

RHRP NEWSLETTER



EMPOWER
TANZANIA



This photo was taken at Hedaru Primary School in early March before COVID-19 became wide-spread and well-known.

COVID-19 UPDATE

COVID-19 started at the end of last year and has since reached nearly every area in the world, with many deaths and other devastating consequences. Vaccines are now in production that can stop the virus from causing serious disease and help prevent its spread. Scientists and healthcare providers around the world are working on how to produce and distribute the vaccine to everyone on the planet. Until we all are vaccinated, we need to continue to protect ourselves from this deadly virus by continuing to wash our hands frequently, stay 2 meters apart from each other, and wear a mask whenever we are outside of our own home. Also, it is important to try to stay outside as much as possible where the virus is diluted by fresh air and less likely to spread from one person to another.

This global effort to control the virus shows us how connected all the people in the world are to each other even though distances between us are great. So while we begin to recover from the effects of coronavirus, we now should consider how resilient we actually are as human beings. A 'resilient' person is someone who is able to withstand or recover quickly from difficult conditions. Thankfully, resilience is something that can be learned and developed. We will look a little closer at stress and how we can deal with this stress in better ways.

WHAT IS STRESS?

When faced with stress, our body changes to make us faster, stronger and more alert. This is to help us overcome short-term problems, like running away from a lion. This response is started by a part of the brain called the amygdala. The amygdala is responsible for the instinctive and impulsive responses of our bodies. Whenever we experience stress, messages from the amygdala area are sent to other parts of the brain and chemicals are released in response to those messages from the amygdala. The chemicals released by other parts of the brain include adrenaline and cortisol, which are often called stress hormones.

These stress hormones cause changes in how our body operates, such as increasing our heart rate to push more blood to the muscles, increasing the amount of oxygen taken in with each breath, and releasing sugars from our body's long-term sugar storage areas to make the energy in sugar available for our muscles to work.

These brain and body functions give us the quick burst of muscle action and energy to quickly run away from danger, often without thinking about it. A sudden, uncontrolled scream of fear when you are frightened is an example of this function. Our heart races, our eyes open wide and we are ready to run. In English, we have a saying that a person may "jump out of their skin" when suddenly frightened. It is not true, of course, but shows the powerful effects of the amygdala part of the brain and the stress responses it initiates.

Stress causes another part of the brain, called the prefrontal cortex, to temporarily shut down. The prefrontal cortex is located at the front of the brain, just above our eyes, and serves as a control centre for the brain. It is responsible for our complex thought processes such as planning, decision-making, and problem solving. Our thoughts and personality are seated in the prefrontal cortex and this is the area of the brain in action when we plan activities and make complex decisions. When we encounter a threat like a lion, for example, the amygdala reacts with the stress response to get us out of danger, and the prefrontal cortex briefly shuts down to let the amygdala do its work of getting us out of immediate danger. After a few moments, when the prefrontal cortex perceives that the 'threat' has passed, like the lion goes the other way, the stress reaction decreases and the prefrontal cortex takes control again. Now we can analyse the situation using our prefrontal cortex decision-making and thinking abilities.

However, sometimes the body does not perceive the 'threat' as gone. This can be because perhaps the 'threat' hasn't really gone away, such as when we are worried about upcoming exams or there is financial or emotional stress in our home. In these situations, the stress reaction of the brain may continue or even increase over time.

When this stress response continues, it can have negative consequences on the body, such as high blood pressure, weight gain due to increased appetite, and mental health effects such as anxiety and depression.

HOW CAN SOMEONE 'SWITCH-OFF' THE STRESS RESPONSE?

Everyone responds to stress differently. Some people are very resilient and recover quickly from stressful events. Other people may dwell on stress and thereby increase the negative effects of stress on the body.

There are exercises and techniques that can be learned to reduce stress. Learning and starting these exercises when we are young can lead to beneficial behaviours to reduce stress throughout our lives.

Everyone can do things to help prevent the effects of stress on their bodies. One way to do this is to identify the stressful event or problem, such as taking an exam. The next step is to make a plan as to how to tackle the stressful event. Forming a plan such as a work timetable to help prepare you and address the challenge or doing practice exams to improve your skills can relieve your stress about the exam. Also, it helps to take breaks and do some relaxing things during this time to get your mind off of the stressful event and relieve the stress associated with it. Talking with friends or family members about your worries almost always helps too.

Another way to 'switch-off' the stress response of our body is to practice mindfulness or meditation. This does not have to take long and can be done every day.



