#### **Understanding Chronic Pain**

# **Chronic Pain**

Pain is produced by the brain. Pain longer than 3 months is considered chronic.

This type of pain is different than the original pain you started with.

Once anything bad is ruled out and most things are healed, pain that continues is less about the body being hurt and more about the nerves being angry.

When you originally felt pain there was tissue damage. Your body tried to repair that damage. You may have stopped movement that caused the pain, which further led to muscle weakness and ligaments getting tighter. Weaker muscles can cause increase pressure on the joints. Your body now has a memory of that pain. Our nervous system did not like having that damage and pressure, so it set up a way to protect you from more damage. The nervous system will change in order to protect you. Continued pain does not mean that you getting more damage. Hurt does not always mean harm.

So we need to retrain the brain and the nervous system. It is not simple. It involves your thoughts, feelings, body and way of life. All parts need to be considered. Medication can help somewhat, but a more active approach is what is needed to retrain the brain. It is important to realize that your thoughts and emotions affect the nervous system. Stress can have a big impact on your pain level and it is necessary to learn ways to decrease stress.

To help us decrease the pain we need to change the way the brain is protecting you and this takes time. We must move very slowly. If you move too quickly, your angry nerves get more angry and will with pull out all the bells and whistles to prevent you from doing what it thinks will hurt you. It might give you pain for days, or headaches, or even cause you to vomit. It will do what it can to protect you from it thinks is harmful. You must gradually change your angry nerves. You must ask Is this harmful, really?



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Moving the nervous system slowly can help to decrease pain. It can decrease swelling and make muscles more flexible and stronger. First you must find your baseline. This is a time you can walk or do an activity without causing any pain. Then add no more than 30 seconds to that time each day. The brain will allow this small amount of time and not create a flare up. Keep adding 30 seconds each day. Your nerves are is so angry that you might have a flare up anyway. If you do, don't give up, just pick up the next day at the highest time you were able to walk without a flare up.

Decreasing stress and anxiety will also decrease pain. When you are stressed, your body puts out the chemicals adrenaline and cortisol. These are the chemicals the brain puts out during the flight and fight responses. If we are as an example, running from danger, we do not need to digest food or even sleep. Therefore, with high levels of these chemicals we may feel stomach pain and problems like constipation, diarrhea, and stomach cramps. You may also have a problem sleeping. When we have stress often, we get too much cortisol and it does not get used up. We must get rid of the cortisol for our stomachs to feel better and to sleep well. Some of the ways to help get rid of the cortisol are:

- 1. Exercise like walking, swimming, biking, dancing
- Mindfulness and meditation
- 3. Spending time with family and friends and feeling close
- 4. Laughter
- 5. Music



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Your emotions are the affected by your thoughts and you are affected by your emotions. If you totally think you are "broken" you will have a hard time making your brain believe you are ok. The first step toward healing is telling yourself that you are "ok". This will help to calm the angry nerves and the brain.

**Breathing** can be very helpful to make the stress and less and calming the nerves. There is a right way to breathe in order to get good results. Place your right hand on your chest and your left hand on your belly. Your left hand should move mostly. If only the right hand moves, then you are breathing with your chest and not your diaphragm. This means you are breathing too shallowly. Think about your left hand (belly) moving out when you take air in and in when you let the air out. This gets more oxygen to all parts of the body. Practice 3 breaths every hour.

Don't breathe too quickly. Now try some **deep breathing**. Breathe in for 4 seconds and breathe out for 6-8 seconds. The long time of breathing out helps to get rid of carbon dioxide to lets you take in more oxygen.

