

At IWP, we specialize in helping injured workers manage pain and receive the benefits and services needed to return to a productive life.

Chronic pain affects about 1 out of every 4 people in the U.S. at a cost of about \$600 billion per year. Pain has become a widespread problem that we at IWP care about improving.

We've put this pamphlet together to help you learn more about what pain is, what can be done about it and important facts for you to know when managing pain.

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This information is provided for adults with pain. It does not cover interventions delivered in specialized care, pediatrics, prenatal care or treatment of pain caused by specific disease states. It is not a replacement for advice from health care providers.



Pain lasting longer than three months or past the time of normal tissue healing is generally called "chronic pain." The pain experience is influenced by many complex factors. To develop a pain management plan that works for you, it is helpful to understand how pain works.

How pain works

The process of becoming aware of pain happens through four phases: transduction, transmission, modulation and perception.³

Transduction occurs when pain is changed into a signal or information your nerves can use.

Examples of medications thought to act on this phase of the pain process include capsaicin, nonsteroidal anti-inflammatory drugs (NSAIDs), COX-2 inhibitors and acetaminophen (Tylenol®).

• **Transmission** is the movement of the pain signal or information toward the brain.

Examples of medications thought to act on this phase of the pain process include local anesthetics, opioids, alpha-2 agonists, anticonvulsants and acetaminophen (Tylenol®).

• **Modulation** is the way the body can decrease or increase pain-related signals.

Examples of medications thought to act on this phase of the pain process include select antidepressants and opioids.

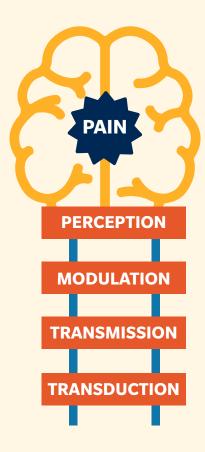
• Perception is how you experience pain.

Examples of medications thought to act on this phase of the pain process include select antidepressants, opioids and alpha-2 agonists.⁴

Please see the section on medication options for more information.

There is a complex connection between the mind and body when it comes to feeling pain. In addition to basic pain signaling associated with an injury, the perception of pain may be impacted by many things including genetics, mood and social factors (e.g., ability to socialize with friends or participate in hobbies).

Even when an injury heals, the brain may continue to send pain signals. To help retrain the brain and nervous systems to combat this process, you may need to use options aimed at more than just one pain-causing factor. Using a combination of alternative therapies can be very effective.⁵



Treatment options

The goal of pain treatment is to improve recovery, which is measured by some improvement in pain, function and/or quality of life, while minimizing any harmful complications.

There are many options available to treat pain, and what will work for you may be different than what works for someone else.

It is important to weigh the benefits and risks of each option before deciding what treatments are best for you. In addition to medication, a recent review found that many non-medication treatments are useful for the treatment of chronic pain.⁸

What you can do

Pain can lead to distress, decreased quality of life, limited activity, decreased function and poor sleep. There are things you can do to help correct the negative effects of pain.

• Learn skills to play an active role in managing pain

Living with chronic pain can be stressful, sometimes more stressful than the pain itself. Talking with a doctor or counselor and learning skills such as cognitive behavior therapy (CBT) may help improve your quality of life. Because many patients with chronic pain also suffer with depression, make sure to report symptoms such as fatigue, decreased energy and sadness to your physician. Treating depression can also help manage your pain.

Set goals

Helpful goals are specific, realistic and can be done in a reasonable amount of time: for example, "I'd like to be able to go back to work within the month." Most experts set realistic treatment goals of about 30 percent improvement in pain, function or quality of life. Experts often use improved function as the main goal because function may improve even when pain is still present.

• Engage in healthy behaviors

A healing environment, good eating habits and a healthy lifestyle can help improve your brain's perception of pain. Make it a priority to begin or maintain regular daily activity as your condition allows. Sleeping during normal nighttime hours can also be helpful, as poor sleep can lead to pain, fatigue and trouble concentrating. If you have trouble sleeping talk to your doctor or check out the Fibroguide listed at the end of this pamphlet.

• Other non-medication treatment options include:

- Monitoring and controlling your body's functions (e.g., heart rate)
- Relaxation, meditation or breathing exercises
- Individual or group counseling
- · Aerobic exercise or activity, including physical or occupational therapy
- Acupuncture
- · Applying heat or ice
- · Injections or surgery



What you, your family and caregivers should know

- It is important to carry an accurate and up-to-date list of your medications with you. Health care providers may look at your medication list in case of an emergency or even at a regular appointment. Your IWP medication list is available for printing from the IWP patient portal at any time.
- Take your medications as directed by your physician and do not take more than you are prescribed as this could increase your risk of adverse events.
- All medications have potential benefits and risks that should be carefully considered before and during ongoing treatment.

