

## **Headaches can be a pain! Here's a review of what causes them and how to get relief**

Many folks will come in to the office complaining of “migraine”; they have a bad headache so it must be a migraine right?

Wrong!

Headaches can come from a variety of causes. It's essential to understand the *cause* of the headache if attempts at relief are to be successfully on target. The most common causes of headache are Tension (often mistaken for “sinus”), Migraine, Inflammatory and Cluster headache. Drug reactions including intoxication and withdrawal can cause headache. Many folks can relate to a caffeine withdrawal headache or the “hangover” from alcohol use.

Several clinical studies have estimated that approximately seventy percent of patients with chronic daily headaches suffer from drug-induced headaches.

Inflammatory headache includes sinus infections, meningitis (inflammation of the tissues surrounding and protecting the brain, may be caused by bacteria, viruses and fungi), temporal arteritis or inflammation of the temporal artery—a potential cause of blindness in older people. Even tension headaches have an inflammatory component.

Encephalitis is inflammation of the brain tissue itself, interestingly it doesn't typically cause pain as much as it causes altered brain function including level of consciousness, memory, ability to think etc.

Bleeding within the brain also causes headache as well as often mental status and other changes that appear as a stroke. The typical history is “thunderclap sudden onset of the worst headache of my life”. These headaches are true emergencies. After a CT Scan is done, the next step is a lumbar puncture or spinal tap looking for blood in the cerebrospinal fluid (CSF)

The best cure for an inflammatory headache is to prevent it if possible. If it's already established, therapy with anti-inflammatory medications can help. Infection requires appropriate therapy as well obviously.

Cluster headache is another type of headache. Typically these headaches “cluster”, they occur often daily at about the same time each day for a period of time. The pain is described as being like a spear poking through the eye, the nose runs and eye waters on the side of the pain, it's abrupt sudden onset and end are classic diagnostic hallmarks.

Breathing pure oxygen typically will rapidly resolve these headaches. Triptans are another class of drug that can help these headaches.

Tension headache is generally caused by muscle spasm in the neck/base of the skull area. The paired greater & lesser occipital nerves arise from there and course within the scalp to the front of the head causing pain along the front and sides of the head which most patients refer to as “sinus”. Tapping on the sinuses is a good way to differentiate what's going on; sinus inflammation will cause pain and tenderness when tapped. On the other hand, pressure at the base of the skull on the muscles at the top of the neck in the back will cause tenderness, helping to make the diagnosis. Spinal manipulation, injections of a local anesthetic, possibly with an anti-inflammatory steroid into tender trigger points can rapidly relieve the headaches, sometimes for a prolonged time. Anti-inflammatory medications taken by mouth can also help as can muscle relaxants which help reduce muscle spasm at the base of the skull/top of the neck. . Opiates are usually not needed for

these headaches but at times they may be required for refractory cases. I like the combination of medications found in Excedrin Migraine Formula (and as a cheapskate, I look at the ingredients on the package and see if there's a generic/store-brand on the shelf with the same components at less price).

Migraine headache is yet another distinct type of headache. The cause of migraine is still not completely understood. We know that changes occur in the blood vessels diameter, initially narrowing then widening when the headache starts. There are changes in brain activity and in the neurotransmitters that carry information from one nerve cell to the next. Medications have been developed that affect various of these abnormalities with successful resolution of the pain. Pain is not the only characteristic of the migraine headache. Classic migraine typically is preceded by a characteristic aura. The patient may note a particular smell sensation or other hallucination that isn't really present. The headache generally comes after the aura. Common migraine does not have the aura. Other characteristic symptoms that define migraine are visual changes such as flashing lights, shimmering images, visual distortions. Nausea and often vomiting is another common characteristic of migraine. If your terrible headache doesn't have nausea, vomiting, visual changes it may not be a migraine after all. Migraineurs also typically seek quiet, cool dark areas and want to lay still and be quiet until it resolves.

Therapy for migraine has largely come to include the class of drugs known as triptans which are fairly specific for migraine but unfortunately also quite expensive. The exact mechanism of how they act isn't perfectly understood but we do know that they influence the constriction/dilation of blood vessels in the brain that happen with a migraine attack, they also may have other mechanisms of action that we're not yet familiar with.

Pharmaceutical companies price them high because they are so effective; patients who would formally need to go to the emergency room for IV fluids and medications including narcotics suddenly were able to treat themselves. Prices charged for these drugs have been pretty high with knowledge by the manufacturers that patients will pay the price if the only alternative is an expensive trip to the ER or a lot of misery.

Prevention of migraine is another important area to review. Certain triggers are commonly recognized such as chocolate, alcohol, and a variety of foods. "Food allergy" is a term that will make a lot of medical folks groan, we're trained that these are quite rare and many patients will mistakenly attribute whatever their complaint du jour to be is due to this syndrome. It turns out that food *sensitivity* is probably a more appropriate term. IgG, immunoglobulins can react with certain foods and trigger migraine, probably through an inflammatory mechanism. If the food can be identified and avoided the headaches can be averted. The trick here is that these sensitivities may not appear for several *days* after ingestion of the offending food. This makes it very difficult to figure out what the offending foods are. Immunolab based in Pompano FL has the technology to do this analysis.

Another form of prevention that works well involves very high doses of certain vitamins and minerals given by vein, typically done in a physicians office.

Spinal manipulation mainly to the thoracic spine to correct problems there can help prevent and abort migraine as well.

As you can probably see, headache is a very broad field of study that can only be briefly described in a short newspaper column. Relief is available. The best relief targets the

exact headache and cause of that headache. If you're suffering, seek help from a knowledgeable physician!  
To your health!

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*Electronically Signed*