



Summary of Evidence-based Guideline for **PATIENTS** and their **FAMILIES**

PRESCRIPTION DRUG TREATMENT FOR MIGRAINE PREVENTION IN ADULTS

This information sheet may help you understand which prescription drugs help prevent migraine headaches in adults. This information is a service of the American Academy of Neurology (AAN) and the American Headache Society. A companion information sheet is available regarding complementary treatments for migraine prevention.

Neurologists from the AAN are doctors who identify and treat diseases of the brain and nervous system. The following evidence-based information* is provided by experts who carefully reviewed all available scientific studies on use of prescription drugs for migraine prevention in adults.

Research shows many prescription treatments can help prevent migraine in people who are candidates for treatment. However, other treatments used in some people have been shown not to be helpful.

DRUG WARNINGS

The US Food and Drug Administration has issued warnings for the following drugs:

Divalproex sodium: www.fda.gov/Safety/MedWatch/SafetyInformation/Safety-RelatedDrugLabelingChanges/ucm153869.htm

Topiramate: www.fda.gov/Drugs/DrugSafety/ucm245085.htm

Valproate: www.fda.gov/Drugs/DrugSafety/ucm261543.htm

WHAT IS MIGRAINE?

Migraine is a condition that involves recurring headaches. Each headache may last from four hours to two days. It can cause throbbing pain in the head. Other symptoms may include nausea (upset stomach), vomiting, and extreme sensitivity to light or sound. Most people with migraine have attacks that happen repeatedly. In some people, the headaches can be triggered by certain foods, drinks, or odors. Stress and release from stress also may trigger migraine attacks.

Migraine can interfere with daily life activities. It can be disabling. The person may feel unable to go to work or perform other daily tasks. If a person has a migraine headache and goes to work or performs activities anyway, performance may be impaired. For this reason, it is important to try to prevent migraine attacks. Talk with your doctor about strategies for avoiding them.

WHO CAN BENEFIT FROM PREVENTIVE TREATMENT?

Evidence suggests that migraine headaches often are not recognized or treated effectively in many people who have them. According to one study, about 38% of people who suffer from migraine attacks could benefit from preventive treatments. However, less than a third of those people currently use these treatments. Fortunately, in many people the frequency and severity of migraine attacks can be reduced with preventive treatment. In fact, some studies suggest migraine attacks may be reduced by more than half.

At the same time, it is important to be aware that not everyone with migraines is a candidate for preventive treatment. For example, people whose attacks are mild or occur infrequently may not qualify.

WHAT PRESCRIPTION DRUGS HELP PREVENT MIGRAINE ATTACKS?

Blood Pressure Drugs

Several blood pressure drugs have been studied for migraine prevention. Strong evidence shows metoprolol, propranolol, and timolol can help prevent migraine, and moderate evidence shows atenolol and nadolol can be helpful to reduce the frequency and/or intensity of attacks. There is weak evidence that candesartan, lisinopril, and nebivolol are helpful.

Other blood pressure drugs may not be effective for preventing migraine. Weak evidence shows acebutolol and telmisartan may not help. There is not enough evidence to show if bisoprolol or pindolol is helpful.

Depression Drugs

Moderate evidence shows amitriptyline and venlafaxine can help prevent migraine. There is not enough evidence to show if fluoxetine, fluvoxamine, or protriptyline is helpful.

In contrast, there is moderate evidence that clomipramine does not help prevent migraine.

Epilepsy Drugs

Some epilepsy drugs can help prevent migraine. Strong evidence shows divalproex sodium, sodium valproate, and topiramate can help prevent migraine. There is weak evidence that carbamazepine may be helpful.

Other epilepsy drugs may not be effective for preventing migraine. Strong evidence shows lamotrigine does not help prevent migraine. There is weak evidence that oxcarbazepine may not be helpful. There is not enough evidence to show if gabapentin is helpful.

Other Drugs

Weak evidence shows the alpha agonist guanfacine and the calcium channel blocker nifedipine may help prevent migraine. In contrast, there is weak evidence that the anxiety drug clonazepam and the arthritis drug nabumetone may not be helpful.

There is not enough evidence to show if the following drugs help prevent migraine:

- The alpha agonist clonidine
- The blood thinners acenocoumarol, Coumadin, and picotamide
- The calcium channel blockers nifedipine, nimodipine, and verapamil
- The carbonic anhydrase inhibitor acetazolamide
- The muscle relaxant cycloclamate

HOW CAN I KNOW WHICH DRUG IS RIGHT FOR ME?

There are several prescription drugs available with evidence to support their use. Before choosing a drug, it is important to discuss drug options with a doctor experienced in migraine prevention. It also is important to share with your doctor any other health conditions you may have.

Use of some drugs can lead to worsening of headaches.

A drug that works for one person may not help another person. Moreover, some drugs for preventing migraine can be costly. All drugs for preventing migraine have side effects. Discuss these matters with your doctor when choosing a treatment. Be aware that your doctor may need to monitor your treatment in the long-term. It is important to inform your doctor of all treatments you are taking, including those available over the counter. Your migraine headaches may worsen or improve over time. You also may experience general health or lifestyle changes. These may require adjusting the dose or changing to another drug.

At this time, there is not enough evidence to show how one drug compares with another. In addition, more research is needed to understand the long-term effects of drugs for preventing migraine.

This AAN and AHS guideline was endorsed by the American Osteopathic Association and the International Headache Society.

This statement is provided as an educational service of the American Academy of Neurology. It is based on an assessment of current scientific and clinical information. It is not intended to include all possible proper methods of care for a particular neurologic problem or all legitimate criteria for choosing to use a specific procedure. Neither is it intended to exclude any reasonable alternative methodologies. The AAN recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on all of the circumstances.

*After the experts review all of the published research studies, they describe the strength of the evidence supporting each recommendation:

Strong evidence = more than one high-quality scientific study

Moderate evidence = at least one high-quality scientific study or two or more studies of a lesser quality

Weak evidence = the studies, while supportive, are weak in design or strength of the findings

Not enough evidence = either different studies have come to conflicting results or there are no studies of reasonable quality