

Understanding Different Types of Pain

Introduction

Pain is an uncomfortable signal that something hurts. Pain intensity may vary between mild to unbearable and can significantly impact an individual's psychosocial, emotional, and physical functioning (National Institute of Health, 2023).

Types of Pain (Hinkle, 2021; Bickley et al., 2021, National Institute of Health, 2023)

Pain can be categorized both by how long it lasts and by its pathology or cause.

Duration

- **Acute pain:** the typical physiologic response to an adverse chemical, thermal, or mechanical stimulus that usually lasts less than 6 months. It is caused by an injury, disease, or inflammation and commonly involves tissue damage (i.e., surgery, trauma, burn, or venipuncture). Acute pain symptoms may last hours, days, or weeks but typically resolve when the tissue heals. However, acute pain can become chronic.
- **Chronic pain:** persists longer than 3 months after the injury heals or condition resolves; can be intermittent or continuous; and may be aggravated by environmental and psychological factors. Chronic pain is subcategorized by the International Association for the Study of Pain (IASP) into the following:
 - Chronic Primary pain
 - Chronic cancer-associated pain
 - Chronic post-traumatic and postsurgical pain
 - Chronic neuropathic pain (see below)
 - Chronic viscera pain
 - Chronic musculoskeletal pain
- **Episodic pain:** occurs intermittently and irregular intervals; can be associated with chronic medical conditions (i.e., migraines); can occur spontaneously or provoked by known triggers.

Pathology

- **Nociceptive pain** is the typical physiologic perception of tissue injury.
 - **Somatic:** linked to injury of the skin, bone, joint, muscle, or connective tissue. This pain is often described by patients as dull, pressing, throbbing, or spasmodic and is well localized. Examples include surgical, trauma, wound, and burn pain; cancer pain (tumor growth); labor pain; osteoarthritis and rheumatoid arthritis pain; osteoporosis pain; and ankylosing spondylitis.
 - **Visceral:** linked to visceral organs such as the gastrointestinal tract and pancreas. It may arise from a tumor in the organ that causes aching and well-localized pain or by obstruction in a hollow organ which causes intermittent cramping and poorly localized pain. Examples include organ-involved cancer pain, ulcerative colitis, irritable bowel syndrome, Crohn's disease, and pancreatitis.

- **Neuropathic (pathophysiologic) pain** is an abnormal processing of sensory input by the nervous system. This pain may persist long after the initial injury has healed. Patients may describe this pain as an “electric shock,” stabbing, burning, or “pins and needles.”
 - **Centrally generated pain**
 - **Deafferentation pain** is caused by injury to either the peripheral or central nervous system. Examples include phantom pain due to peripheral nerve damage, post-stroke pain, or pain following spinal cord injury.
 - **Sympathetically maintained pain** is caused by a dysregulation of the autonomic nervous system. The most common example is complex regional pain syndrome, which develops as a disproportionate consequence of an extremity trauma without any nerve lesion (Wasner & Baron, 2007).
 - **Peripherally generated pain**
 - **Painful polyneuropathies:** pain experienced along the peripheral nerves. Examples include diabetic neuropathy; postherpetic neuralgia; alcohol-nutritional neuropathy; some types of neck, shoulder, and back pain; and pain associated with Guillain-Barré syndrome.
 - **Painful mononeuropathies:** associated with peripheral nerve injury, the pain is felt along the damaged nerve. Examples include nerve root compression, nerve entrapment, trigeminal neuralgia, and some forms of neck, shoulder, and back pain.
- **Mixed Pain:** includes components of both nociceptive and neuropathic pain.
 - Examples include fibromyalgia; some types of neck, shoulder, and back pain; some forms of headache; pain associated with HIV; myofascial pain; and pain associated with Lyme disease.

For information on how to assess pain, see NursingCenter’s [Pain Assessment Pocket Card](#).

References

Bickley, L. S., Szilagy, P. G., Hoffman, R. M., & Soriano, R. P. (2023). *Bate’s Guide to Physical Examination and History Taking* (13th ed.). Wolters Kluwer Health: Philadelphia.

Hinkle, J. (2021). *Brunner & Suddarth’s Textbook of Medical-Surgical Nursing* (15th ed.). Wolters Kluwer Health. <https://wolterskluwer.vitalsource.com/books/9781975161057>

National Institute of Health (2023, March 3). What is Pain? *National Institute of Neurological Disorders and Stroke*. <https://www.ninds.nih.gov/health-information/disorders/pain>

Wasner, G., Baron, R. (2007). Sympathetically Maintained Pain in CRPS I, Human Experimentation. In: Schmidt, R., Willis, W. (eds) *Encyclopedia of Pain*. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-29805-2_4336