




The impact of stress on the brain and health

This class will cover the science about how stress and traumatic experiences negatively impacts our brain function and our health by causing most of the common chronic diseases of today. It specifically covers the science that is showing us that stress turns off the prefrontal cortex. This is really relevant to us chiropractors.

This is also important since the prefrontal cortex is vital for one's intelligence, movement control, pain processing, mental health, immune system and inflammation. The prefrontal cortex makes you who you are, therefore stress changes you in a major way. This class also covers how to recognise chronic stress in your practice members.

BASIC SCIENCE LEVEL 2 - CLASS 5



LEARNING OUTCOMES

After taking this class the student will be able to:

1. Describe exactly what happens in the brain when a person experiences stress and how this shuts off the prefrontal cortex and heightens the limbic brain.
2. Summarise the changes known to occur after stress.
3. Discuss what a traumatic experience is and the known detrimental health effects that can occur.
4. Recognise chronic stress symptoms in patients.
5. Discuss the important role the prefrontal cortex plays in endocrine function, immune function, inflammation levels and emotional control and mental health.

LESSON CONTENT

Every lesson has a practice quiz. At the end of the lessons there is a final quiz and if you pass the final quiz, you will receive a certificate of completion.

1. Why is the prefrontal cortex so cool?

- Known conditions and disorders that are linked with prefrontal cortex dysfunction
- The consequences that occur in the prefrontal cortex following chronic stress
- Which part of the brain is the most susceptible to stress
- What the prefrontal cortex does in healthy non-stressful situations

2. What happens in your brain when you get stressed?

- What happens in the brain when you get stressed, or activate your fight and flight system
- What chronic stress is linked with
- What is known to occur in the brains of people with post traumatic stress disorder
- What conditions can develop due to prolonged chronic stress

3. The negative impact of traumatic experiences

- The definition of a traumatic experience and some examples
- What happens in the brain when you experience a traumatic experience
- How the brain changes after experiencing a traumatic experience

4. When are we most vulnerable to stress?

- Which periods of a person's life that we are most vulnerable to stress
- It also covers early symptoms of stress and symptoms that are common after a period of time of stress
- Symptoms that are common after chronic stress for a long period of time

5. The prefrontal cortex is vital for proper autonomic nervous system, endocrine and immune function

- How important the prefrontal cortex is for balancing the autonomic nervous system
- How it is vital for proper immune system and endocrine system function
- The importance of prefrontal cortex for executive functions and pain processing
- How important the prefrontal cortex is for controlling inflammatory levels of the body

SUBJECT TAGS

prefrontal cortex dysfunction, sleep disorders, high blood pressure, high breathing rate, high inflammation, emotional arousal, attention and focus problems, addictive behaviour, prefrontal cortex, mental health.

CREATED BY:



Dr. Heidi Haavik
Ph.D., BSc (Chiro)