

Pain Management

Pain is the body's way of responding to damaged tissue. How a person responds to pain is determined by many factors, including emotional outlook. For example, depression seems to increase a person's perception of pain and to decrease his or her ability to cope with it. Pain is classified as acute (short duration due to an injury) or chronic (longer lasting, or recurring).

OI experience both acute and chronic pain. Pain management for OI, in both adults and children, requires adequate assessment, and development of an individualized plan that provides a variety of strategies for coping with and managing pain. Pain management for individuals with OI often requires a multidisciplinary approach involving specialists in medicine, psychology, and rehabilitation or a referral to a pain specialist or to a pain clinic for adequate treatment. The goal for treatment is effective therapy that will not only reduce or remove the pain but will also achieve mental well-being and an improvement in physiological function.

The following information provides an introduction to some of the topics involved in managing chronic or acute pain.

Physical Methods of Pain Management

Heat and Ice: Heat in the form of warm showers or hot packs can relieve chronic pain or stiff muscles. Cold packs or ice packs provide pain relief by numbing the pain-sensing nerves in the affected area. Cold may also prevent swelling and inflammation. Heat or ice should be applied for 15 to 20 minutes at a time to the painful area, and a towel should be placed between the skin and the source of the cold or heat to protect the skin.

Transcutaneous Electrical Nerve Stimulation (TENS): A TENS machine is a small device that sends electrical impulses to certain parts of the body to block pain signals. Two electrodes are placed on the body where the person is experiencing the pain. The electrical current that is produced is very mild, but it can prevent pain messages from being transmitted to the brain. Pain relief can last for several hours. TENS machines are available in a wide variety of sizes.

Exercise or Physical Therapy: Exercise or physical therapy, under the supervision of a health professional who understands the nature of OI, can be effective in strengthening muscles, improving stamina, and helping an individual have a more positive outlook on life. Exercise raises the body's level of endorphins (natural painkillers produced by the brain).

Acupuncture: Acupuncture involves the use of special needles that are inserted into the body at specific points. These needles are believed to stimulate nerve endings and cause the brain to release endorphins. It may take several acupuncture sessions before the pain is relieved. A certified practitioner is required.

Psychological Methods of Pain Management

Relaxation training, mindfulness, medication, visual imagery: All of these techniques have been shown to help relieve pain, and promote a sense of well-being. Training is needed.

Biofeedback: Biofeedback is taught by a professional who uses special machines to help a person control certain functions such as heart rate and muscle tension. As the person learns to release muscle tension, the machine immediately indicates success. Biofeedback can be used to reinforce relaxation training. Once the technique is mastered, it can be practiced without the use of the machine.

Medications for Pain Management

Many different types of medications are available either over-the-counter or by prescription. Serious complications can be caused by either type. These can range from stomach upset or constipation to liver failure or difficulty breathing. It is important to talk to your doctor about all of the medicines and supplements you take, and to read

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all labels and package inserts. **Because of small stature, many people who have OI cannot safely take the standard dose for either children or adults.**

Over-the-counter (OTC) pain relievers: While these medications are relatively safe, they can still cause side effects, such as stomach upset or delay fracture healing. Complications can arise from taking too much or for too long a time. Be sure to follow manufacturer's directions and read labels to ensure you're aware when ibuprofen or acetaminophen is included in a multi-symptom medicine. Keep your primary care doctor informed about all OTC medicines you take.

Topical Pain Relievers: A variety of topical creams may also relieve pain when they are rubbed directly into the painful area. While some of these creams are available by prescription only, others may be purchased over-the-counter. Because OI skin is thin, some of these products may be too strong or may injure the skin.

Narcotic or opioid pain medication: These powerful pain-relieving medications alter a person's perception of pain. They are frequently prescribed after surgery. They can also induce euphoria, mood changes, mental cloudiness, and deep sleep. Common complications include nausea, lethargy, slowing-down breathing and constipation. Narcotics can affect a person's balance and increase the chance of falling.

Nerve block: In some cases, a physician may perform a nerve block that involves the injection of pain-relieving medications into the tissues around an affected nerve. The block numbs the nerves and surrounding tissues and eliminates the sensation of pain. Pain relief may last for hours or months, depending on the medications used and the person's response to them.