

## Migraine Headaches

### Zolmitriptan Oral Uses

Zolmitriptan is used to treat migraines. It helps to relieve headaches, pain, and other symptoms of migraines, including nausea, vomiting, and sensitivity to light/sound. Prompt treatment allows you to get back to your normal routine and may decrease your need for other pain medications. Zolmitriptan does not prevent future migraines or reduce how often you may get a migraine.

Zolmitriptan belongs to a group of drugs called "triptans." Migraines are thought to occur when certain blood vessels in the brain become swollen (dilated). This drug works by helping blood vessels in the brain to return to normal size. It may also block pain signals in the brain.

### How to use Zolmitriptan Oral

Read the Patient Information Leaflet available from your pharmacist before you start using zolmitriptan and each time you get a refill. Ask your doctor or pharmacist if you have any questions.

Your dosage is based on your medical condition and response to treatment.

Take this medication by mouth, with or without food, at the first sign of a migraine as directed by your doctor. If there is no improvement in your symptoms, do not take any more doses of this medication before talking to your doctor. If your symptoms are only partly relieved, or if your headache comes back, you may take a second dose after 2 hours or as directed by your doctor. Do not take more than 10 milligrams in a 24-hour period.

If you have certain conditions that increase your risk of heart disease and you have never taken this medication before, you may need to be monitored for rare but serious side effects (e.g., chest pain) when you take the first dose. Your doctor may ask you to take the first dose in the office. See Precautions section for more information.

Tell your doctor if your condition does not improve or if it worsens

A headache is a pain in the head with the pain being above the eyes or the ears, behind the head (occipital), or in the back of the upper neck. Headache, like chest pain or back ache, has many causes. All headaches are considered primary headaches or secondary headaches. Primary headaches are not associated with other diseases. Examples of primary headaches are migraine headaches, tension headaches, and cluster headaches. Secondary headaches are caused by other diseases. The associated disease may be minor or major. Tension headaches are the most common type of primary headache. 90% of adults have tension headaches. Tension headaches are more common among women than men. Migraine headaches are the second most common type of primary headache. An estimated 28 million people in the US have migraine headaches. Migraine headaches affect children as well as adults. Before puberty, boys and girls are affected equally by migraine headaches, but after puberty more women than men have them. Migraine often goes undiagnosed or is misdiagnosed as tension or sinus headaches. Cluster headaches are a rare but important type of primary headache, affecting mainly men. The average age of cluster headache sufferers is 28-30 years, although headaches may begin in childhood. Secondary headaches may result from innumerable conditions, ranging from life threatening ones such as brain tumors, strokes, meningitis, and subarachnoid hemorrhages to less serious but common conditions such as withdrawal from caffeine and discontinuation of analgesics (pain killing medication). Many people suffer from "mixed" headache disorders in which tension headaches or secondary headaches may trigger migraine. The treatment of the headache depends on the type and severity of the headache and on other factors such as the age of the patient. Headache is also referred to as cephalgia.

### **Migraine Glossary**

The list below is a comprehensive guide to commonly used migraine terms.

## **Analgesics**

Analgesics are a diverse group of drugs used to relieve pain. They include aspirin, paracetamol (acetaminophen) and non-steroidal anti-inflammatory drugs such as naproxen and ibuprofen. Analgesics may be effective for the treatment of migraine, particularly in those patients with attacks of mild intensity.

## **Migraine Aura**

Aura is a symptom of the classic migraine headache, and comprises warning signs that generally occur before a migraine headache begins. Migraine aura can be visual (bright flashing lights, flickering, colored zigzag lines, etc.), sensory (tingling sensation, numbness, etc.) or motor (temporary weakness or paralysis) in nature, with visual aura being the most common. The word aura comes from the Greek word for wind and, just as a strong wind may precede a storm, an aura may precede a migraine. Aura may occur without head pain.

## **Basilar-type migraine**

Basilar-type migraine is characterized by migraine with aura symptoms originating from the brainstem and/or affecting both hemispheres of the brain at the same time, but generally without any motor weakness. Basilar-type attacks are most often observed in young adults.

## **Biofeedback**

Biofeedback is a non-pharmacological form of migraine treatment that educates patients about their physiological state and how to control it using visual or auditory instruments. Patients are taught to self-regulate their heart rate, blood pressure and muscle tension, and acquiring and regularly practising these skills may reduce the frequency and severity of migraine and tension-type headaches.

## **Chronic migraine**

Patients with chronic migraine experience migraine headache on at least 15 days per month for more than 3 months in the absence of medication overuse.

