



HEADACHE: *A Patient's Guide*



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Headache is an extremely common problem. It is estimated that 10-20% of all people have recurring headaches. It is the seventh most common complaint to a doctor's office. Headache can be the symptom of a serious problem, or it can be recurrent, annoying and disabling but not signify any underlying pathology.

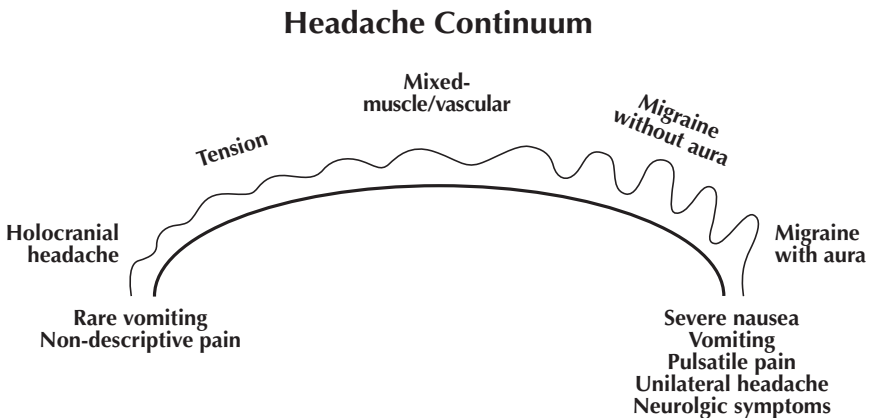
What causes head pain?

Pain in the head is carried by certain nerves that supply the head and neck. In the trigeminal system these nerves serve the face while in the C1 and C2 regions, these nerves serve the back of the head. Although pain can indicate that something is pushing against the brain or these nerves, there may be a central brain "generator" for migraine that is triggered by external stimuli. Some people's generators are more sensitive to these stimuli than others causing a person to have more frequent headache.

There is more than one kind of headache!

Most people have more than one type of headache.

The most common type of headache is the so-called "tension headache." Some believe that this is different than migraine. A better way might be to consider them the endpoints of a headache continuum. Since treatment differs for each type of headache, recognition of which headache actually occurs is important.



There is a genetic predisposition to migraine headache. It generally runs in family. Migraine is not a term for the severity of the headache, but rather what accompanies the headache.

Migraine is

- ***inherited***
- ***associated with:***
 - ***nausea and vomiting***
 - ***light and sound sensitivity***

TYPES OF MIGRAINE

Migraine with Aura:

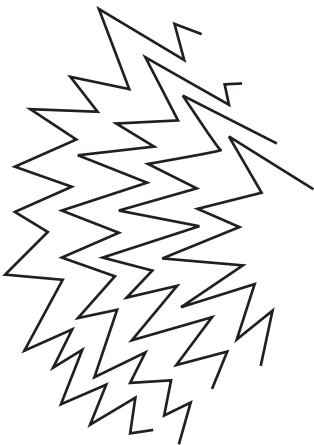
Auras can precede the migraine headache. They are usually visual, but can be symptomatic of other conditions.

Typical visual auras include:

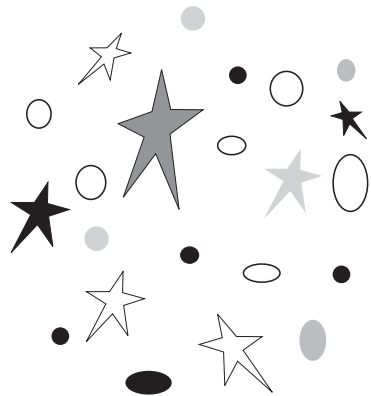
Zigzag lines, spots, dots, waves that shimmer and move. Sometimes tunnel vision can occur.

Other auras include numbness of the hands or face.

