

WHAT ARE MIGRAINES?

AND HOW TO GET RID OF THEM



BROUGHT TO YOU BY



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WHAT IS A MIGRAINE?

Millions of people suffer from migraines, including about 36 million in the U.S. alone. Migraine is a complex, chronic neurological disorder. Most common symptoms include terrible headaches, often on one side of the head, and nausea as well as sensitivity to light and sound. But these are not the only possible symptoms. And after decades of research, we're still learning about migraines. While many things can be happening inside your body before and during a migraine, we will focus on what appear to be the root causes inside the brain and the blood vessels that feed it.

Migraines originate within the brain. Your brain is made up of billions of brain cells called neurons. These neurons produce activity in the brain by relaying messages between themselves. They do this with chemical messengers called *neurotransmitters*. You may have heard of some of them like serotonin and dopamine. What happens is one neuron will release some of these chemicals and a neighboring neuron accepts it. This process is happening very rapidly in your brain all the time.

How does a neuron release these neurotransmitters? It uses a small electrical pulse produced within the neuron itself. The neuron moves substances, most importantly sodium and calcium, into the middle of the cell. This creates an electrical pulse that releases the neurotransmitters. The neuron then immediately moves the sodium and calcium back into storage to stop the electrical impulse.

This process of moving sodium and calcium within a neuron takes a lot of energy. (You may remember from high school biology that cells make their energy with their own little "power plants" called *mitochondria*.) Sometimes neurons do not have enough energy to move the sodium and calcium back into storage. Sodium and calcium build up and the neurons begin to "misfire," repeatedly sending electrical signals when they should not. So, this excessive electrical energy in one part of the neuron is actually caused by not enough energy being produced in another part. **The result is a sort of electrical storm in your brain as the excessive electrical activity spreads.** These misfiring neurons are at the heart of a migraine attack.

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At the start of this wave of abnormal electrical activity, many people have pre-migraine symptoms, often referred to as an *aura*. Most commonly people will have visual disturbances such as seeing zig-zags or starbursts in their field of vision. These disturbances (there is a wide range; they do not have to be visual) are a direct result of this electrical storm in the brain and for many people a sure sign that a horrible migraine headache is around the corner.

The electrical over-activity also releases a variety of chemicals in the body including inflammatory substances that mark the start of pain. The signature headache pain of migraines is mostly due to the effect of this process on blood vessels in the head and neck. First they constrict. This constriction can also contribute to pre-migraine *aura* activity. Then the blood vessels dilate causing the headache pain migraine sufferers know all too well.

So, in sum, migraines begin with too much electrical activity in your brain cells. This abnormal electrical activity is caused in part by not enough energy being produced by the cells' power factories (mitochondria) and a buildup of excess calcium and sodium. This electrical storm often causes blood vessels in the head and neck to first constrict and then dilate which in turn causes head pain. Effective migraine preventatives will target one or both of these processes.

MIGRAINE SYMPTOMS

HEADACHE AND ASSOCIATED SYMPTOMS

When most people hear the word “migraine” they think headache. This is the most common symptom that most migraineurs (migraine sufferers) experience. If you’ve ever had a migraine headache, I probably don’t need to describe it to you. Typically, a migraine headache is described as a throbbing headache. However, not everyone experiences these sorts of symptoms. When headache does occur, it usually starts off on one side of the head, often in the front. Some patients may experience pain around the eye as well. After the pain has started, it could take a few hours for it to progress, gently spreading to the rest of the head.

After the headache has reached its peak, it can last for up to 72 hours. In some cases, it can only last for a few hours and disappear, though it may recur again. The headache is often accompanied by a number of other symptoms. Patients may feel nauseous and may even vomit when headache is at its peak. A loss of appetite is common. Patients can feel lightheaded and may be sensitive to bright light (this is called photophobia) or sound (phonophobia).

In the rare cases, patients suffering from a migraine attack may have difficulty speaking. Some of them may develop weakness of one side of the body or may experience tingling and numbness in their hands and feet. Mild degrees of confusion may also be seen. If you experience these symptoms for the first time, see your doctor. These are also possible signs of more serious problems such as stroke.