### **Chronic paroxysmal hemicrania**

Paroxysmal hemicrania is associated with similar pain characteristics and symptoms as cluster headache, but headaches are shorter-lasting, more frequent, occur more often in females, and respond to treatment with indomethacin (a non-steroidal anti-inflammatory drug). Chronic paroxysmal hemicrania comprises attacks of paroxysmal hemicrania that occur for a year or more without remission, or with remissions lasting less than a month.

### **Classic migraine (migraine with typical aura)**

Classic migraine is a migraine associated with the appearance of aura just before, or at the onset of, an attack. Aura may comprise fully reversible visual symptoms (flickering lights, spots or lines, or loss of vision), sensory symptoms (pins and needles and/or numbness) and/or speech disturbances. Classic migraines differ from common migraines, which have no aura.

### **Cluster headache**

A cluster headache is a particular type of headache characterised by severe pain on one side of the head. Headaches generally last up to 180 minutes and occur in 'clusters' at a frequency of once every other day to eight times a day. Attacks are associated with nasal congestion, rhinorrhoea and forehead (and/or facial) sweating, usually on the same side of the head as the headache. The age of first onset of cluster headache is generally 20-40 years. The prevalence of cluster headache is 3-4 times higher in men than in women.

### **Cognitive behavioural therapy**

Cognitive behavioural therapy is a non-pharmacological treatment for migraine that encourages patients to take control of their illness through insight, self-knowledge and planning. It involves identifying and modifying a patient's response, such as anxiety and distress, to migraine, and, where possible, removing such stressors.

### **Common migraine (migraine without aura)**

Common migraine is a migraine that is not preceded by aura. Migraine without aura generally lasts 4-72 hours. Pain is typically located on one side of the head, is pulsating in nature, is moderate or severe in intensity and is aggravated by normal physical activity. It may also be associated with nausea and/or sensitivity to light (photophobia) and/or sensitivity to sound (phonophobia).

### **Ergotamine**

Ergotamine is a drug originally derived from the ergot fungus that causes constriction of the blood vessels and has been used since the 1920s to treat migraine headaches.

### **Familial hemiplegic migraine**

Familial hemiplegic migraine is migraine with aura including weakness on one side of the body, with the patient having at least one first- or second-degree relative with migraine with aura including muscle weakness.

### **Headache Care for Practising Physicians (HCPC)**

Headache Care for Practising Physicians (HCPC) is an independent organisation that aims to improve the management of headache worldwide. The HCPC group has developed international guidelines designed to set new standards for the screening, diagnosis, management, treatment and follow-up of migraine patients in primary care.

### **International Headache Society (IHS)**

The International Headache Society (IHS) is an international membership organisation for healthcare professionals committed to helping people whose lives are affected by headache disorders. In 2004, the IHS published the second edition of the International Classification of Headache Disorders, which comprises comprehensive classification and diagnostic criteria for headache disorders.

### **Medication-overuse headache**

Medication-overuse headache is caused by regular overuse (for more than three months) of one or more drugs used in the treatment of headache. Headaches occur on at least 15 days per months, are variable in nature and often have characteristics that shift, even within the same day, from migraine-like headache to tension-type headache.

### **Menstrual migraine**

Menstrual migraine relates to migraine attacks that occur in women around the time of menstruation. Menstrual attacks are mostly migraine without aura. Attacks that occur only with menstruation are known as pure menstrual migraine and occur exclusively on the first day of menstruation ( $\pm 2$  days) in at least two out of three menstrual cycles. Menstrually related migraines have similar criteria, but can also occur at other times of the menstrual cycle.

### **Migraine Disability Assessment (MIDAS) questionnaire**

The Migraine Disability Assessment (MIDAS) questionnaire is a patient-completed form that measures headache-related disability. It was developed for use in primary care and has been rigorously tested for reliability and validity in clinical and research settings. The questionnaire is designed to help both patients and physicians improve the management of migraine.

### **New daily persistent headache (NDPH)**

New daily persistent headache (NDPH) is a disorder that evolves from episodic tension-type headache. It is associated with daily or very frequent episodes of headache that lasts minutes to days. Pain is mild to moderate in intensity, usually occurs on both sides of the head, and is pressing or tightening in quality. With NDPH, pain does not worsen with normal physical activity. Mild nausea, photophobia or phonophobia may occur.

### **ODT**

ODT is the abbreviated version of orally disintegrating tablet, a tablet that dissolves on the tongue without the need for the intake of fluids.

**Osmophobia**

Osmophobia is defined as an abnormal sensitivity to smell.