A typical aura can look like this:

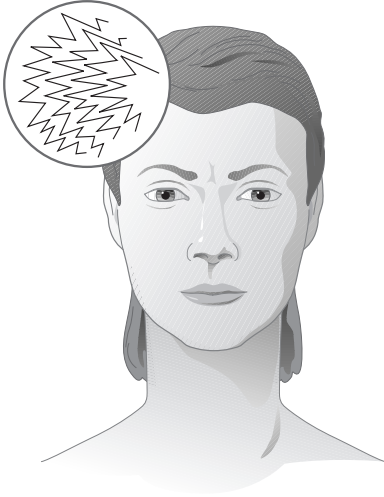


OR



CLINICAL FEATURES OF MIGRAINE

Migraine Headache



In the aura, symptoms occur in 20% of patients with migraine. There is noise and light sensitivity, nausea and/or vomiting occur. In the headache, pain is usually unilateral, has a throbbing quality, and is made worse by any physical activity.

- Flashing lights (aura with some)
- Throbbing quality
- Intolerance of noise (phonophobia)
- Intolerance of light (photophobia)
- Nausea and vomiting
- Worse with activity

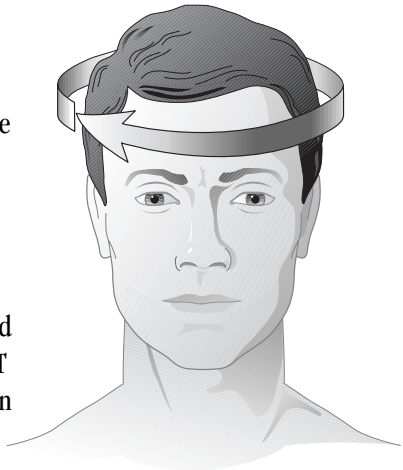
CLINICAL FEATURES OF TENSION HEADACHE

Tension headache may occur in anyone who is fatigued, reads excessively, or is stressed.

Tension headache is a dull, constant headache that can persist through the day. In the pain is pressing or tight and often described as band-like. It is NOT aggravated by activity or alcohol. It can occur in an episodic form or chronic (greater than 15 days in a month).

There may be mild light or sound sensitivity.

Tension-type Headache

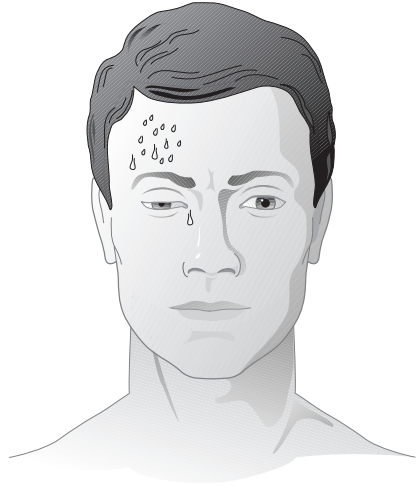


- Mild photophobia or phonophobia
- Band around head

CLINICAL FEATURES OF CLUSTER HEADACHE

Cluster headache is a disorder frequently seen in men (7:1). It generally starts in the second or third decade. The excruciating pain is characteristically over one side and is associated with drooping eyelid, a smaller pupil, sweating, tearing, and nasal congestion. The cluster period lasts weeks or months. During the period the attacks can occur 1-3 times in a day and can awaken the individual at night from sleep.

Cluster Headache



Cluster Headache is a distinct headache syndrome seen in men.

It is always unilateral and precipitated by alcohol, excitement and sleep. The pain lasts 15-90 minutes and radiates to the temple, jaw, nose, chin or teeth. It can be periodic with weeks or years in between cluster periods or chronic with no break from beginning to end. Cluster headaches respond to certain types of medication.

A headache type similar to Cluster seen in women is **CHRONIC PAROXYSMAL HEMICRANIA**. This headache is unilateral and briefly occurs multiple times a day. It may have symptoms of nasal congestion, droopy eye lid and redness to the eye. It usually responds to Indomethacin.

