

Chronic Pain

(Also called Chronic Nonmalignant Pain, Chronic Benign Pain)

Description of the Disability

Most pain we feel is “acute” – meaning it only lasts a limited time and is linked to an injury of some sort. The body responds with inflammation, the tightening of nearby muscles to immobilize the injury, and other changes, until the injury can heal. As healing occurs, the pain fades.

In contrast, chronic nonmalignant pain (CNP) lasts at least 6 months and takes on a life of its own as a disease, independent of whatever initial injury may or may not have been present at first. For unknown reasons, changes can happen in the body to perpetuate these pain signals even after healing has finished, so the body keeps generating pain signals as if new injury is happening or the old one has not healed. The chronic nonmalignant pain may be continuous or it may show a pattern of “flare-ups” which can vary in frequency, duration, and intensity. The flare-up may be triggered by a variety of activities or may have no apparent triggers.

Other changes in the body can increase the amount of pain the person experiences. Previously minor pain stimuli can become much more painful (called hyperalgesia). Other non-pain stimuli, such as vibration, temperature, or touch, can become painful as well (called allodynia). Some physicians consider chronic pain to be an aggressive disease in its own right.

One difficulty with studying and treating pain is that all types of pain are subjective and can only be reported and measured by the person experiencing the pain. In fact, there are many instances of people getting a significant injury without significant pain and others get significant pain without detectable injury (the entry on back pain). This does not mean that some individuals are “tougher” or that others are “faking it”, it just means that pain is variable. Only the individual can determine what level and type of pain they are feeling, and they may have difficulty finding words to describe the details of the pain. The person may describe the pain with words such as tingling, burning, freezing cold, aching, sharp, dull, deep, crawling ants, piercing, throbbing, and electric. Some pains are not easy to localize and may be body-wide.

Many factors can influence the amount and type of pain someone feels, including physiological issues, coping styles, social support, and stress levels. The constant drain of energy in coping with the pain can cause fatigue, sleeping problems, emotional difficulties, loss of appetite, social isolation, and inactivity in the individual. Fortunately, a variety of treatments can help reduce and manage chronic pain. However, most treatments for chronic pain do not end the pain, they only reduce it.

Contrary to popular opinion, it is rare today for people to become addicted to pain medications. Physicians are more likely to under-prescribe drugs than over prescribe them, and most physicians will prescribe daily doses of a mild pain reliever rather than the older “as-needed”

doses of powerful pain relievers once used. When powerful pain relievers are needed, their administration is closely monitored.

There are three basic types of chronic pain:

- Nociceptive pain is triggered by damaged tissue and may last for weeks or years if the tissue does not heal properly or becomes chronically inflamed (Nociceptors are the basic pain nerves). Arthritis, osteoporosis, some kinds of back pain, and some kinds of cancer pain are nociceptive.
- Neuropathic pain results from damage to the nerves themselves rather than to tissue. It is frequently experienced as burning, tingling, or aching. Examples of neuropathic pain include the many types of “neuropathy” and “neuralgia” syndromes.
- Idiopathic pain is the description for pain without any obvious cause.

Coexisting factors include obesity, depression, cardiac problems, respiratory problems, and anxiety.

Incidence Statistics

- At least 75 million Americans experience some form of debilitating chronic pain
- Nearly 60% of people with chronic pain also report significant depression or anxiety.
- About 15 % of adults in the US have persistent low-back pain at some point in their lives.
- Approximately 40 million Americans suffer chronic, recurring headaches.
- Approximately 20 million Americans have significant arthritis.
- Approximately 7.5 million people--about 4 percent of the U.S. adult population --report pain in the face or jaw.
- More than 3 million people experience chronic pain from cancer.

