

Pain Syndromes

The most common and best understood type of pain is acute pain. Acute pain will result when tissue is injured by trauma, surgery, illness, or infection. This type of pain is generally understood and expected. It is typically sharp, shooting, aching, or burning, and it decreases as the tissue heals and the body recovers. This is pain that is “talking to you” and telling you that something is wrong.

Unfortunately, there are problems that can occur that cause the pain to continue even after the tissue has healed. When a particular pain outlasts the normal healing process, it is categorized as chronic pain. Chronic pain symptoms can be caused by a variety of abnormalities in the nervous system. It can be complex, and it is often disabling. Chronic pain can greatly affect a person’s work, personal relationships and self-esteem. The determination of a specific and accurate diagnosis is mandatory for proper treatment.

The following list of pain problems and syndromes is not totally inclusive of all specific problems, but is a guide to some of the major diagnoses which are treated at Consultants in Pain Medicine.

Acute Neck and Back Pain with or without arm or leg pain

The sudden onset of pain in the neck or back can occur after an injury or can appear without a known problem. If pain is only in the tissues around the spine and does not radiate into the limb, it is less likely to involve pressure on the nerve roots. If pain is radiating into the limb, then this is more likely to involve pressure on the nerve. The etiology could be strain or tearing of the supporting tissues with intense muscle spasm, a herniation of the disc between the vertebrae, or a fracture of the bony structure of the spine. Initial care will include rest, pain medications, muscle relaxants, and possible epidural steroid injections, with trigger point injections for muscle spasm. The early use of physical therapy is important in many cases.

Chronic Neck and Back Pain with or without arm or leg pain

Chronic pain in the neck or back might result from the same sources as noted in acute neck or back pain. However, many times the pain may originate from injury to the nerve tissues from chronic degeneration of the spine, or may continue after surgery. Appropriate evaluation might reveal the pain source, and allow specific treatment. The anatomical reasons for pain need to be differentiated from the pain caused by nerve injury which is also known as neuropathic pain.

Complex Regional Pain Syndrome (CRPS)

Complex Regional Pain Syndrome, previously known as causalgia or Reflex Sympathetic Dystrophy (RSD), is caused by abnormal activity in the sympathetic nervous system. This syndrome most often results from an injury or surgery to an extremity, particularly the hand or foot. As the injury or surgery heals, the pain persists, intensifies, and can spread. The skin around the affected area can change color and be cold to touch. It is typically a burning, itching kind of pain, and almost any stimulus to the affected area is painful. There can also be changes to hair and nail growth patterns. It is usually treated first with medications and physical therapy. If these treatments do not bring relief, the next step may be a nerve block. A treatment option for

refractory pain includes spinal cord stimulation, i.e. placing electrical stimulators in the spinal canal to send tingling sensations into the painful extremity. If you believe you are suffering from complex regional pain syndrome, see your doctor for a full evaluation and possible referral to a pain specialist. The earlier Complex Regional Pain Syndrome is identified and treated, the better the response to treatment.

Acute Herpes Zoster (Shingles)

Herpes Zoster (commonly called “Shingles”) results from reactivation of the varicella-zoster virus (VZV), the same virus that causes chicken pox in children. Herpes Zoster begins as a severely painful rash in adults when the latent virus that hibernates in spinal or cranial sensory nerve ganglia reactivates. The shingles begin as a burning sensation that follows the path of one or more spinal nerves under the skin. The rash evolves into reddened, fluid-filled blisters, and the patient may experience flu-like symptoms and anxiety. The blisters eventually become cloudy, sometimes bleed, and then crust over within 7-10 days. Once healed, scarring and changes in skin color may remain. While shingles can erupt on almost any part of the body, the most common areas are the torso and the face.

Shingles pain may start several days before the rash appears, often preceded by a prodrome of burning pain, itching or sensitivity of the affected area. For most patients, the pain of Shingles gradually disappears over several weeks or months. Most patients will have no pain or just a small amount of pain one year after the eruption of the rash.

While medications do not cure Zoster infections, they have been found to help shorten the duration and discomfort of the outbreak.

Post Herpetic Neuralgia

If the pain from Shingles does not go away, it is called Post Herpetic Neuralgia (PHN). Overall, only a small number of people with a Shingles outbreak develop PHN. However, people over the age of 50 have a much higher incidence of persistent pain. Sympathetic nerve blocks should be considered part of early treatment to help prevent PHN. Antiviral medications have been found to help reduce or prevent the occurrence of Post Herpetic Neuralgia pain.