**Phonophobia**

Phonophobia is defined as an abnormal sensitivity to sound.

**Photophobia**

Photophobia is defined as an abnormal sensitivity to light.

**Primary headache**

A primary headache is one with no underlying cause. Primary headaches include migraine, tension-type headache and cluster headache.

**Prophylactic medication**

Prophylactic (preventative) medications are those taken on a regular basis to prevent the onset of an ailment such as migraine.

**Secondary headache**

A secondary headache is one that results from an underlying medical cause. Secondary headaches may be the result of a tumour, meningitis, vascular disorders, systemic infection or a head injury.

**Serotonin**

Serotonin (5-hydroxytryptamine) is a neurotransmitter that is thought to be important in the mechanism of migraine headaches.

**Short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing (SUNCT)**

Short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing (SUNCT) is a syndrome that is characterised by short-lasting attacks that occur 3 to 200 times a day. Pain lasts for five seconds to four minutes, is stabbing or pulsating in nature, and occurs on one side of the head.

### **Sinister headache**

Sinister headaches are serious but rare secondary headaches. Sinister headaches are new in onset and acute in nature, and may be associated with a range of other symptoms, including neurological deficit, pain or tenderness, rash and/or vomiting. Such headaches may be associated with an accident or head injury, infection or hypertension. If sinister headache is suspected a full neurological examination should be undertaken.

### **Tension-type headache**

Tension-type headache is the most common type of primary headache. It may be episodic (infrequent or frequent) or chronic in nature and is characterised by pain that is bilateral, pressing or tightening in quality and of mild-to-moderate intensity. Pain does not worsen with routine physical activity and, although no nausea is present, photophobia or phonophobia may occur. Frequent episodic tension-type headache is characterised by at least ten episodes occurring on less than one day per month, while frequent episodic tension-type headache is characterised by at least ten episodes occurring on more than one but fewer than 15 days per month for at least three months. Chronic tension-type headache is similar in nature but occurs on at least 15 days per month for more than three months (i.e. occurring on at least 180 days per year).

### **Transcutaneous electrical nerve stimulation (TENS)**

Transcutaneous electrical nerve stimulation (TENS) is a non-pharmacological method of treating chronic pain problems, including migraine. A TENS unit is a small battery-powered device with wires that attach to electrodes pasted to the skin. Small electrical stimuli are applied to the skin and interfere with the transmission of pain signals to the brain.

### **Trigger**

A trigger is anything that can induce a migraine headache in a genetically predisposed individual. Common triggers include (but are



not limited to) stress, changes in hormone levels in females, skipping meals, certain odours such as perfume, sleeping late at weekends, sleep loss, alcohol, and some foods, including cheese, chocolate and monosodium glutamate.

## **Triptans**

Triptans are the first class of drugs designed to relieve migraine symptoms by directly targeting the disease pathology. Currently, seven triptans are available for the treatment of migraine, including zolmitriptan.

## **US Headache Consortium**

The US Headache Consortium is a group composed of seven member organisations that have developed guidelines to prevent, treat, and improve the diagnosis of migraine.

## **Tension Headache Overview**

More than 10 million people a year visit a doctor or an emergency department because of headache. With a complete history and physical examination, a doctor can correctly diagnose and treat a great majority of headaches. Tension headache is the most common type of headache. About 69% of men and 88% of women develop a tension headache sometime during their lives.

Tension headache can occur at any age but most commonly begins during adolescence or young adulthood, with the highest frequency among those aged 20-50 years.

More than 300 known medical disorders can produce headaches. In 1988, the International Headache Society developed a classification system for headache. Thirteen categories of headache are subdivided into 129 subtypes. Headache types are described as primary or secondary.

Primary headaches include migraine, tension-type, and cluster headaches. More than 90% of people who see a doctor for headache pain have one of these types. Primary headaches are usually harmless, but they may come back again and again.

Secondary headaches are often the result of some underlying disease, of which head pain is a symptom.

The International Headache Society further divides tension headaches into episodic or chronic and on the presence or absence of pericranial muscle tenderness (pain on the outside of the skull).

People with episodic tension-type headaches have at least 10 previous headache episodes lasting from 30 minutes to 7 days and occurring fewer than 180 times a year. The headache must have at least 2 of the following characteristics:

- Pressing/tightening (nonpulsating) quality,
- located on both sides of the head
- Mild or moderate intensity
- Not aggravated by routine physical activity
- No nausea or vomiting
- Possible sensitivity to light or sound but not both

People with chronic tension-type headache have an average headache frequency of 15 days a month or 180 days a year for 6 months and must also meet the criteria for episodic tension-type headache. In addition, people with chronic tension-type headache must not have another disorder as shown by physical and neurologic examination.

