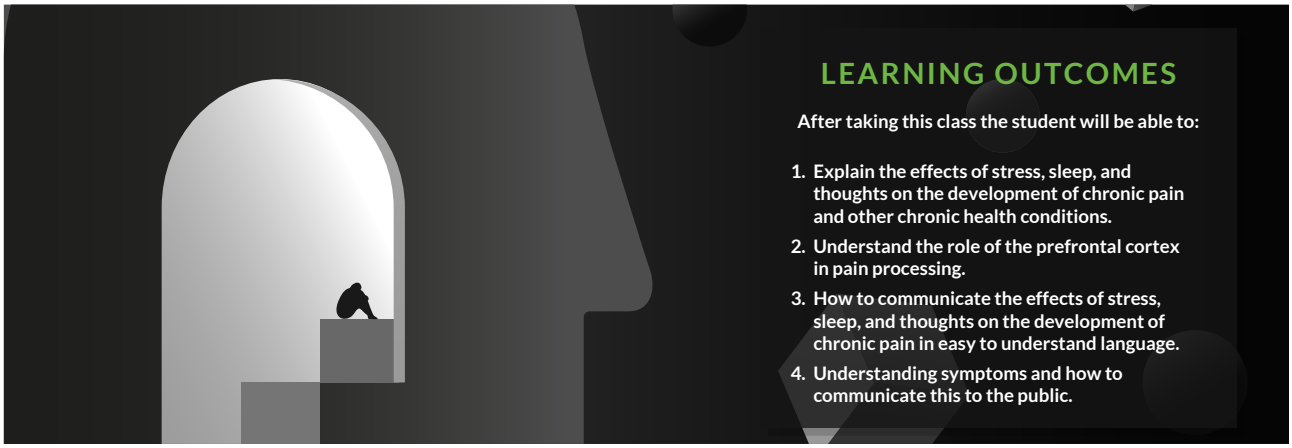
Connection between Stress, Pain, Sleep and Mental Health

This class will cover how physiological and psychological stress plays a major role in maladaptive neural processes involved in the development of chronic pain. It will discuss the relationships between chronic pain, mental health and sleep problems. This class covers the reserach showing how physical trauma influences the development of subluxations.

Finally this class covers how best to talk about symptoms with your practice members. This invovles explaining the latest understanding about how symptoms do not just develop out of thin air, but instead the problem builds up undetected over time like a thousand straws on a camels back, then appear 'suddenly' once your reach the thousandth straw.

BASIC SCIENCE LEVEL 2 - CLASS 9



LESSON CONTENT

Every lesson has a practice quiz. At 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. Pain related changes in the amygdala.

- Pain related changes in the amygdala neurochemistry.
- How the limbic system drives the chronicity of pain.
- How the amygdala and emotions can both increase and decrease pain.
- How the prefrontal cortex is atrophied in chronic pain patients and why.

2. The stress neuromatrix in the brain.

- How stress affects the brain and the prefrontal cortex.
- How stress amplifies pain and makes it a more ingrained problem in the brain.
- How the brain changes due to traumatic experiences so only minor 'non-threatening' stimuli, if they remind us of the previous trauma, can from then on activate the stress matrix in the brain.

3. How stress affects their brain and how chiropractic can help.

- How to explain to the public how stress affects their brain and how chiropractic can help.
- Why chronic pain and mental health problems go hand in hand.
- The relationship between sleep, inflammation and pain.
- The relationship between chronic pain and heart rate variability (HRV).

4. How adverse childhood experiences affect us as adults.

- The effects of stress varies at various time periods of our life.
- Research that has shown the ill effects of adverse childhood experiences (ACE studies).
- The impact of maternal stress on babies and the unborn child.
- The impact of traumatic experiences on future offspring.

5. The effects of physical trauma on the small deep paraspinal muscles.

- The effect of physical trauma on the small deep paraspinal muscles.
- The effects of physical trauma and acute pain on the brain.
- How stress alters proprioceptive signaling from the deep, small paraspinal muscles and how this creates the chiropractic subluxation.
- The role proprioceptive signaling plays in driving neural plastic changes in spinal pain

6. The 1000 straws on the camels back analogy.

- Symptoms dont just appear out of nowhere.
- Discuss literature about the development of pain and other symptoms (and the major role of stress and trauma).
- 1000 straws on the camels back analogy.
- How to best describe symptoms to patients and the public.

CREATED BY:

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