

Headache

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Introduction:

A headache is pain in the head or upper neck. Headaches can be primary (not associated with a medical condition) or secondary (caused by an injury or medical condition). Primary headaches include tension headaches, migraines, and cluster headaches. Most headaches are not indicative of a serious medical problem. However, you should seek medical attention if your headache is severe or unusual, doesn't respond to treatment and worsens over time, frequently recurs, or is accompanied by injury, seizures, vomiting, fever, or changes in speech, vision, or behavior. Your doctor may order a head MRI, head CT scan, or lumbar puncture to help diagnose and evaluate your condition. If your headache doesn't have a serious underlying cause, your doctor may try to identify headache "triggers," such as stress or certain foods, and recommend preventive medication, lifestyle changes, or pain relievers to manage your symptoms.

What is a Headache?

A headache is pain in the head or upper neck. The two major types are primary headaches (not associated with a medical condition or disease) and secondary headaches (caused by an injury or underlying illness such as a concussion, brain bleed, infection, or brain tumor). Primary headaches include tension headaches, migraines, and cluster headaches.

* **Tension Headaches:** Symptoms include pressure and a band-like tightness that begins in the back of the head and upper neck, gradually encircling the head.

* **Cluster Headaches:** Occur in groups or clusters over weeks or months, separated by headache-free periods of months or years. During a headache period, sufferers experience several episodes of pain daily, each lasting 30-90 minutes. These attacks, often at the same time of day, include sharp, penetrating pain around or behind one eye, watering of the eye, and a stuffy nose.

* **Migraine Headaches:** Cause intense, throbbing pain, often on one side of the head. Nausea, vomiting, and sensitivity to light, sound, and exertion are common. Migraines can last several hours or up to three days. Some sufferers experience a visual disturbance called an aura before the onset of a migraine (flashing lights, wavy lines, blurry vision, or blind spots).

Most headaches aren't indicative of a serious medical problem. Some people have occasional headaches that resolve quickly, while others experience frequent and debilitating pain. Seek medical attention if your headache:

- * Is severe ("worst headache ever")
- * Is different from usual headaches in location, severity, or accompanying symptoms (numbness, vision loss).
- * Starts suddenly or is aggravated by exertion.
- * Causes pain significant enough to wake you from sleep.
- * Doesn't respond to treatment and worsens over time.
- * Recurs frequently.
- * Is accompanied by: head injury (loss of consciousness), seizures, recurrent vomiting, dizziness, fever, stiff neck, changes in speech, vision, or behavior.

How are Headaches Diagnosed and Evaluated?

To diagnose the cause of headaches and rule out underlying medical conditions, physicians obtain a patient history and conduct a thorough neurological examination. Diagnostic testing may include:

* **Head CT scan:** Computed tomography (CT) scanning combines special x-ray equipment with sophisticated computers to produce multiple images of the inside of the body. Physicians use brain CT scans to detect bleeding from a ruptured or leaking aneurysm, stroke, brain tumors, and diseases or malformations of the skull. CT angiography (CTA) may also be performed.

Diagnostic Tests:

* **CT Angiography (CTA):** A contrast material may be injected intravenously, and images of the cerebral blood vessels are obtained. This is particularly useful if an aneurysm is suspected.

* **Head MRI:** Magnetic resonance imaging (MRI) uses a powerful magnetic field, radio frequency pulses, and a computer to produce detailed pictures of organs, soft tissues, bone, and other internal structures. Brain MRI is used to examine brain anatomy and diagnose tumors, developmental abnormalities, blood vessel problems (like aneurysms), eye and inner ear disorders, stroke, pituitary gland diseases, and certain chronic nervous system disorders (such as multiple sclerosis). A Chiari malformation, a congenital condition that can cause headaches, is easily diagnosed with MRI.

* **Lumbar Puncture (Spinal Tap):** A small amount of cerebrospinal fluid (surrounding the brain and spinal cord) is removed and analyzed from the lumbar region of the spinal column. This helps diagnose infections (meningitis, encephalitis), inflammatory conditions (Guillain-Barre syndrome, multiple sclerosis), bleeding around the brain (subarachnoid hemorrhage), and cancers involving the brain and spinal cord.

How are Headaches Treated?

Assuming no serious underlying condition is present, relatively simple treatment options can be considered. To treat symptoms and prevent headache frequency and severity (particularly migraines), physicians may:

- * Identify headache triggers (stress, certain foods).
- * Recommend preventive medications and treatments.
- * Recommend lifestyle changes (stress management, relaxation techniques).
- * Prescribe pain-relieving medication (acetaminophen or ibuprofen; children and adolescents should avoid aspirin due to the risk of Reye syndrome).

If your headache results from an underlying medical condition or injury, your physician will discuss appropriate treatment options.