsibility. Get help to gain clarity, and create strategies of self support, work within the needs of the situation and if needed take physical action to minimise time with that person or people.

Key Points

- Our body adjusts to stress and over time we don't realise what we are stressing ourselves. Frog in hot water syndrome!
- We make ourselves from the food and drinks we consume. This includes all cells, communication systems, muscle, bone, hair skin and nails and everything in between. If we don't consume nutrients in ways our body accepts, we do more harm than good adding to the stress. Get o know your body, what food items your body will accept and remove anything it reacts to. It may not be permanent removal, but for now it is important.
- Short term stress is to protect the body; long term – chronic stress damages the health of the tummy, leading to sub-clinical nutritional deficiencies; immune, digestive and nervous system. Changes to these systems can result in diseases such as Heart Disease, Diabetes, and Osteoporosis, depression, anxiety, weakened immune system, increased aches and pains etc, which increases the body's internal stress load.
- Our minds and body have an amazing capacity to store emotions/ feelings, link them to memory and in our DNA. When a similar situation reoccurs, even if you respond differently to it, the memory and associated emotions/feelings can be triggered, and releasing the message to the stress response to be activated, and the coded DNA action.

Book into see our holistic dietitian www.stepstochange.com.au/consults.

Glossary

Out of balance: The correct term for this is out of homeostasis which means the body is not operating within its optimal range. Both too much, and not enough of something puts the body out of homeostasis and the body is constantly working to recreate homeostasis. Similar to a sea saw, push to hard on either side and you can get hurt by either hitting hard on the ground, or bouncing into the

Steps to Change

air. Each nutrient, chemical, hormone, movement has its own homeostatic value. When one thing is out of homeostasis, it affects the surrounding parts of the body having a spiralling effect on the body.

Blood: fluid that moves around the body with the help of the heart. It contains red and white blood cells; several building blocks – nutrients including sugar, proteins, fats, vitamins, minerals, oxygen essential for maintaining health; communication chemicals to co-ordinate body function & metabolic wastes and other toxins that the body doesn't need.

Nutrients: The building blocks of life – amino acids, sugars, fatty acids, nucleotides, vitamins and minerals, fibre & water. Each of these when combined in set combinations (similar to a recipe) they make the various parts of our body. Without them, the cells may not work properly, and various essential functions may not occur. For example, without healthy fats, pain from arthritis can increase.

Nutrients are like bricks; you cannot make a brick wall without bricks!

Nutrient deficiency: when there is a short fall, or not enough of a particular nutrient to allow normal, healthy function of the body. Each nutrient has its own normal range to maximise health, just as each person have their own ideal range of nutrient needs to maintain their body. Various factors increase nutrients demand, and stress is one of them. When we become deficient, the body shows various signs such as fatigue, skin changes, tummy upsets, body odour, itching, aches and pains to name a few. Chronic deficiency can lead to osteoporosis, easy bruising, teeth decay, cold and flues, IBS and altered immune system

Blood Vessels: There are two types of blood vessels. The ones leaving the heart are arteries and carry oxygen and nutrients to the cells elsewhere in the body. Their walls are soft, with muscles to expand or tighten to help control blood flow to different parts of the body. They respond to various stimuli, including stress. The vessels returning wastes and blood back to the heart are veins. Veins are less responsive and have less muscle in their walls. To keep vessels healthy, we need regular intake of nutrients, in particular amino acids, minerals, vitamin C, essential fatty acids and antioxidants. Exercise to help 'practice' and stretch the vessels to keep them used to the response mechanisms of the body.

Vascular Incidents: Occur when there is damage to the blood vessel/s leading to reduced blood flow to tissue downstream from the site of damage. It can be the result of atherosclerosis – blockage; aneurysm – ballooning and bursting of the vessel wall; breaking of the wall – bleed. When it happens in the heart it is a heart attack, which can result in a weakened heart or death; in the brain it is called a stroke and can result in partial or full paralysis or death; and a bleed depending on how big can cause tissue ischemia or tissue death to the area that isn't getting the blood. Peripheral Vascular disease is blood vessel problems in the extremities – arms, hands, legs, feet and skin.

Hormones: Adrenaline, nor-adrenaline, nitric oxide, Serotonin, Dopamine, Glutamate, GABA, & histamine are some of the neurotransmitters (chemicals in the nervous system) released with stress. The amount and the timing of their release help control the amount and responsiveness of the body to the situation. Hormones adrenaline, nor-adrenaline, nitric oxide and glutamine also directly effect the immune system, often lowering it.

Steps to Change

Allergens: a substance either through food, drink, pollen, dust, & other animals carries proteins to the body which triggers the immune response. (Roitt, 1993) can trigger an allergic response, or the person can be sensitive to the chemicals present in the substance. This creates a physical stress on the body.