

*J. Stepanchuk, Student*  
*N. Samborska, PhD in Ped., language advisor*  
*CHEI “Zhytomyr Medical Institute”*  
*Zhytomyr Regional Council*

## **WHAT IS PAIN AND HOW TO DEAL WITH IT**

What is pain? It might seem like an easy question. The answer, however, depends on who you ask. Pain scientists are reasonably agreed that pain is an unpleasant feeling in our body that makes us want to stop and change our behaviour. Pain warns us what things are dangerous, and so helps us avoid damage to our body. If the body is already damaged, pain helps with healing because it makes us protect our injuries. [1]

When you stub your toe or touch something hot, your body releases chemicals that send pain signals up through the spinal cord to receptors in the brain. The brain then sends the pain message back down to the part of the body that hurts. But although it's the interpreter of pain, the brain itself does not have pain-sensitive nerves. Only the structures that surround the brain feel pain. As a matter of fact, once inside the brain, surgeons can operate on the brain without anesthesia. In one technique known as brain mapping, surgeons probe brain tissue while monitoring reactions like muscle movement and speech — all while the patient is awake.[2]

Some babies are born with a rare condition that makes them unable to feel pain. They do not learn the lessons that pain teaches, and as a result suffer many fractures and infections.

Women actually do experience more pain than men over their lifetimes because of conditions and experiences such as menstruation, childbirth, and migraine headaches. Studies also show that women may experience pain differently — often more intensely — than men do. For example, some animal studies show that females require twice as much pain medication to get the same relief as males. However, there's conflicting research on whether women actually have a higher tolerance for pain than men (although millions of women who have gone through childbirth might disagree).[3]

Pain sometimes works in strange ways. It is possible, for example, to suffer a serious injury but not feel any pain - soldiers battle may not feel pain from wounds until after the battle. The opposite can happen too - patients who lose a limb can continue to feel pain in the limb long afterwards, even though it is missing. This “phantom limb” pain is an example of neuropathic pain, caused by damage to the remaining nerves.

Different types of pain will be treated in different ways. A treatment that is effective against one type of pain may not relieve another.

Drugs relieve pain in two ways. Some block the nerves' messages and prevent them getting to the brain. Others change the way the brain receives the messages, reducing their effect. Many methods of controlling chronic pain without drugs have been developed. These include:

*Acupuncture:* The use of needles at certain pressure points can provide an

analgesic effect.

*Nerve blocks:* These injections can numb a group of nerves acting as a source of pain for a specific limb or body part.

*Psychotherapy:* This can help with the emotional side of ongoing pain. Chronic pain can often affect the enjoyment of everyday activities and can lead to not being able to work. A psychotherapist can help to enhance understanding and put in place lifestyle changes to enable these parts of life.

*Transcutaneous electrical nerves stimulation (TENS):* TENS aims to stimulate the brain's opioid and pain gate systems to provide relief.

*Surgery:* Various surgeries of the nerves, brain, and spine are possible to relieve chronic pain. These include rhizotomy, decompression, and electrical deep brain and spinal cord stimulation procedures.

*Relaxation therapies:* This covers a wide range of controlled relaxation techniques and exercises, mostly in the realm of alternative and complementary medicine. This can include hypnosis, yoga, meditation, massage therapy, distraction techniques, and tai chi.

*Physical manipulation:* a physiotherapist or chiropractor can sometimes help relieve pain by manipulating the tension from a person's back.

*Heat and cold:* Using hot and cold packs can help. These can be alternated or selected according to the type of injury or pain. Some medications have a warming effect when applied topically to the affected part.

*Rest:* If the pain is due to an injury or a repetitive action, rest may be the best option. [4]

Pain is vital part of our body's defenses, and without it we could not survive but at the same time it is the most common reason for seeking medical care.

## REFERENCES

1. What is pain and what is happening when we feel it? Available at: <<https://www.iflscience.com/health-and-medicine/what-pain-and-what-happening-when-we-feel-it/>>

2. *The brain doesn't feel pain.* Available at: <<https://www.everydayhealth.com/pain-management/fascinating-pain-facts-you-didnt-know.aspx>>

3. *Women feel more pain than men.* Available at: <[https://www.everydayhealth.com/pain-management / fascinating-pain-facts-you-didnt-know.aspx](https://www.everydayhealth.com/pain-management/fascinating-pain-facts-you-didnt-know.aspx)>

4. What is pain and how do you treat it? *Medical News Today.* Available at: <<https://www.medicalnewstoday.com/articles/145750.php>>