

Headaches

Headache Overview

A comprehensive headache classification guide was established by the International Headache Society and includes more than 150 diagnostic headache categories.

A practical headache classification includes primary and secondary headaches.

Primary Headaches - those that are not the result of another medical condition. Include tension, migraine, mixed headache syndrome and cluster headaches.

- **Tension headaches** : the most common type of primary headaches, accounting for about 90% of all headaches diagnosed. Tension headaches are also called chronic daily headaches or chronic non-progressive headaches. These muscle contraction headaches cause mild to moderate pain and come and go over a prolonged period of time.
- **Migraines** : the second most common type of primary headaches. The exact cause of migraines is unknown, although they are neurovascular in nature and are related to changes in the brain as well as inherited abnormalities in certain areas of the brain. Migraine pain is moderate to severe, often described as pounding, throbbing pain. Migraines are associated with symptoms such as sensitivity to light, noise or odors; nausea or vomiting; loss of appetite; and stomach upset or abdominal pain.
- **Mixed headache syndrome** : the combination of migraine and tension headaches.
- **Cluster headaches** : the least common, but most severe, type of primary headache. The pain of a cluster headache is intense and may be described as having a burning or piercing quality that is throbbing or constant. The pain is located behind one eye or in the eye region, without changing sides. Cluster headaches occur one to three times per day during a cluster period, which may last 2 weeks to 3 months. The headaches may disappear completely (go into "remission") for months or years, only to recur.

Secondary headaches - those that result from another medical condition, include sinus headaches, hormone headaches, chronic progressive headaches or headaches that occur as a result of a head injury, trauma, or more serious condition such as a tumor.

- **Sinus headaches** – headaches associated with a deep and constant pain in the cheekbones, forehead, or bridge of the nose. The pain usually intensifies with sudden head movement or straining and usually occurs with other sinus symptoms, such as nasal discharge, feeling of fullness in the ears, fever, and facial swelling.
- **Hormone headaches** – headaches in women are often associated with changing hormone levels that occur during menstruation, pregnancy, and menopause.
- **Chronic progressive headaches** : headaches that get worse and happen more often over time. Chronic progressive headaches are also called traction or inflammatory headaches. These are the least common type of headache, accounting for less than 5% of all headaches. Chronic progressive headaches may be the result of an illness or disorder of the brain or skull.

Headache Causes

Headache pain results from signals interacting among the brain, blood vessels and surrounding nerves. During a headache, specific nerves of the blood vessels and head muscles are activated and send pain signals to the brain. It's not clear, however, why these signals are activated in the first place.

There is a migraine "pain center" or generator in the mid-brain area. A migraine begins when hyperactive nerve cells send out impulses to the blood vessels, causing constriction, followed by the dilation of these vessels and the release of prostaglandins, serotonin and other inflammatory substances that cause the pulsation to be painful. Serotonin is a naturally occurring chemical essential for certain body processes.

Headaches that occur suddenly are usually caused by an illness, infection, cold or fever. Other conditions that can cause a sudden headache include sinusitis, pharyngitis (inflammation or infection of the throat), or ear infection or inflammation.

In some cases, the headaches may be the result of a blow to the head (trauma) or, rarely, a sign of a more serious medical condition.

Common causes of tension headaches or chronic daily headaches include emotional stress related to family and friends, work or school; alcohol use; skipping meals; changes in sleep patterns; excessive medication use; tension; and depression. Other causes of tension headaches include eye strain and neck or back strain caused by poor posture.

When chronic headaches become progressive and occur along with other neurological symptoms, they can be the sign of a disease process in the brain (organic cause), such as:

- Hydrocephalus (abnormal buildup of fluid in the brain)
- Infection of the brain
- Meningitis (an infection or inflammation of the membrane that covers the brain and spinal cord)
- Encephalitis (inflammation of the brain)
- Hemorrhage (bleeding within the brain)
- Tumor
- Blood clots
- Head trauma
- Abscess
- Toxins (overexposure to chemicals from certain medications, such as selective serotonin-reuptake inhibitors Prozac or Zoloft)

Diagnosing Headaches

The physician should perform a complete physical examination and a headache evaluation. During the headache evaluation, your headache history and description of the headaches will be evaluated. You will be asked to describe your headache symptoms and characteristics as completely as possible.

A headache evaluation may include a CT scan or MRI if a structural disorder of the central nervous system is suspected.

If your headache symptoms become worse or become more frequent despite treatment, ask your family physician for a referral to a specialist. We at Mind and Body Pain Clinic can help provide a comprehensive treatment plan with Dr. Singh's expertise and training as a Neurologist and an Interventional Pain Specialist.

Headache Treatments

The proper treatment will depend on several factors, including the type and frequency of the headache and its cause. Treatment may include education, counseling, stress management, biofeedback, and medications. The treatment prescribed for you will be tailored to meet your specific needs.

- **Headache education** includes identifying and recording what triggers your headache, such as lack of sleep, not eating at regular times, eating certain foods or additives, caffeine, environment, or stress.
- **Counseling** in the form of one-on-one sessions, group therapy, or support groups can help you identify your headache triggers and teach you useful coping techniques.
- **Stress management:** to successfully treat headaches, it is important for you to identify what causes or triggers the headaches. Then you can learn ways to cope or remove the stressful activities or events. Relaxation techniques are helpful in managing stress and include deep breathing exercises, progressive muscle relaxation, mental imagery relaxation, or relaxation to music.
- **Biofeedback** : biofeedback equipment includes sensors connected to your body to monitor your involuntary physical responses to headaches, such as breathing, pulse, heart rate, temperature, muscle tension, and brain activity. By learning to recognize these physical reactions and how the body responds in stressful situations, biofeedback can help you learn how to release and control tension that causes headaches.
- **Medications** : There are three types of headache medications, including symptomatic relief, abortive, and preventive medications.

PROCEDURES FOR HEAD AND NECK PAIN

These are typical procedure performed by a pain specialist for head and neck pain depending on the cause.

Cervical Epidural Steroid Injections

Cervical Facet Joint Injections

Medial Branch Blocks for Cervical Facets

Radio Frequency Ablation of Medial Branch Nerves

Greater occipital Nerve Blocks, Pulsed Radio Frequency

Third Occipital Nerve Blocks, Radiofrequency of TON.

Trigger point injections

Botox injections of trigger points

Sphenopalatine, Gasserian, Trigeminal ganglion blocks and neurolysis

Occipital Nerve Peripheral Stimulation- Trial and Implant of stimulator.

Intraarticular Temporomandibular joint injections, Botox Rx of Masseter muscles.