PRODROME

A typical migraine attack is usually preceded by certain symptoms that 'warn' the patient of an impending migraine episode. These set of pre-migraine symptoms are known as prodromal symptoms. They often begin a few hours prior to the headache and tend to disappear once the headache has started. Some of the common prodromal symptoms include:

- craving for certain foods
- increased thirst

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- tiredness
- excessive sensitivity to sound and light
- constipation or diarrhea
- excessive urination
- mood swings
- stiff neck
- sleep problems
- excessive yawning

Many migraine sufferers begin to recognize their own pre-migraine symptoms over time. Keeping a migraine diary can help you recognize yours.

MIGRAINE AURA

A migraine aura consists of a group of symptoms that occur before or with the headache. They are primarily neurological and can develop over a period of 15 to 20 min. Typically, they last less than an hour.

Visual disturbances are common aura symptoms. Migraineurs may have difficulty with their vision, particularly one half of the vision or one area of their field of vision. Vision may become blurry or the person may “see” sparks, flashing zig-zag lines, or other disturbances, often in their peripheral vision. Some have even described seeing “golden rain showers.”

During an aura, people may also experience disturbances in their other senses, for instance strange tastes or smells. Around 4 out of 10 patients experience paresthesia, which is basically numbness in areas such as the mouth, tongue and lips. The symptoms start gradually and progress over a period of time.

It is important to recognize that not every migraineur will have a prodrome or aura. The headache may be present by itself or sometimes the aura may occur without the headache following it.

MIGRAINE HEADACHE

Intense headache is the most common symptom of migraine. It is generally a throbbing headache on one side of the head. Physical activity often makes the pain worse as do bright lights and loud sounds. Migraine headaches are often accompanied by nausea. Many migraineurs prefer to be by themselves in a dark, quiet room during an attack.

AFTER THE HEADACHE

After the headache episode has concluded, patients generally feel rather fatigued and sometimes feel irritable. In some cases, patients feel significantly better and are rather happy. Patients may experience hunger and some may even find that the muscles are weak. This generally passes after a short period of time.

DIFFERENT TYPES OF MIGRAINE

CLASSIC MIGRAINE

Classic migraine is a clinical syndrome that is characterized by headache that is preceded by aura. It is also known as migraine with aura. The symptoms seen in aura include visual disturbances, nausea, difficulty speaking or alteration in sensation that can occur for up to an hour prior to the onset of headache. Prodromal symptoms are those that are seen a few days to a few hours before the onset of the headache. Symptoms can include changes in mood, tiredness, constipation or diarrhea and cravings for food. Once the prodromal phase and the aura have passed, the headache sets in which affects one half of the head. Patients may have blurring of vision, may see flashing lights or may even be sensitive to the lights. The pain can last for a few hours up to 2 to 3 days. Once the pain subsides, the post-migraine phase sets in. This is the recovery phase and patients can either be tired or relieved.

CHRONIC MIGRAINE

Chronic migraine is the diagnosis given to migraine sufferers who have 15 or more days a month with headaches lasting four or more hours for three consecutive months.

SILENT MIGRAINE

This is an attack of migraine without the headache. Patients will still experience the prodromal symptoms and aura. It can be fairly difficult to diagnose.

BASILAR MIGRAINE

Basilar migraine is also known as Bickerstaff syndrome. It is commonly seen in adolescent and young women. It is believed to occur due to a reduction in the amount of blood flow to the lower part of the back of the brain.

Patients who suffer from this form of migraine primarily experience dizziness, light-headedness and vertigo. These symptoms are typical of what is known as 'vertebrobasilar insufficiency'. Along with this, they will experience headaches which are typical of migraine.

Nausea and vomiting, double vision and altered levels of consciousness can also be seen. Some patients have also reported difficulty speaking (dysarthria) and episodes of collapse with loss of consciousness.

RETINAL MIGRAINE

This condition is also called as ocular migraine or ophthalmic migraine. It is seen in younger adults and is characterized by the disturbance of or loss of vision in one eye. It is believed to occur due to the constriction of the blood vessels that supply the retina.

Typically, the onset of disturbance in the vision is visualized by the patient as a mosaic pattern which gradually enlarges to involve the entire field of vision. The episodes last from anywhere between a few seconds to up to an hour. Patients may or may not have headache associated with this. This combination of sudden loss of vision with or without associated headache is fairly diagnostic of retinal migraine. However, other causes need to be identified and hence forth further investigations will be required to confirm the diagnosis.

