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Categories of Headaches

Primary or benign headaches are not due to an organic underlying condition. However, these common headaches are legitimate biological disorders, not psychological conditions. Science is rapidly progressing to better understand the cause of primary headaches.

Tension-Type

Approximately 78% of adults experience a tension-type headache at some point in their lives. There appears to be a slightly higher prevalence of this type of headache among women, and more women than men seek treatment.

Tension-type headache, the most common form of headache, is a nonspecific headache, which is not vascular or migrainous, and is not related to organic disease. The underlying cause of tension-type headache is likely due to chemical and neuronal imbalances in the brain or muscle tightening in the back of the neck and/or scalp. The pain is pressing or tightening, of mild to moderate intensity, and occurs on both sides of the head. Some sufferers describe a band-like sensation around the neck and/or head which is a "vice-like" ache located in the forehead, temples or the back of the head and/or neck. The pain is not aggravated by routine physical activity. Rarely are there associated symptoms such as nausea or sensitivity to light or noise.

Tension-type headache is divided into 3 categories, based on the frequency of attacks.

Episodic

Episodic tension-type headache occurs less than once per month and is usually triggered by temporary stress, anxiety, fatigue or anger. It is what most of us consider a "stress headache." It may disappear with the use of over-the-counter analgesics, withdrawal from the source of stress or a relatively brief period of relaxation.

For this type of headache, over-the-counter drugs of choice are aspirin, acetaminophen, ibuprofen or naproxen sodium. Combination products with caffeine can enhance the action of the analgesics.

Frequent

Occurring 1-15 days per month, this type of headache often co-exists with migraine. Sufferers should be cautious to avoid overusing analgesics due to the high frequency of this headache type.

Chronic

Chronic tension-type headache occurs 15 or more days per month and evolves over time from episodic headache. It is often a daily or continuous headache, which may have some variability in the intensity of the pain during a 24-hour cycle. If a sufferer is taking pain medication daily or almost daily and is receiving little or no relief from the pain, then a physician should be seen for diagnosis and treatment.

Chronic daily tension-type headache is often associated with depression or other emotional problems. Changes in sleep patterns or insomnia, early morning or late day occurrence of

headache, feelings of guilt, weight loss, dizziness, poor concentration, ongoing fatigue and nausea commonly occur. Sufferers usually awaken in the morning with the headache and frequently have an accompanying sleep disorder. One should seek professional diagnosis for proper treatment if these symptoms exist.

This type of headache should be treated preventively to avoid becoming dependent on pain-relieving drugs. The primary drug of choice for chronic tension-type headache is amitriptyline or some of the other tricyclic antidepressants taken daily. Antidepressant drugs have analgesic actions, which can provide relief for headache sufferers even if the patient is not depressed. Biofeedback techniques can also be helpful in treating tension-type headaches. For the patient with chronic tension-type headaches, habituating analgesics must be strictly avoided.

TMJ

TMJ refers to disorders of the temporo-mandibular (jaw) joint. This is an important subset of tension headaches in which the pain is produced by inflammation of the jaw joint as well as by tension and spasms in the muscles which surround and move the jaw. This condition has been called the "great imposter" due its ability to mimic many other causes of pain. Though there is usually an organic basis stemming from the alignment or occlusion of the teeth, the prime cause is behavioral, the result of clenching or grinding the teeth. Sufferers concentrate their tensions on the teeth and often clench during the day and/or grind at night.

Episodic relief comes from anti-inflammatory drugs such as Ibuprofen, soft diet and local massage, heat or ice to tense muscles. Dentists can often find evidence of excess wear in the enamel of the molar teeth and may prescribe therapy to restore the bite to normal occlusion. Long term resolution depends on a stress management program to take the tension off the teeth and jaw muscles.

Migraine

More than just a "bad headache," migraine pain and associated symptoms affect 29.5 million Americans, equivalent to 13% of the population, and one in every four U.S. households has a migraine sufferer.

Migraine is characterized by throbbing head pain, usually located on one side of the head, often accompanied by nausea and sensitivity to light and sound. The combination of disabling pain and associated symptoms often prevents sufferers from performing daily activities. Symptoms, incidence and severity vary by individual. Attacks can last anywhere from four to 72 hours and tend to occur in three phases: pre-headache, the headache itself, and post-headache. The pre-headache and post-headache phases can last for hours to days with symptoms such as muscle tenderness, fatigue and mood changes.

Less than one-third of sufferers experience what is known as "aura." They may see light flashes, blind spots, zigzag lines, and shimmering lights or experience numbness and tingling in the arm and face prior to the head pain and other symptoms. Aura symptoms last less than one hour and typically resolve before the head pain begins. Aura may occur with some, but not all attacks.

Migraine afflicts both women and men, although three times more women experience migraine. Peak prevalence for migraine is between 20 - 45 years old for both genders. Migraine is often hereditary. Onset can occur in childhood. If both parents have them, there is a 75 percent chance their children will have them; when only one parent is a migraine

sufferer, there is a 50 percent chance the child will be afflicted. If even a distant relative has migraine headaches, a 20 percent chance exists that any offspring will be prone to migraine headaches.

Many things may trigger a migraine. Triggers are not the same for everyone and what causes a migraine in one person may relieve it in another. Triggers may be cumulative – with exposure to multiple triggers migraine may be more likely to occur. Triggers may include one or more of the following categories: diet, activity, environment, emotions, medications and hormones.