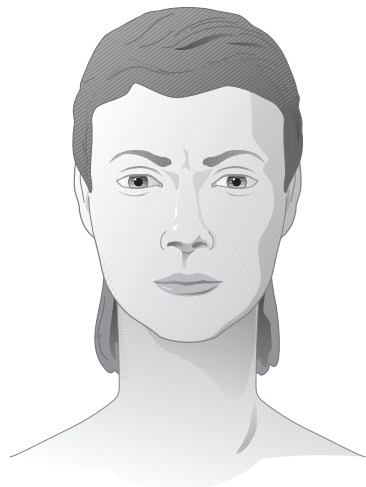
CLINICAL FEATURES OF DRUG REBOUND HEADACHE

Patients experience daily headache for which they take medication on a regular basis. When patients take medicine more than three days in a week, they are at risk for developing REBOUND headaches. This type of headache occurs daily. The medication may initially help, but the pain soon recurs and becomes a vicious cycle. Typically, these people start with episodic migraines in their teens or twenties, when their headaches begin to increase in frequency and require daily or near daily medication. Medications like aspirin, acetaminophen (Excedrin, Anacin), and in combination with caffeine along with with narcotics (codeine, hydrocodone, butorphanol (Stadol), ergotamines, sinus medicines and other headache medications including triptans can cause this type of headache. That condition occurs in conjunction with migraine and is frequently superimposed on episodic migraine.

Daily use of pain killers may interfere with the body's pain-fighting mechanisms in the brain. As the medicine wears off, the individual is even MORE vulnerable to get a headache! Fortunately, simply getting off the daily medication gives individuals a good chance of decreasing their headache. With the addition of medication for sleep, a person has an almost 70% chance of significant relief.

Rebound Headache

Drug Rebound headache is seen in patients using analgesics more than 3 times a week—most often daily. This type of headache occurs every day, responds briefly to medication taken and is present upon waking. Migraines are superimposed. Frequently, this causes sleep disturbance and depression.



Symptoms of migraine superimposed on symptoms of drug rebound

SINUS HEADACHE

Sinus headache usually occurs as the result of an infection, inflammation, or a congestion in the sinus cavities. Sinuses are located around the eyes, nose, and cheeks and nerve endings can produce pain behind these areas. Sinus headaches are usually associated with colds and worsen with coughing or changes in head position. Sinus headache is RARE. In fact, a migraine can occur around the face and can feel like it is coming from the sinuses, leading many people to treat “sinuses” when the problem is really a migraine. Sinus infections are treatable and can be easily seen on a scan. If you feel you have sinus headache, discuss this with your doctor.

CHRONIC DAILY HEADACHE

There are only a few causes of chronic daily headache.

- ***Something wrong in the head***

Your doctor will examine you and determine if there are symptoms or signs of a serious headache problem. Some of the warning signals of a serious headache include:

- *The sudden onset of the most severe headache in one's life.*
- *A side-locked headache which gets progressively worse.*
- *Headache occurring simultaneously with coughing, straining, or sexual activity.*
- *New headaches after age 50.*
- *Headache associated with abnormalities of the neurological examination.*

Your doctor will probably order a head scan if you experience one or more of these symptoms.

- ***Something wrong in the blood***

Some headaches occur when a person has anemia, thyroid problems, sleep apnea (retain carbon dioxide and dilate blood vessels) or inflammatory conditions such as arthritis.

- ***Transformed migraine***

Migraine can occur nearly daily after several events including infections, meningitis, head injury, overuse of medications (DRUG REBOUND) or serious illness.

• ***Depression***

Depression is biochemically linked to headaches. In fact, depression seems to run in families with headache and vice versa and treatment usually helps with headache.

• ***Internal Conflict***

Any time a person has a serious psychological conflict, (for example, sexual abuse) chronic headaches can occur.

KNOW YOUR HEADACHE TYPE

Your doctor should give you a diagnosis of all your headache types. Upon diagnosis, you will need to keep track of your different headaches so that you understand these different types of headaches.

TREATMENT OF HEADACHE

Know your triggers!!

A trigger is a factor that provokes a headache in certain people. The best way to know your headache triggers is to keep a diary and write down what happens when a headache occurs.

Diet

Diet affects headache in some people. Keep track of what you eat.

<u>Type of food:</u>	<u>Example</u>
MSG	Found in many foods - read labels (esp soups, pizza, chips, Chinese food)
caffeine	chocolate, coffee/tea (no more than 2-3 cups each day)
alcohol	red wine, champagne, beer
dairy products	aged cheese, yogurt, sour cream
meats	processed meats with nitrites (hot dogs, sausage, smoked meat)
fruits	citrus, bananas, avocado
dessert	chocolate

Important things to remember about your diet:

- *eat regularly*
- *don't skip meals*
- *avoid sugar*

Environment

Light (especially glare, fluorescent lights, strobe lights and stripes, computers and television screens)

Sounds (loud noises)

Smells (strong odors)

Weather (marked changes in temperature, humidity, winds)

Travel (altitude changes)

Physical Factors

Exercise (in some people, excessive exercise can produce headache and, in some people, lack of exercise can make headache worse.)