### **Tension Headache Causes**

Many people associate the onset of tension-type headache with stress or upsetting emotional situations. However, these factors have not been shown to lead to muscle contraction or reduced blood flow. Although people may have tenderness of the muscles surrounding the head, tension-type headache is not the result of sustained muscle contraction.

The most compelling current evidence points to a central nervous system dysfunction as the underlying cause of tension-type headaches. Thus, the muscle ache of tension-type headache is thought to be a result of increased sensitivity of the nervous system and pain from occasional or long-term imbalances in brain chemicals known as neurotransmitters (serotonin, dopamine, norepinephrine,

enkephalins). Studies show that some people with primary headache disorders respond to medications that specifically target and influence serotonin. These are mostly people who have migraine or cluster headaches. Most of those who do not have migraine or cluster headaches do not respond to serotonin-targeted drugs.

People with chronic tension-type headache may also have imbalances in neurochemicals. In fact, depression may be an underlying cause in some people with chronic tension headaches. Depression and some sleep disorders are linked to serotonin.

## **Tension Headache Symptoms**

In general, a tension-type headache may cause diffuse (spread out, not in one place) pressure or tightness. Sometimes, muscles surrounding the head are tender.

The pain may be on both sides of the head, or it may cause an aching or squeezing sensation located in the forehead, temples, or back of the head with radiation to the neck and shoulders. Pain is usually moderate in intensity, not severely disabling, and not associated with the typical symptoms of migraine, such as nausea, vomiting, or sensitivity to sound or light.

The onset of pain is usually gradual and not associated with any prodrome or period in which a person can feel a headache coming on.

People may associate the onset of a tension-type headache to periods during or after stress and usually toward the latter part of the day.

If the tension-type headache is present for more than 15 days a month or longer than 6 months, it is considered chronic rather than episodic.

## **When to Seek Medical Care**

People with episodic or chronic tension-type headache who experience a change in severity or frequency should consult with a doctor.

People without a history of headache who are older than 50 years and experience pain in the temporal region (near the temple on the head) should see a doctor to be evaluated for temporal arteritis. In addition, those older than 50 years with new-onset headache should be evaluated for possible malignancy.

When headache is associated with signs of infection, such as fever, rash, or stiff neck, a doctor should be seen to rule out conditions like meningitis, encephalitis, or Lyme disease.

Persons with new-onset headache who either have risk factors for HIV infection, or who have HIV infection or cancer, may need imaging studies to rule out meningitis, brain abscess, or the spread of cancer.

### **When to go to the hospital**

Certain headaches may indicate a more serious underlying problem. In these cases, the person should seek immediate medical attention at a hospital emergency department.

People who may or may not have a history of headache and feel they are experiencing the worst headache of their life should seek emergency help, especially if the headache feels "explosive" and came on suddenly. This may suggest bleeding within or around the brain. The sudden onset, not necessarily the severity of the pain, is a signal that people with such headaches should be checked.

People with headache and other associated symptoms, such as loss of vision in one eye, weakness on one side of the body, slurring or garbled speech, or inability to understand and follow commands, should be evaluated at once.

Any person, but especially an elderly person, who sustains any form of trauma associated with the onset of headache must be evaluated in an emergency department.

## **Exams and Tests**

Most tension-type headaches are diagnosed based on a complete and comprehensive history and physical examination. No further diagnostic studies are needed for people who have normal neurological examination findings and are otherwise healthy.

In contrast, people with chronic tension-type headache, regardless of whether they have normal neurological examination findings, should have a CT scan and MRI. Although this sophisticated imaging does not diagnose a specific type of headache syndrome, it may prove invaluable in excluding other causes of the headaches. Thyroid function studies, complete blood cell count, and metabolic screening should also be performed.

## **Self-Care at Home**

Most people with tension-type headache find relief with over-the-counter medications such as aspirin, acetaminophen, and other nonsteroidal anti-inflammatory drugs (NSAIDs).

Certain people may require prescription-strength pain relievers for particularly severe episodes.

Frequent use of medications to treat symptoms of headache may actually cause episodic tension-type headache to become chronic in nature

## **Medications**

Prescription-strength pain relievers may be given once the doctor has a better understanding of a person's headache and other coexisting medical conditions. Doctors are careful, however, to prevent people from becoming dependent on strong narcotic drugs, especially when headaches come back again and again.

