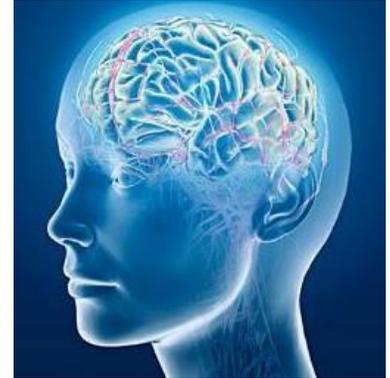


Intro to Neural Pain Pathways

What are neural pain pathways?

Pain is our brain's alarm mechanism for alerting us to danger. If our brain thinks something should hurt, then this alarm-danger mechanism tells certain groups of nerves to create the experience of pain. These groups of nerves are called *neural pain pathways* and they allow the signal to be sent from one area of the brain to another.

Neural pain pathways are created in our brain without our awareness. This can make them hard to control. The good news is, in the last ten years scientists have discovered the concept of "neuroplasticity". This is our understanding that these pathways can be turned on and off.



Why is this important for people with chronic pain?

For a person with chronic pain, his brain is often sensing normal sensations as dangerous, and is creating the experience of pain in response. Unfortunately, the pain itself can activate the alarm-danger mechanism, especially if the pain is severe. This can lead to a cycle of pain, leading to fear, leading to more pain. This is why chronic pain usually gets worse with time, and often begins to involve more and more areas of the body.

The idea that the neural pain pathways can be turned off is important to treating chronic pain. If you can convince your brain that there is no danger coming from the area you are feeling pain, it can turn off that alarm. For some people, just understanding that there is no actual tissue damage is enough to resolve their pain. Other people need some help learning techniques that will convince their brain there is no danger. This is what the *BCH Center for Mind Body Medicine* will help you with.



Resources

Videos to help you understand how we process pain	<ul style="list-style-type: none"> • A short video about how neural pain pathways can cause chronic pain: https://youtu.be/D36yy63CHq4 • A 22-minute talk about neural pain pathways by Dr. Howard Schubiner: www.unlearnyourpain.com and click on the video link • A very entertaining video about how our brain processes pain: https://www.youtube.com/watch?v=RYoGXv22G3k&t=288s • An ABC News 20/20 feature on how back pain is affected by emotions: https://www.youtube.com/watch?v=vsR4wydiIBI
Other resources	<ul style="list-style-type: none"> • The <i>Pain Psychology Center</i> free treatment program: http://www.tmswiki.org/forum/painrecovery/ • <i>Curable: A different Approach to Your Pain</i> website and app: https://getcurable.com/CU • <i>Unlearn Your Pain</i> web program & book: http://unlearnyourpain.com/ • A website created by Paul Hansma, a physicist who recovered from chronic shoulder pain using these approaches: http://activelifescientific.org/
Books	<ul style="list-style-type: none"> • <i>Back Sense: A Revolutionary Approach to Halting the Cycle of Chronic Back Pain</i>, Douglas R. Johnson, Michael Urdang, and Ronald D. Siegel • <i>They Can't Find Anything Wrong</i>, David Clark • <i>Crooked: Outwitting the Back Pain Industry and Getting on the Road to Recovery</i>, Cathryn Jakobson Ramin • <i>Back in Control</i>, David Hanscom, MD (A complex-deformity spine surgeon's take on chronic back pain.) • <i>The Divided Mind, The Mind Body Prescription, or Healing Back Pain</i>, John Sarno, MD. (Dr. Sarno, who died at age 94 in 2016, is considered the originator of the idea that pain is in the mind. His book was written in 2008 and does not refer to the new neuroscience that supports his ideas, but the book has helped thousands of people resolve their chronic pain issues.) • <i>Unlearn Your Pain</i>, Howard Schubiner
Psychotherapy	<ul style="list-style-type: none"> • Psychotherapy is often helpful for people who are not having success with self-guided methods of education and treatment. The <i>Center for Mind Body Medicine</i> can help you find an experienced therapist if you decide this might help in your situation.
Expressive writing	<ul style="list-style-type: none"> • This is an easy treatment that is very effective for many people, even before you fully understand neural pain pathways. • Try writing about your feelings and emotions once a day for 20 minutes. • You do have to acknowledge that you are <u>having</u> feelings and emotions, which for some people can be difficult. But if you can, let yourself feel your emotions. Don't hesitate and don't worry if it is legible or grammatically correct. Just get your thoughts out onto the page. Then destroy the page. Do not keep it. • Negative emotions such as fear and anger essentially tell your danger-alarm mechanism that things are bad, and it had better remain on guard. Getting the negative self-talk and thoughts out of your subconscious and onto a page - then discarding what you wrote - can sometimes reduce the hypersensitivity in your nervous system.