Although chronic pain often does not have a specific diagnosis, some specific chronic pain conditions exist. They include:

- Complex Regional Pain Syndrome (CRPS) - (also called Causalgia or Reflex Sympathetic Dystrophy (RSD)) CRPS is caused by abnormal activity in the sympathetic nervous system, resulting in pain as well as a variety of secondary symptoms. These can include reduced limb function, changes in skin sensitivity, changes in temperature, swelling, and other effects. The only consistent feature is severe pain.
- Chronic Low Back Pain (see entry on back pain)
- Arthritis (see entry)
- Angina - painful, sudden chest spasms associated with coronary artery disease

- Fibromyalgia (see entry on fibromyalgia)
- Headaches (can be debilitating)
- Myofascial Pain Syndrome - involves inflammation of a muscle or muscle group and the associated sheets of connective tissues (called fascia). Causes are unclear.
- Polyneuropathy -- Also known as Stocking and Glove Neuropathy. Damage to nerves in the extremities, usually the feet, causing pain that gradually spreads toward the trunk.
- Shingles (Acute Herpes Zoster) - a rash, with accompanying severe pain, which is caused by the chickenpox virus resurfacing in adults, usually after age 50. The rash and pain tend to be on one side of the body or face. Movement or touching of the area increases the pain.
- Trigeminal Neuralgia (also called tic douloureux) - an inflammation of the trigeminal nerve, causing severe pain and muscle spasms in the face. Touching the face or activities like chewing, swallowing, or talking can trigger the spasms once the nerve is inflamed.

Common Treatments, Medications, and Side Effects

- Thermotherapy – heat packs, cold packs, paraffin baths, ultrasound, and other variants on heat or cold treatments can help by improving blood flow and relaxing muscles in the area.
- Massage to reduce muscle tension
- Analgesic Drugs - Aspirin is often very useful for reducing pain. Ibuprofen and other Nonsteroidal Anti-Inflammatory Drugs (NSAIDS) are also very effective. Narcotic pain drugs are also common, with a physician's prescription. (See the drugs section of this book for side effects)
- Antidepressants - Some SSRIs such as Prozac also seem to help with chronic pain. They probably affect the serotonin-mediated parts of the brain's pain symptoms. These are especially useful for shingles and for facial neuralgias. (See the drugs section of this book for side effects)
- Antiseizure Drugs - Some antiseizure drugs appear to help reduce pain, but the mechanism is not clear. They are mainly effective for facial neuralgias such as trigeminal neuralgia.
- Transcutaneous Electrical Nerve Stimulation (TENS) - It is not clear what mechanisms are involved in this residual relief from pain through electrical stimulation of the nerves. The treatment may be mildly to distinctly uncomfortable, depending on the frequency setting of the stimulation, and may last up to an hour or more. Relief can last several hours.
- Neurostimulation - in some cases, especially those involving widespread cancer, physicians surgically implant electrodes in parts of the brain rich in opiate receptors, in the spine, or on specific peripheral nerves. The patient is then able to use a transmitter to apply current when needed and adjust the intensity as needed to block the pain. The

individual may feel a tingling sensation from the stimulation. One advantage of this approach is the lack of side effects on other senses - there is no drowsiness and no mental confusion.

- Drug pump - a small pump can be surgically implanted to slowly deliver small doses of anti-pain drugs such as morphine directly into the spinal fluid. The low doses reduce side-effects and provide continuous pain reduction.
- Counseling - Psychotherapy can help individuals learn to cope with chronic pain and make the lifestyle adjustments needed to manage the pain.
- Physical Therapy/Occupational Therapy – These therapies can teach exercises to help reduce the pain, increase function, and increase independent living.
- Relaxation Therapy/Biofeedback - training in techniques of muscle relaxation can also help reduce and control the pain. This may include biofeedback, hypnosis, and meditation. The relaxation techniques can also help with any associated depression and anxiety.
- Surgery - in extreme cases, surgeons may cut the nerves involved and permanently block the pain. This can also cause sensory loss in the area and possible loss of mobility. Tragically, the pain sometimes returns 6 months to a year after the surgery. Because of this, surgical treatment is usually limited to terminally ill patients with chronic pain.
- Nerve Block - A local anesthetic or steroid (see drug entry on cortisone) may be injected into or around the nerve to keep it from transmitting pain. There is a slight chance of causing permanent nerve or muscle damage.
- Lifestyle Changes - Several lifestyle changes may help reduce chronic pain. These include better sleep habits, weight loss, stopping smoking (nicotine reduces the effectiveness of some pain drugs), and eliminating the use of alcohol.
- Acupuncture – although still considered an “alternative therapy”, many people find that acupuncture helps reduce the pain. The mechanism involved is not clear, but there have been reports of increased endorphins in the spinal fluid following acupuncture.