While there are no definite answers to the causes of migraine, healthcare professionals are gaining an understanding of what happens when a migraine attack is in progress. Current theory suggests that migraines are triggered from within the brain itself. Once an attack begins, the pain and other symptoms of migraine arise from an inflammatory process resulting from an interaction between the trigeminal nerve and blood vessels in the coverings of the brain. Serotonin (or 5-hydroxytryptamine or 5-HT), a naturally occurring chemical in the brain, has been implicated in this inflammatory process.

Pain signals are sent from the blood vessels along the trigeminal nerve into the brainstem. Here, pain processing centers can become sensitized or overloaded by the incoming pain signals and begin to spontaneously fire. This can result in skin sensitivity on the head/scalp. Patients may note that “my hair hurts,” or that they have to take off glasses or jewelry during a migraine.

Once these symptoms occur, medication may not be as effective as it would be if taken earlier in the attack. Repeated pain signaling over time may be responsible for chronic (daily) migraine. Migraine sufferers may experience a variety of headache presentations including sinus pain, neck tension, menstrual migraine or have aura without headache. Most migraine occurs episodically; however, 10 million Americans have chronic headache (15 or more days per month). Many of these people experienced episodic migraine that evolved over time to chronic migraine.

Migraine can be effectively managed. With the help of a healthcare provider, patients can identify and alleviate their symptoms with an appropriate treatment regimen. Medications generally fall into two categories:

- **Preventive** - Taken on a daily basis, preventive medications can help reduce the number of attacks in patients who experience more than two migraines per month.
- **Abortive** - Abortive therapy treats the symptoms of migraine after the attack begins. Many medications available to treat an acute attack must be taken as soon as the attack occurs, otherwise they may be less effective.
- **Nondrug** treatments can be effective, especially when used in conjunction with medication. Strategies include relaxation techniques, proper sleep and diet habits, exercise, and avoidance of behaviors or situations that may trigger an attack. Biofeedback has also been used successfully, as have acupuncture, massage, and simple heat and cold applications.

Cluster

There are an estimated one million cluster headache sufferers in the United States; about 90 percent of the sufferers are male. Cluster is one of the least common types of headache,

and the cause is unknown. Similar to migraine, the pain is related to the inflammatory process resulting from an interaction between the trigeminal nerve and blood vessels in the coverings of the brain. Abnormalities in the hypothalamus, a deep area of the brain that controls circadian rhythms, may be responsible for the pattern of cluster headaches.

Cluster headache refers to the characteristic grouping or clustering of attacks. Cluster headaches may also be known as histamine headache, red migraine, Horton's headache, cephalalgia or sphenopalatine neuralgia. The headache periods can last several weeks or months, and then disappear completely for months or years, leaving considerable amounts of pain-free intervals between series. Sufferers are generally affected in the spring or autumn, and, due to their seasonal nature, cluster headaches are often mistakenly associated with allergies or business stress.

Cluster headache starts suddenly, and a minimal warning of the oncoming headache may occur, including a feeling of discomfort or a mild one-sided burning sensation. The pain is of short duration, generally 30 to 45 minutes. However, the headache may last anywhere from a few minutes to several hours and will disappear only to recur later that day. Most sufferers get one to four headaches per day during a cluster period. They occur regularly, generally at the same times of the day, often awakening the sufferer during the night.

With typical cluster headaches, the pain is almost always one-sided and remains on the same side during a series, but pain can occur on the opposite side when a new series starts. Usually pain is localized behind the eye or in the eye region and may radiate on the same side to the face or neck. The affected eye may become swollen or droop and the pupil may contract. The nostril on the affected side is often congested and nasal discharge and tearing of the eye is on the same side as the pain. Sufferers may also experience excessive sweating, and the face may become flushed on the affected side.

Cluster sufferers report that even small amounts of alcohol will precipitate an attack during a cluster cycle but not during cluster-free times. Few other triggers have been identified. About 20% of cluster sufferers' attacks are chronic, occurring throughout the year, thus making the control of these headaches more difficult. Because chronic cluster headache periods are continuous, the patients do not respond to conventional forms of cluster therapy.

The patient with cluster headaches should be started on preventive therapy as early as possible in the cycle in order to curtail the length of the cluster period and decrease the severity of the headaches. Because of the brief duration of an acute cluster attack, the abortive treatment of these headaches is difficult. Oxygen inhalation by facial mask has been successful in aborting an acute cluster headache. Sumatriptan injection is also effective. Prescription preventive medications can include corticosteroids, verapamil, lithium and neuromodulators such as topiramate and divalproex sodium.

Histamine desensitization and surgical intervention may be considered for chronic cluster headache patients who have not responded to other forms of standard therapy.

Secondary Headaches - Organically Caused

An organically caused headache is not a disease itself; rather it is a symptom of another disease or disorder. Organically caused headaches are evidence of tumors, infection, high blood pressure, diseases of the brain, eye, ear and nose, blood clots, and aneurysms to name a few. These conditions can be life-threatening, so immediate evaluation by a doctor is recommended. Fortunately, these types of headache are **less common** than primary headaches.

Some signs that the headache is related to a serious disorder include change in headache pattern; headache associated with a medical problem or neurological symptoms such as focal weakness, loss of consciousness or confusion; pain that becomes progressively more severe or is the 'worst' headache ever experienced; or the individual is using prescription or over-the-counter pain relievers every day.

More information on headaches is available from:

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