Neuropathic Pain Syndromes

Some individuals may suffer from prolonged pain that persists for months or years after an injury, or they may experience pain without any obvious injury at all. This pain condition is usually neuropathic in nature. Neuropathic pain results from a nervous system malfunction set off by nerve damage that may be caused from diseases such as diabetes, trauma or medications—especially chemotherapy and HIV drugs. Rather than the nervous system functioning properly to signal the presence of tissue injury, with Neuropathic Pain the nerves themselves are malfunctioning and become the cause of the pain.

Neuropathic Pain can lead to serious disability. Some patients experience a burning that makes wearing clothes and walking unbearable. This syndrome responds poorly to standard pain treatment and may get worse instead of better over time (especially without appropriate treatment).

Cancer Pain

Most of the pain with cancer patients is from the cancer itself as it spreads to organs, bone or nerves. In addition, cancer treatments themselves can cause pain. In either case, the pain

associated with cancer can be relieved with medicine and other treatments.

Taking care of pain is important to the quality of life for cancer patients and should be a part of good cancer care. Pain relief will help cancer patients feel stronger and better able to cope with their disease and its treatments.

Myofascial Pain Syndrome (MFPS)

This typically refers to localized and sometimes diffuse pain in the body due to skeletal muscle injury or strain. Muscle strains and injuries can lead to muscle spasm that restricts localized blood flow and thus oxygen delivery to the injured area. This can lead to release of inflammatory chemicals in the tissues which can sustain any localized muscle spasm. These spasmed areas (“trigger points”) can actually be felt under the skin as well circumscribed painful areas. These trigger points can refer pain outside of their localized areas. Typical treatment involves anti-inflammatory medications, physical therapy and active stretching of the painful areas. Sometimes localized injections into the painful areas are required. Often times, myofascial pain is secondary to some other primary problem restricting a person’s motion.

Headache — Tension Type

The tension headache is the most common form of headache. The pain is usually mild and can be alleviated by over the counter pain medications (acetaminophen or ibuprofen). In contrast to migraine, a tension headache occurs on both sides of the head at the same time. Onset is slow and its duration varies, but it usually lasts less than a day. Because tension headaches are so common and readily respond to pain relievers, it is rare for people to seek medical help.

Headache — Migraine

During a migraine attack, changes in brain activity produce inflamed blood vessels and nerves around the brain causing a pulsating, throbbing pain. Sufferers may also experience nausea and/or vomiting and sensitivity to sound, light, or odors. Migraine is episodic, and often one-sided, occurring in the temple or forehead, behind the eye, or in the back of the head. The headache pain can last from a few hours to a few days and is often disabling. Not all severe headaches are migraines and not all migraines are severe.

The tendency to have migraine headache is genetic and may involve serotonin, a brain chemical involved in the transmission of nerve impulses. During the attack the pain may migrate from one part of the head to another, and may radiate down the neck into the shoulder. A majority of patients also experience scalp tenderness during or after an attack.

Headache — Cluster

Cluster headaches are readily distinguishable from migraines even though they are one-sided and severe, as migraines often are. Cluster headache is an attack of excruciating, burning pain in an eye socket and/ or surrounding area, lasting 15-180 minutes, recurring from once every other day to 8 times per day, whereas migraines persist from 4 to 72 hours. Characteristic symptoms occur on the affected side of the face: reddened eye, excessive tears, congested nostrils, drooping eyelid, smaller pupil size, and facial sweating. While people with migraines will often shun movement, those experiencing a cluster attack do not usually remain still, but instead rock or pace because of the intense pain. This is the single headache more common in men than women, typically occurring in middle age men.

Cluster headaches can be episodic or chronic. In episodic cluster headache, there are long pain-

free remissions. A series of attacks may last for weeks or months separated by remissions lasting for months or years— hence the name cluster headache. Cluster headaches are classified as chronic when a person has no more than one week without an attack during the period of a year. Only 10-20% of cluster headache sufferers have the chronic type.

Headache — Cervicogenic

Cervicogenic headache is generally due to a neck injury. Pain is caused by damaged neck joints, ligaments, muscles, or cervical discs, all of which have complex nerve endings. When these neck structures are injured, the nerve endings send pain signals to the brain, sometimes intermingling with the nerve fibers of the trigeminal nerve, which is responsible for the perception of head pain. Therefore, many patients with cervicogenic headache have the symptoms of tension headache, and some may have the symptoms of migraine and cluster headache.

Failed Back Surgery Syndrome

Failed back surgery syndrome (FBSS) is when back pain and/ or leg pain recurs or persists following an otherwise successful back surgery. Following initial trauma to the nerves (as in a disc herniation), repair and regeneration can sometimes result in abnormal signal transmissions, interpreted in the brain as pain (see neuropathic pain). Abnormal regeneration of the nerves in the affected area following back surgery may explain why repeated surgery for disc herniations sometimes fails to relieve the pain.

