

Pain

Patient Education Handout *A service for patients*

UNDERSTAND the problem

In 1931, the French medical missionary Dr. Albert Schweitzer wrote, "Pain is a more terrible lord of mankind than even death itself." Today, pain has become the universal disorder, a serious and costly public health issue, and a challenge for family, friends, and healthcare providers who must give support to the individual suffering from the physical as well as the emotional consequences of pain.

The Two Faces of Pain: Acute and Chronic

What is pain? The International Association for the Study of Pain defines it as an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.

It is useful to distinguish between two basic types of pain, acute and chronic, and they differ greatly.

Acute pain, for the most part, results from disease, inflammation, or injury to tissues. This type of pain generally comes on suddenly (e.g., after trauma or surgery) and may be accompanied by anxiety or emotional distress. The cause of acute pain can usually be diagnosed and treated, and the pain is self-limiting—that is, it is confined to a given period of time and severity. In some rare instances, it can become chronic.

Chronic pain is widely believed to represent disease itself. It can be made much worse by environmental and psychological factors. Chronic pain persists over a longer period of time than acute pain and is resistant to most medical treatments. It can—and often does—cause severe problems for patients. A person may have two or more co-existing chronic pain conditions. Such conditions can include chronic fatigue syndrome, endometriosis, fibromyalgia, inflammatory bowel disease, interstitial cystitis, temporomandibular joint dysfunction, and vulvodynia. It is not known whether these disorders share a common cause.

HOW is pain diagnosed

There is no way to tell how much pain a person has. No test can measure the intensity of pain, no imaging device can show pain, and no instrument can locate pain precisely. Sometimes, as in the case of headaches, physicians find that the best aid to diagnosis is the patient's own description of the type, duration, and location of pain. Defining pain as sharp or dull, constant or intermittent, burning or aching may give the best clues to the cause of pain. These descriptions are part of what is called the pain history, taken by the physician during the preliminary examination of a patient with pain. In addition to a patient's report of his or her pain, certain tests can give some insight into the cause of pain. Electrodiagnostic procedures can help physicians tell precisely which muscles or nerves are affected by weakness or pain. Imaging (e.g., x-ray, MRI) and neurological examination can provide valuable information as well.

WHAT are the treatment options

The goal of pain management is to improve function, enabling individuals to work, attend school, or participate in other day-to-day activities. Patients and their physicians have a number of options for the treatment of pain; some are more effective than others. Sometimes, relaxation and the use of imagery as a distraction provide relief. These methods can be powerful and effective, according to those who advocate their use. Whatever the treatment regimen, it is important to remember that pain is treatable. The following treatments are among the most common.

Acupuncture dates back 2,500 years and involves the application of needles to precise points on the body. It is part of a general category of healing called traditional Chinese medicine. Acupuncture remains controversial but is quite popular and may one day prove to be useful for a variety of conditions.

Analgesics are a class of drugs that includes most painkillers, such as aspirin, acetaminophen, and ibuprofen. The word analgesic is derived from ancient Greek and means to reduce or stop pain. Nonprescription or over-the-counter pain relievers are generally used for mild-to-moderate pain. Prescription pain relievers, sold through a pharmacy under the direction of a physician, are used for more moderate-to-severe pain.

Anticonvulsants are used for the treatment of seizure disorders but are also sometimes prescribed for the treatment of pain. Carbamazepine in particular is used to treat a number of painful conditions, including trigeminal neuralgia. Another antiepileptic drug, gabapentin, is valued for its pain-relieving properties, especially as a treatment for neuropathic pain.

Antidepressants are sometimes used for the treatment of pain and, along with neuroleptics and lithium, belong to a category of drugs called psychotropic drugs. In addition, anti-anxiety drugs called benzodiazepines also act as muscle relaxants and are sometimes used as pain relievers. Physicians usually try to treat the condition with analgesics before prescribing these drugs.

Biofeedback is used for the treatment of many common pain problems, most notably headache and back pain. Using a special electronic machine, the patient is trained to become aware of, to follow, and to gain control over certain bodily functions, including muscle tension, heart rate, and skin temperature. The individual can then learn to effect a change in his or her responses to pain, for example, by using relaxation techniques.

Chiropractic care may ease back pain, neck pain, headaches, and musculoskeletal conditions. It involves "hands-on" therapy designed to adjust the relationship between the body's structure (mainly the spine) and its functioning.

Cognitive-behavioral therapy involves a wide variety of coping skills and relaxation methods to help prepare for and cope with pain. It is used for postoperative pain, cancer pain, and the pain of childbirth. Counseling can give a patient suffering from pain much needed support, whether it is derived from family, group, or individual counseling. Support groups can provide an important adjunct to drug or surgical treatment. Psychological treatment can also help patients learn about the physiological changes produced by pain.

Electrical stimulation, including transcutaneous electrical stimulation (TENS), implanted electric nerve stimulation, and deep brain or spinal cord stimulation, is the modern-day extension of age-old practices in which the nerves of muscles are subjected to a variety of stimuli, including heat or massage. Electrical stimulation, no matter what form, involves a major surgical procedure and is not for everyone, nor is it 100% effective.

Nerve blocks employ the use of drugs, chemical agents, or surgical techniques to interrupt the relay of pain messages between specific areas of the body and the brain. There are many different names for the procedure, depending on the technique or agent used. Types of surgical nerve blocks include neurectomy; spinal dorsal, cranial, and trigeminal rhizotomy; and sympathectomy, also called sympathetic blockade.

Opioids are derived from the poppy plant and are among the oldest drugs known to humankind. They include codeine and, perhaps the most well-known narcotic of all, morphine. Morphine can be administered in a variety of forms, including a pump for patient self-administration. Opioids have a narcotic effect; that is, they induce sedation as well as pain relief, and some patients may become physically dependent upon them. For these reasons, patients given opioids should be monitored carefully; in some cases stimulants may be prescribed to counteract the sedative side effects. In addition to drowsiness, other common side effects include constipation, nausea, and vomiting.

Surgery, although not always an option, may be required to relieve pain, especially pain caused by back problems or serious musculoskeletal injuries.

WHERE can I get more information

For more information on pain or neurological disorders, visit the National Institute of Neurological Disorders and Stroke's Brain Resources and Information Network (BRAIN) at <http://www.ninds.nih.gov>. Information also is available from the following organizations:

National Institute of Dental and Craniofacial Research (NIDCR)

<http://www.nidcr.nih.gov>

American Chronic Pain Association

<http://www.theacpa.org>

American Headache Society Committee for Headache Education (ACHE)

<http://www.achenet.org>

American Pain Society

<http://www.americanpainsociety.org>

National Headache Foundation

<http://www.headaches.org>

Arthritis Foundation

<http://www.arthritis.org>

This information is reprinted from *Pain: Hope Through Research* provided by the National Institute of Neurological Disorders and Stroke, which is part of the National Institutes of Health and the U.S. Department of Health and Human Services.

This handout is provided to you by CME Resource and your healthcare provider. For more information, please consult your physician.