HEMIPLEGIC MIGRAINE

This is a well-recognized form of migraine that typically presents as a headache associated with weakness of one part or one side of the body (called hemiparesis or hemiplegia). There may or may not be associated difficulty speaking during these episodes. Following the onset of symptoms, the weakness may resolve but the headache may persist for a period of time. Sometimes the weakness completely resolves before the headache even starts.

Broadly classified, there are two different types of hemiplegic migraine. Familial hemiplegic migraine is one that is carried through generations through a specific gene mutation. The second type is sporadic hemiplegic migraine which is similar to familial migraine but does not have the strong family history attached to it.

ABDOMINAL MIGRAINE

This is a form of migraine that is seen in children between the ages of 5 to 9 years, though it may be seen in adults as well. Typically, patients experience pain in their abdomen along with nausea and vomiting. The abdominal pain is central in location or around the navel, though sometimes it can be in the abdomen in general. It is described as a dull ache. The pain can last for up to 72 hours and can be rather distressing. There may or may not be associated aura.

COMPLICATED MIGRAINE

This consists of a combination of different migraine conditions such as chronic migraine, migraine induced seizures and status migrainosus (continual migraine that does not go away). These conditions are fairly rare but still seen in patients suffering from migraine. Patients who have persistent aura will experience the typical aura for up to a few hours or even days (normally lasts up to 60 min). Patients who suffer from seizures due to migraine will experience them within an hour following the occurrence of migraine aura.

NOCTURNAL MIGRAINE

While not considered typical of migraine, nocturnal migraine is still considered as a clinical condition that causes headache in the middle of the night or first thing in the morning. It is believed to occur due to the release of certain neurotransmitters when the individual is asleep. These neurotransmitters are the ones that trigger the migraine.

MIGRAINE TRIGGERS

Earlier, we saw how migraines begin excessive electrical activity in the brain. If you have migraines, you probably have a genetic predisposition for your brain cells to misfire. Every migraine sufferer has her or his own set of “triggers” that ignite this electrical storm. Just about anything can be trigger, but there are several common triggers including:

- Alcohol (especially red wine)
- Monosodium glutamate (MSG)
- Tannins (found in foods like tea and smoked foods)
- Tyramine (found in foods like deli meats and aged cheeses)
- Artificial sweeteners
- Cigarette smoke
- Hormonal changes in women
- Change in routine, especially sleep routine
- Stress
- Weather changes
- Dehydration
- Eyestrain
- Excessive noise
- Bright or flickering lights
- Heat

It is important to figure out what your triggers are. But it can be tricky. Sometimes it is obvious. Maybe you eat a particular food or get exposed to cigarette smoke and very soon after a migraine hits. Often it is not so obvious. Your triggers may not always lead to migraines. It is helpful to think of your brain as having a “migraine thermostat.”

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Triggers push your migraine thermostat up towards having a migraine. Some triggers may be so powerful that they always push the thermostat all the way up to full-blown migraine.

Some triggers may be weaker and by themselves unlikely to push the thermostat all the way. Maybe you can usually drink a glass of wine without any problems, but if you didn't sleep well the night before or someone near you is smoking, that same glass gives you a monster migraine. In this example your migraine thermostat was already pushed up pretty high by smoke or lack of sleep and the wine was enough to push you over the edge.

Many migraineurs keep a migraine diary to help them discover their triggers. Just keep a daily log of what you eat and drink and other potential triggers like the weather, how well you slept, etc. Also note whether you had a migraine and how bad it was on a scale of 1-10. Over time you should see patterns develop. Once you learn what your triggers are you can work to avoid them. This is a major step in migraine prevention.

MIGRAINE TREATMENT

Unfortunately, there is currently no cure for migraine. Treatment focuses on prevention and acute care during migraine attacks. There are some prescription drugs that if taken at the beginning of a migraine attack can often stop them. These are known as abortives. The most commonly prescribed abortive drugs are triptans. Some of the best known are sumatriptan (Imitrex), rizatriptan (Maxalt), naratriptan (Amerge), frovatriptan (Frova) and zolmitriptan (Zomig). These drugs are very effective for a large percentage of migraine sufferers. The most common side effects of this class of drugs are :

- Dizziness
- Tightening in the chest or throat
- Fatigue
- Drowsiness
- Reddening in the face

Many people also use over-the-counter painkillers or prescription painkillers to treat the pain of migraine headaches. While understandable as a last resort to deal with excruciating pain, painkillers do not stop the migraine process and can lead to rebound headaches and chronic migraine.