Chronic Pelvic Pain

Chronic Pelvic Pain (CPP) is one of the most common pain problems affecting women. Pelvic pain that lasts for at least 6 months or more is considered chronic. It may be a steady pain or a pain that comes and goes with the menstrual cycle. The pain may start with a physical problem that heals or seems to disappear, but the pain continues because of changes in the nervous system, muscles, or other tissues. Over time, the pain can affect the muscles of the abdomen, pelvis, urinary tract, and bowels, leading to changes in bowel and bladder function. The area's connective tissue, and the skin of the pelvic area may also become painful. The persistent pain can cause limited mobility, depression, and emotional problems. Causes can include, but are not limited to, endometriosis, pelvic congestion syndrome, muscle spasm and cystitis.

Facial Pain

Atypical Facial Pain (ATFP) is a chronic pain syndrome that encompasses a wide group of facial pain problems. ATFP can have many different causes but the symptoms are all similar: a burning, pinching, pulling, aching or cramping that occurs on one side of the face, often in the region of the trigeminal nerve. It can extend into the upper neck or back of the scalp. Facial pain is ongoing for ATFP patients, with few, if any periods of remission and may be an early stage of trigeminal neuralgia.

Spasticity

Spasticity is a neurological condition that causes an abnormal increase in muscle tone, most often occurring when the nerve pathways regulating muscles are damaged. Spasticity is a common complication of cerebral palsy, spinal cord injury, multiple sclerosis, stroke, and traumatic brain injuries, such as from lack of oxygen, physical trauma, hemorrhage, or infection. Resistant to the normal stretching that occurs during use, spastic muscles may remain abnormally

contracted for long periods. Spasticity can lead to incoordination, loss of function, permanent muscle shortening (contracture), and rapid, repetitive muscle spasm. It can be also be painful, as it may pull joints into abnormal positions and prevent full range of motion.

Persistent Post Surgical Pain

This is pain that persists beyond the normal healing period not due to infection or any continuing surgical problem. Typically this is due to prolonged avoidance of normal body motions causing secondary muscle shortening and spasm. It can also be due to the normal potential trauma of nerves that can occur with many surgeries—”neuropathic pain”

Occipital Neuralgia

Occipital neuralgia is a chronic pain disorder caused by irritation or injury to the occipital nerve located in the back of the scalp. Individuals with the disorder experience pain originating at the nape of the neck. The pain, often described as throbbing and migraine-like, spreads up and around the forehead and scalp. Occipital neuralgia can result from physical stress, trauma, or repeated contraction of the muscles of the neck.

Interstitial Cystitis

Interstitial Cystitis is chronic inflammation of the bladder. The cause of this condition is unknown, and it occurs more commonly in women. Symptoms include painful urination, difficulty in urinating, urinary urgency and increased urination frequency.

Trigeminal Neuralgia

Trigeminal Neuralgia (TN), also called “tic duloceaux,” is one of the most intense pain syndromes, typically diagnosed in adults after age 50. It may be caused by compressive blood vessels, tumors and vascular malformations, which result in an electric shock-like pain in the areas of the face where the branches of the nerve are distributed – lips, eyes, nose, scalp, forehead, upper jaw, and lower jaw. The episode lasts only a few seconds, but the pain experienced can be excruciating. The disorder most often affects only one side of the face, but some patients experience pain on both sides at different times.

Fibromyalgia

Fibromyalgia is a chronic pain syndrome characterized by widespread musculoskeletal pain, multiple tender points, and fatigue. “Tender points” refers to tenderness that is found in precise areas, particularly in the neck, spine, shoulders, and hips. A person is considered to have fibromyalgia if they have widespread pain in combination with tenderness in at least 11 of 18 specific tender point sites, with these symptoms persisting for more than 3 months. People with this disorder may also experience other symptoms including sleep disturbances, morning stiffness, irritable bowel syndrome, and anxiety.

Most patients with fibromyalgia describe their pain as “aching all over,” as if their muscles have been pulled or overworked. Sometimes their muscles twitch and at other times they burn. The majority of sufferers (90%) are women, diagnosed in their twenties and thirties, but the disorder has been found in people of all ages. Changes in weather, cold drafts, hormonal fluctuations (premenstrual and menopausal states), stress, depression, anxiety and over-exertion can all aggravate the condition and cause symptom flare-ups. Diagnosis is made by history and physical

exam with your doctor. There is no blood test to diagnose fibromyalgia, but blood tests can be expected to rule out other causes of diffuse musculoskeletal pain.