Try the following technique:

Find a relatively quiet space where you feel safe. Sit or lie down and close your eyes. Take two deep breaths, then for the third breath, breathe in through your nose for a count of three. While breathing in, imagine your thoughts are forming clouds above your head. Then, breathe out through your mouth for a count of three. As you breathe out, imagine the cloud with the thought floating away. Continue to do this until you run out of thoughts, or for a set amount of time. Start with short periods of about five minutes, for example.

Doing simple exercises like this can reduce the stress chemicals in your body, and can improve your productivity, energy level, and emotional wellbeing.

FREQUENTLY ASKED QUESTIONS



Q: Can childhood trauma cause stress?

A: Yes. When a child experiences trauma, be it in the form of violence at home, sexual assault, or severe bullying, the experience can cause a range of long-term problems. Children rely on the adults in their lives to look after them, and if they feel unsafe, their ability to 'bounce back' and be resilient is significantly reduced. This is why it is important to teach children about people they can speak to safely and allow them a space to talk about anything that is bothering them. Counseling can help people to think about their trauma and find ways to deal with it.



Q: I don't feel stressed, should I try meditation anyway?

A: Everyone has their own coping strategies. It's important to be aware of techniques and to practice these even when we are coping with life well, so that when a stressful event happens, we know how to react and can implement coping strategies easily. Meditation can help people to identify problematic thoughts before they become particularly stressful.



Q: Where can I find more information about meditation or mindfulness?

A: There are many resources available online by searching 'mindfulness exercises'. A good place to start is [headspace.com](https://www.headspace.com). Here you will find more information and suggestions on how to start.



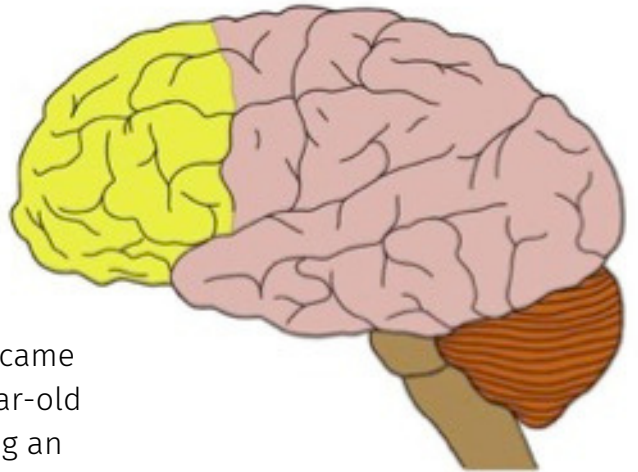
STRESS CAN HAVE PHYSICAL EFFECTS ON THE BODY SUCH AS HEADACHES, TENSE MUSCLES AND ANXIETY.



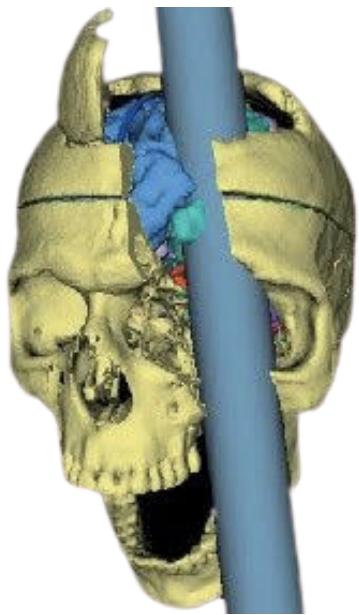


An interesting historical fact about the prefrontal cortex...

The prefrontal cortex is the part of the brain that is colored yellow in this diagram: →



The first clues as to the function of the **prefrontal cortex** came the result of a strange accident that happened to a 25-year-old railroad worker named Phineas Gage in 1848. He was using an iron rod to tamp explosive powder into a hole and the powder blew up, driving the iron rod through his skull and the front part of his brain, the prefrontal cortex. The rod was three feet long and over 3-centimetres in diameter. Not only did he survive, but he didn't lose consciousness. He was able to speak and he retained his memories. His personality did change, however.



Prior to the accident he was responsible and hard-working and afterward he became irritable, impulsive, and unpredictable, had sudden changes in mood, and was a troublemaker. These are all the types of behaviours that result from damage to the control centre of the brain and loss of its planning, decision making and thought process functions. This led to the realization that the prefrontal cortex that the metal rod damaged is what directs these functions. Subsequent research has supported these conclusions.



Nicholas Gage and the iron rod that went through his head.

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We want to know about you! We would like to include a spotlight section on someone new each month. Send us your stories of teaching the sessions and a little bit about you ... you could see yourself here next issue!