Possible Functional Issues

- Depression (especially common)
- Reduced mobility
- Reduced muscle strength
- Difficulty with concentration
- Difficulty following conversations
- Difficulty staying on task
- Fatigue
- Anxiety
- Possible difficulty sticking to schedules and making appointments

- Over optimism about abilities during pain-free episodes

Initial Interview Considerations

Initial Questions

- How do they describe their pain?
- What pattern or cycle if any have they found to their pain?
- What sorts of treatment are they getting? If they are taking medication, does it have any side effects?
- How has the pain affected their lives? What can they do or not do because of it? Are there specific things they avoid because of the pain?
- What triggers have they noticed for the pain, if any?
- What kinds of emotional stress have they noticed that make the pain worse?
- How do they cope with the pain during a flare-up? What steps do they take?
- Is there a particular place they like to go to as a sort of refuge during a flare-up? The bedroom, for instance? What features of that place makes it appealing?
- Are they especially sensitive to hot and cold? To vibrations? To touch?
- Are they able to keep to a regular schedule during the day, or is the pain too unpredictable?
- How has the pain affected their family?
- What hobbies or interests do they have that have NOT been influenced by the pain?
- What sorts of activities do they currently participate in? Do they go shopping? Do they go out socially? Do they take trips?
- Has it interfered with their sleep? Are they taking any sleep aids?

Initial Observations

- Does the person seem depressed or anxious?
- Does the person have difficulty following the conversation?
- Is the person able to sit still or do they need to shift and move around frequently?
- Are they wearing any kind of brace or support that might limit their range of motion?
- Are they able to walk without difficulty?
- Does the person seem tired?

Interview Accommodations (if any)

- Make sure they are comfortable. Have a cushioned but firm chair available if possible. Have small pillows available for their use if possible.
- Small acts of kindness - getting them a cup of coffee or tea, handing objects to them so they don't have to get up - may be greatly appreciated.
- Be prepared to repeat yourself if the person is having difficulty following the conversation. The pain of a flare up may distract them.
- If there are specific things they need to do, such as request medical forms or go for an appointment, follow-up with a phone call a few days later to check on their progress.

Possible Accommodations and Assistive Technology

- Frequent breaks
- Flexible work schedule, including the option for hours off or days off on short notice
- A quiet place they can lie down and relax during a flare-up
- Limited physical activity or modified physical activity
- Self-employment or home-based employment

Career Planning Issues

- Endurance and concentration issues need to be considered
- Ability to think and to learn is not likely to be affected
- Motivation and work habits are not likely to be affected
- Work history is not likely to be affected
- Social skills are not likely to be affected, but may be reduced by irritability from the pain
- Verbal and written skills, and hand-eye coordination are not likely to be affected
- May be good candidates for higher education or vocational/technical classes.
- May be good candidates for self-employment or home-based employment, allowing them to have a flexible schedule and other accommodations.

Emerging Issues

- Social recognition of chronic pain as a real and significant condition
- Effective types of treatment

Additional Information Resources

- The American Chronic Pain Association: www.theacpa.org
- The American Pain Foundation: www.painfoundation.org/
- The American Academy of Family Physicians: home.aafp.org
- Stop Pain.org, Beth Israel Medical Center Pain Clinic, Stop Pain: www.stoppain.org/