There is also a wide variety of drugs that doctors prescribe to prevent migraines including beta blockers, anti-depressants, calcium channel blockers and anti-seizure medications. None of these medication provide 100% migraine prevention, but they are helpful in reducing migraine for some people. However, many people find the various side effects of these drugs to be unpleasant.

Many migraine sufferers turn to natural therapies to treat their condition without the side effects common to most prescription drugs. Migrastil™ (migrastil.com) contains four all natural ingredients that clinical studies have shown to reduce the frequency and/or severity of migraines.

Migrastil lowers your “migraine thermostat” It’s ingredients are magnesium, taurine, feverfew, and thiamine (vitamin B1). Let’s take a quick look at each of these ingredients in turn.

MAGNESIUM

People with migraines often have lower magnesium levels than people who don’t and several scientific studies have shown it to be an effective preventative. Whole books have been written about stopping migraines with this wonderful mineral. In some emergency rooms, acute migraines are even treated with intravenous magnesium. For many people just adding magnesium to their diet is enough to seriously reduce their migraines.

Magnesium helps prevent migraines in several ways. You will remember that excessive electrical activity in brain cells is one of the main causes of migraines. Magnesium helps calm this excessive activity so that your brain cells function normally. It does this by balancing the calcium in neurons which cause electrical firing.

It also helps your mitochondria (cellular power factories) in your neurons function properly.

Additionally, magnesium relaxes the blood vessels preventing the initial constriction that marks the beginning of a migraine attack. This has the added benefit of helping to maintain a healthy blood pressure.

If that wasn’t enough, this awesome mineral also counteracts stress and relaxes your body. Some people find they sleep better when they increase their magnesium intake. Reduced stress and better sleep are both very helpful in preventing migraines.

Magnesium’s main possible side effect is diarrhea. This side effect, if it occurs, will likely go away as your body adjusts to getting increased magnesium. Taking it with food can also help to avoid upset stomach.

TAURINE

Taurine is an amino acid often used for stress and anxiety relief. This is because taurine acts very effectively to support normal neurological function. Earlier we discussed how migraines start with electrical misfiring in the brain. Taurine acts as a brake on these excessive electrical impulses. Think of taurine as a “tune-up” for your brain that keeps all of its cylinders firing in time. This amino acid is the true superstar of the Migrastil formula.

FEVERFEW

Feverfew has been used as a folk remedy for migraines for a very long time and recent clinical studies confirm its effectiveness. It is generally safe, but as with the other substances listed here, consult your doctor before using. **Do not take feverfew if you are pregnant as it can cause contractions. It should also be avoided if you take blood thinners.**

The feverfew plant contains a substance called parthenolide that acts as a natural anti-inflammatory. This can prevent the spasms in your blood vessels that are associated with the intense head and sometimes neck pain of migraines. Feverfew also inhibits the release of histamine in your body. This is helpful because histamines have been linked to migraine attacks.

If that wasn't enough, feverfew also acts like non-steroidal anti-inflammatories such as ibuprofen and naproxen sodium to reduce pain.

Rarely, people experience digestive discomfort when starting feverfew. Like with magnesium, taking it with food can alleviate this side effect. One caution: If you take feverfew regularly, don't stop all at once. Taper off over the course of a week or two or you might experience rebound headaches.

THIAMINE (VITAMIN B1)

Vitamin B1, also known as the “stress vitamin” for its ability to help the body withstand stress was the first B vitamin discovered. It is a crucial vitamin for energy production in every cell in your body. By helping to make sure that your brain cells are “well-fed” and have all the energy they need, vitamin B1 helps your neurons maintain their normal balance and prevents the electrical misfiring among brain cells that begins a migraine attack.

Beyond these four natural supplements there are several more that have shown promise in clinical trials or have been used traditionally for a long time to treat migraine:

- Coenzyme Q10 (CoQ10)
- Vitamin B2 (riboflavin)
- Butterbur
- Ginger
- Valerian
- Melatonin (causes drowsiness)

OUR GUARANTEE TO YOU

Migrastil was designed by migraine sufferers for migraine sufferers. We understand your pain and we understand the frustration of trying new migraine products only to be disappointed when they don't deliver the relief you need. That's why we offer a 90-day, no questions asked money back guarantee on all orders. So you can try it risk free. You have nothing to lose but the pain. You didn't choose to have migraines, but you can chose to do something about it.

May your days be migraine free!

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