Important facts about opioids (i.e., narcotics)

- Opioids come with important responsibilities, such as safe storage and disposal. Over 50 percent of recent first-time misusers of pain relievers report getting their drugs from a friend or relative without asking. ⁷ It is important to pay attention to those who have access to your medications to help reduce the risk of misuse, abuse and overdose.
- Unwanted effects of opioids include potential death from breathing difficulties and the possibility of developing a lifelong opioid use disorder (OUD) that can cause distress and the inability to return to a productive life. This can involve the misuse of prescribed opioid medications, use of diverted opioid medications or illicitly obtained heroin. OUD is typically a chronic, relapsing illness associated with significantly increased rates of morbidity and mortality.
- When opioids are taken with benzodiazepines, other sedatives, alcohol, illicit drugs such as heroin, or other opioids there is an increased risk for trouble breathing, and there may be a greater risk for death.
- Opioids may affect your ability to safely operate a vehicle, particularly when you first start taking opioids, when dosages are increased or when other central nervous system depressants, such as benzodiazepines or alcohol, are used with them.
- Opioids can cause constipation or what is commonly known as OIC. If opioids are prescribed for more than a few days, you should talk to your doctor about options. Stool softeners or laxatives, increased hydration, fiber intake and physical activity often help with constipation.
- Opioids can cause dry mouth, nausea, vomiting, drowsiness and confusion, and they are associated with tolerance development and physical dependence. When stopping opioids, withdrawal symptoms can occur.
- Opioids can increase sensitivity to pain. In some cases, opioids are associated with feeling more pain instead of less over time. If opioids stop working over time, a decrease in opioid use or dose may be required to manage pain.⁸
- If you are taking opioids, it is important to continue to assess how the medications are helping meet your goals, and to talk to your provider about decreasing or stopping therapies that do not work or are more harmful than helpful over time.

Medication treatment options

Treatment goals should be met with both medication and non-medication therapies.³ You should talk to your doctor before taking medications, including over-the-counter medications and herbals. Always use medications as prescribed and do not take more than prescribed.

Medications that have been used for pain include: 4,6

- Acetaminophen (e.g., Tylenol[®])
- Nonsteroidal anti-inflammatory drugs (NSAIDs) (e.g., ibuprofen or naproxen)
- Celecoxib/Celebrex[®]
- · Tramadol, tapentadol
- · Opioids, also known as narcotics (e.g., oxycodone, morphine, hydromorphone, codeine, fentanyl, hydrocodone)
- Alpha-2 adrenergic agonists (e.g., clonidine)
- Antidepressants tricyclics (TCAs) and serotonin-norepinephrine reuptake inhibitors (SNRIs) (e.g., desipramine, nortriptyline, amitriptyline, duloxetine, milnacipran, venlafaxine and others)
- Anticonvulsants (e.g., gabapentin, pregabalin and others)
- Muscle relaxants (e.g., cyclobenzaprine, tizanidine, baclofen, methocarbamol and others)
- Topical analgesic agents (e.g., lidocaine, capsaicin, menthol and others)

Helpful resources

IWP Patient Portal

https://portal.iwpharmacy.com

• How Does Your Brain Respond to Pain?

International Association for the Study of Pain

http://www.iasp-pain.org/Education/Content.aspx?ItemNumber=3552

Video length: 4:57

• Why Things Hurt

International Association for the Study of Pain

http://www.iasp-pain.org/Education/Content.aspx?ItemNumber=3544

Video length: 14:32

Understanding Pain

https://vimeo.com/137163303

Video length: 6:00

• How to Dispose of Unused Medicines

U.S. Food and Drug Administration

http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm101653.htm

• How to Store and Safeguard Prescription Medicine

http://www.safeguardmymeds.org



Helpful resources (continued)

• Partners Against Pain

Features a caregiver corner and tools for patients to track and understand pain http://www.partnersagainstpain.com

• Free and confidential information for individuals and family members facing substance abuse and mental health issues

Substance Abuse and Mental Health Services Administration Available in English and Spanish, and open 24 hours a day, 7 days a week https://findtreatment.samhsa.gov or call 1-800-662-HELP (4357)

• Fibroguide

The Regents of the University of Michigan
A guide to nonpharmacological therapy for fibromyalgia that was tested in a clinical trial
Contains a module on sleep and a sleep worksheet
http://www.fibroguide.com

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National Institutes of Health. Pathways to Prevention Workshop: The Role of Opioids in the Treatment of Chronic Pain Final Report. (2014).

² Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016; 65:1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1

³ Gottschalk A. New concepts in acute pain therapy: preemptive analgesia. Am Fam Physician. 2001; 63: 1979-1984.

⁴ Fishman S, Ballantyne J, Rathmell JP, et al. Bonica's management of pain 4th ed. Lippincott, Williams & Wilkins. (2010).

 $^{^{5}}$ The Interagency Pain Research Coordinating Committee. National Pain Strategy. (2016).

 $^{^{\}rm 6}$ Rosenquist EK. Overview of the treatment of chronic pain. UpToDate. (2015).

⁷ DEA Strategic Intelligence Section. 2015 National Drug Threat Assessment Summary. U.S. Department of Justice Drug Enforcement Administration. October 2015.

⁸ The Official Disability Guidelines. Work loss data institute. 2016.