For headache pain that cannot be controlled with pain relievers, doctors may prescribe preventive therapy such as antidepressants, beta-blockers, or anticonvulsants.

People with the diagnosis of tension-type headache should take medications as directed and arrange a return visit to the doctor in 1-2 weeks. At that time, the doctor can make medication adjustments or provide further diagnostic work if the diagnosis remains uncertain.

Medical attention should be sought immediately if new symptoms or a profound change in symptoms are experienced.

If a person has depression or anxiety disorders, or if he or she simply overuses medications, detoxification is necessary before effective treatment can begin. Some people with very complex situations may benefit from combinations of medications. In these cases, the doctor may make referrals to neurologists, psychiatrists, or anesthesiologists.

Zolmitriptan is used to treat migraines. It helps to relieve headaches, pain, and other symptoms of migraines, including nausea, vomiting, and sensitivity to light/sound. Prompt treatment allows you to get back to your normal routine and may decrease your need for other pain medications. Zolmitriptan does not prevent future migraines or reduce how often you may get a migraine.

Zolmitriptan belongs to a group of drugs called "triptans." Migraines are thought to occur when certain blood vessels in the brain become swollen (dilated). This drug works by helping blood vessels in the brain to return to normal size. It may also block pain signals in the brain.

### **How to use Zolmitriptan Oral**

Read the Patient Information Leaflet available from your pharmacist before you start using zolmitriptan and each time you get a refill. Ask your doctor or pharmacist if you have any questions.

Your dosage is based on your medical condition and response to treatment.

Take this medication by mouth, with or without food, at the first sign of a migraine as directed by your doctor. If there is no improvement

in your symptoms, do not take any more doses of this medication before talking to your doctor. If your symptoms are only partly relieved, or if your headache comes back, you may take a second dose after 2 hours or as directed by your doctor. Do not take more than 10 milligrams in a 24-hour period.

If you have certain conditions that increase your risk of heart disease and you have never taken this medication before, you may need to be monitored for rare but serious side effects (e.g., chest pain) when you take the first dose. Your doctor may ask you to take the first dose in the office. See Precautions section for more information.

Tell your doctor if your condition does not improve or if it worsens. Before taking zolmitriptan, tell your doctor or pharmacist if you are allergic to it; or to other "triptan" migraine drugs; or if you have any other allergies.

This medication should not be used if you have certain medical conditions. Before using this medicine, consult your doctor or pharmacist if you have: heart disease (e.g., chest pain, heart attack, irregular heartbeat, coronary artery disease, vasospasm), blood flow problems in the brain (e.g., stroke, transient ischemic attack), blood vessel disease (e.g., peripheral vascular disease, ischemic bowel disease), uncontrolled high blood pressure (hypertension), certain types of headaches (hemiplegic or basilar migraine), severe liver disease.

Before using this medication, tell your doctor or pharmacist your medical history, especially of: blood circulation disorder (e.g., Raynaud's disease), kidney disease.

Before using this medication, tell your doctor or pharmacist if you have any condition that increases your risk of heart disease, including: high cholesterol level, high blood pressure, diabetes, smoking history, family history of heart disease or stroke, overweight, female after menopause, male older than 40 years.

If you are at high risk for heart disease, your doctor may want to check your heart before prescribing zolmitriptan.

This drug may make you dizzy or drowsy. Use caution while driving, using machinery, or doing any other activity that requires alertness. Limit alcoholic beverages.

During pregnancy, this medication should be used only when clearly needed. Discuss the risks and benefits with your doctor.

It is not known whether this drug passes into breast milk. Because of the possible harm to the nursing infant, breast-feeding while using this drug is not recommended. Consult your doctor before breast-feeding.

## **Prevention**

Medications used for prevention of tension-type headache include antidepressants, beta-blockers, and anticonvulsants. These medications are usually worth trying, but they are more likely to be effective if the person also has migraine or cluster headaches. Most doctors choose to start with the newer generation antidepressants, which have fewer side effects, and gradually increase the dose to reach a therapeutic effect. Antidepressants may have to be tried for 1-2 months to determine if they help.

## **Outlook**

Tension-type headache is a harmless medical condition that responds well to over-the-counter pain relievers taken when an occasional headache strikes. Some people with episodic tension-type headache overuse medications and cause headaches to progress into chronic tension-type headaches.

At present, no studies associate tension-type headache with the development of more severe or life-threatening medical conditions. Additionally, no studies specifically evaluate chronic tension-type headache. The outlook for people with chronic tension-type headache is not well understood.