



# Pain is created in the brain

This class covers the scientific understanding about pain, and how the feeling of pain is always created in the brain, due to tissue damage. The latest science tells us that pain is created in the brain – to warn us about danger. However, this system can go wrong due to maladaptive neural plasticity and is the reason for the development of chronic pain.

Dr Haavik will cover how the feeling of pain can change and adapt over time. For a lot of chronic pain there may no longer be much tissue damage present at all – it can become a learnt problem within the brain itself. It is a very real problem, but the cause of the problem is likely to involve the brain itself to a larger degree than previously realised.

## BASIC SCIENCE LEVEL 2 - CLASS 7

### LEARNING OUTCOMES

After taking this class the student will be able to:

1. Explain the basic science neurophysiology of chronic pain.
2. Explain the the old structural pathology model of pain.
3. Explain the new contemporary neuroplasticity model of pain.
4. Explain chiropractic- relevant basic science neurophysiology research to patients and other health care providers in easy to understand language.

## 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. The low back pain burden.

- Pain is created in the brain and does not equal nociceptors firing.
- Pain location does not necessarily imply tissue pathology.
- Degree of pain does not necessarily imply degree of tissue pathology.

### 2. So many things can trigger feelings of pain.

- The multitude of what can activate feelings of pain.
- Why what you tell your patients matters.
- How important it is to educate about the neurophysiology of pain.
- Old school views on pain feelings vs new understanding.

### 3. The major difference between acute and chronic pain.

- Acute vs chronic pain.
- The widespread neural plastic changes that occur with chronic pain.
- Structural and functional changes that occur with chronic pain.
- Chronic pain and the inner body schema.

### 4. The old structural pathology model of pain is defunct.

- The old structural pathology model vs the new neuroplasticity model of pain.
- The old structural pathology model vs the new neuroplasticity model of spinal dysfunction and chiropractic care.
- Reiterating why what you tell your patients matters to their clinical outcomes in practice.

### 5. Why we explain the new understanding about pain to our patients.

- How to simplify the scientific information so that your patients understand this complex neurophysiology.
- The brain effects of adjusting subluxations on pain processing.
- How communicating the neurophysiology of chronic pain can reduce pain, improve function and reduce catastrophizing.
- Simple analogies that will help you to communicate this science.

### 6. Basic science vs clinical science and why chiropractors need to know.

- The three pillars of evidence based practice and how this relates to how we communicate chiropractic to the public and our patients.
- The difference between external vs internal marketing.
- The different marketing laws in different countries and how Haavik Research helps you to avoid advertising problems in your country.

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