Sleep (especially the lack of sleep can trigger headache). If you do not sleep well at night, your headache control you. Sleep is restorative!

Emotional Factors

Stress does not cause headaches, but will often make headache worse.

During stressful times, common chemicals such as epinephrine are released into the blood. As the stress subsides and chemical levels fall, people experience headaches. Learning stress management techniques are important to headache sufferers.

Depression: anger, anxiety, fatigue, excitement and anticipation can all make headaches worse.

Hormonal Factors

Estrogen and progesterone levels in certain women affect headaches. Falling levels of estrogen are usually associated with headache while using lower dose birth control pills or the lowest dose of estrogen supplements can be helpful in the treatment of headache.

The early stages of pregnancy can exacerbate headache and frequently, in the later stage of pregnancy, headaches may improve. After delivery, headaches may resume.

Medication can trigger headache

Some over-the-counter pain relievers, analgesics and even some prescribed drugs can actually trigger headaches. Herbs may also trigger headaches. It is important to let your doctor know **ALL** the medications you are taking.

MIGRAINE TREATMENT

Treatment is divided into *Prevention* and *Acute* medication treatment. Prevention is always the goal. First, know your trigger mechanisms.

Preventive Medications for Migraine

Any trial of a preventative should be given at a dose to prevent the headache and over a time period to be sure you have adequately tried the medication (usually 4-6 weeks). Every medication has side effects, and side effects that are bothersome should be brought up with your doctor.

Commonly Prescribed Medications to Prevent Headache

Calcium Channel Blockers — (cardiac medication which may prevent headache).

Verapamil (Calan, Isoptin)
Diltiazem (Cardizem)
Nifedipine (Procardia)
Amlodipine besylate (Norvasc)

Beta-Blockers — (cardiac medications which have been used to prevent migraine. These are among the most effective)

Examples: propranolol (Inderal)
nadolol (Corgard)
Timolol (Blocadron)

These are contraindicated in asthmatics and people with extremely low blood pressure.

Tricyclic Antidepressants — (May be effective for migraine and tension headache). They increase serotonin and are sedating; they also work well for people who do not sleep well at night. They can increase your appetite, so watch what you eat.

Amitriptyline (Elavil)	Protryptiline (Vivactil)
Nortriptyline (Pamelor)	Doxepin (Sinequan)
Imipramine (Tofranil)	Trazodone (Desyrel)
Desipramine	

Other antidepressants — (shown to be effective in headache treatment). These are especially helpful in patients who are also depressed.

Fluoxetine (Prozac)
Sertraline (Zoloft)
Venlafaxine (Effexor)
Paroxetine (Paxil)
Nefazodone (Serzone)

Monoamine oxidase inhibitors
Phenelzine (Nardil)

Anticonvulsants —

Divalproex sodium, valproic acid (Depakote)
Gabapentin (Neurontin)
Phenytoin (Dilantin)
Topiramate (Topamax)

Non-steroidal anti-inflammatory drugs (NSAID) —

Naproxen sodium (Anaprox; Aleve)
Ibuprofen (Motrin, Advil)
others

Other medications used —

Methysergide (Sansert)
Cyproheptadine (Periactin)

Botulinum Toxin (Botox Injections) — Injections of Botox into the face, temple and neck muscles may produce relief of migraine headache for months.

Abortive Medications for Acute Headache

Once a headache has started, it is important to remember three principles:

Prevent nausea//Treat pain//Sleep

Nausea control —

metoclopramide (Reglan) 2-5 mg
promethazine (Phenergan) 25-50 mg (oral {po} or suppository {pr})
Prochlorperazine (Compazine) 25 mg (po, pr)

Pain control —

Aspirin
Combination Analgesics
aspirin/caffeine/butalbital (Fiorinal)
acetaminophen/caffeine/butalbital (Fioricet, Esgic)

Should be used sparingly since these too can cause rebound headache.

Isometheptene (Midrin) 1-2 pills at onset, repeat every 1-2 hours up to 5 pills in 24 hours or 15 per week.

Ergotamines are an old, but extremely effective medication used to treat migraine. These can make you nauseated and should be taken with something for nausea. Forms of ergotamine include:

- oral—with/without caffeine
- Wigraine ergomar/ergostat
- suppository: Cafergot
- nasal spray: DHE Nasal Spray (Migranal)
- IM/IV: DHE-45
- Ergotamines should not be used more than 2 days a week and no more than 10 mg in a week or 4-5 mg in a day.

The triptans are the latest therapy in migraine management. They are serotonin agonists.

Sumatriptan (Imitrex) affects the 5HT-1 receptor. It can be administered:

- Sub Q (beneath the skin) 6mg and repeated once in 24 hours.
- Oral sumatriptan 25-50 mg every 2 hours up to 300 mg in 24 hours
- Nasal Spray 20 squirt repeated once in 24 hours.

Note: 150 mg oral is about equivalent to 1 shot or one spray; therefore no more than 2 shots or 2 sprays in 24 hours or 150 mg with 1 spray or 1 shot.

Maxalt (Rizatriptan) also affects the 5HT-1 receptor. It can be administered:

- Orally 5-10 mg every 2 hours up to 20 mg in 24 hours
- Orally on the tongue, fast disintegrating tablet, 5/10 mg up to 20 mg in 24 hours

Zomitriptan (Zomig) is a triptan. 2.5-5.0 mg up to 10 mg/24 hr

Naratriptan (Amerge) is another triptan. 1.25-2.5 mg up to 5 mg/24 hr

WARNING: These medications should be used with supervision. They have caused heart attack and death in individuals with underlying heart disease. Therefore, discuss the use of these medications with your doctor. They should not be used with ergotamines and should be used with caution with other serotonin drugs.

Narcotics:

Hydrocodone (Lortab)
Oxycodone (Perocet)
Propoxyphene (Darvocet)
Butorphanol (Stadol)
Codeine (Tylenol #3)

Note: These medications should be used sparingly since they too can lead to rebound. We suggest no more than 2 times each week.

If all else fails, sleep usually will stop a headache.

Sleep Aids
Chloral hydrate 500-1500 mg for sleep
Trazodone 25-50 mg
barbiturate (Nembutal)

Non-medication ways to prevent and treat headaches

- Light sensitivity can be treated with FL-41 tint glasses which seem to decrease the flickering associated with computers, fluorescent lighting, and television sets.
- Progressive muscle relaxation is practiced by alternatively contracting then relaxing muscle groups.
- Visualization
- Icing, massage

EDUCATION IS POWER!

The more you know the better you do!

Your job is to learn all you can about your headache and your triggers to help yourself get better.

Reading about headaches will help you understand what you can do for yourself to help with your headache.

WEBSITE: www.toddroost.com/ — and click on MIGRAINE

Migraine: (In) the Complete Guide written ACHE and Constantine and Scott, 1994

Headache Relief by Rapaport and Sheftell (Simon and Schuster)

Hope for your Headache Problem (More than Two Aspirin)
by Diamond and Vye

Taking Control of Your Headaches - How to get the Treatment You Need by Duckro, Richardson, Marshall (In the Guilford Press)

Understanding Migraine by the Migraine Trust

Living with Migraine by Wilkinson

Overcoming Migraine by Betsy Wycoff

Join a headache foundation and learn through their mailing lists all about what is new in headache.

American Council for Headache Education (ACHE)
875 Kings Highway
Suite 200
Woodbury, New Jersey 08096-3172

National Headache Foundation
428 W. St. James Pl.
Chicago, Illinois 60614-2750

There are also On-line Services you can browse:

American Online has message boards under medical forum. There are also private rooms "HACHES"

Compuserve has a board and library under Health and Fitness Forum (Go Goodhealth) 9:30-10:30 p.m. EST last Monday of every month in the Health and Fitness Forum as well as Headache/Migraine conference room R2

Prodigy bulletin board; post to ACHE physicians under the topic MHA-"Dear Ache" Chat 9-10 pm EST every Thursday

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