

# UPDATE: NSAIDS AND OTHER COMPLEMENTARY TREATMENTS FOR EPISODIC MIGRAINE PREVENTION IN ADULTS

This is a summary of the American Academy of Neurology (AAN) and American Headache Society guideline update regarding use of nonsteroidal antiinflammatory drugs (NSAIDs) and other complementary treatments for episodic migraine prevention.

**Please refer to the full guideline at [www.aan.com](http://www.aan.com) for more information, including definitions of the classifications of evidence and recommendations and the complete clinical context section.**

## DRUG WARNING

The following treatment has an associated US Food and Drug Administration warning: Petasites (butterbur): [www.accessdata.fda.gov/scripts/plantox/detail.cfm?id=23110](http://www.accessdata.fda.gov/scripts/plantox/detail.cfm?id=23110)

Are nonsteroidal antiinflammatory drugs (NSAIDs) or other complementary treatments effective for migraine prevention?	
<b>Histamines/Antihistamines/Leukotriene Receptor Antagonists</b>	
<b>Moderate evidence</b>	Histamine sc is probably effective and should be considered for migraine prevention ( <b>Level B</b> ). Montelukast is probably ineffective and should not be considered for migraine prevention ( <b>Level B negative</b> ).
<b>Weak evidence</b>	Cyproheptadine is possibly effective and may be considered for migraine prevention ( <b>Level C</b> ).
<b>NSAIDs</b>	
<b>Moderate evidence</b>	Fenoprofen, ibuprofen, ketoprofen, naproxen, and naproxen sodium are probably effective and should be considered for migraine prevention ( <b>Level B</b> ).
<b>Weak evidence</b>	Flurbiprofen and mefenamic acid are possibly effective and may be considered for migraine prevention ( <b>Level C</b> ).
<b>Insufficient evidence</b>	Evidence is inadequate or conflicting to support or refute the use of aspirin or indomethacin for migraine prevention ( <b>Level U</b> ).
<b>Clinical context</b>	Regular or daily use of selected NSAIDs for the treatment of frequent migraine attacks may exacerbate headache because of development of a condition called medication overuse headache. Therefore, use of aspirin, selected analgesics, and NSAIDs may exacerbate headache; use of these agents in migraine prevention studies may confound the clinical interpretation of the study results.
<b>Herbal Preparations, Vitamins, Minerals, and Other Interventions</b>	
<b>Strong evidence</b>	Petasites (butterbur) is established as effective and should be offered for migraine prevention ( <b>Level A</b> ).
<b>Moderate evidence</b>	Riboflavin, magnesium, and MIG-99 (feverfew) are probably effective and should be considered for migraine prevention ( <b>Level B</b> ).
<b>Weak evidence</b>	Coenzyme Q10 and estrogen are possibly effective and may be considered for migraine prevention ( <b>Level C</b> ).
<b>Insufficient evidence</b>	Evidence is inadequate or conflicting to support or refute the use of omega 3 or hyperbaric oxygen therapy for migraine prevention ( <b>Level U</b> ).

## CLINICAL CONTEXT\*

In a previous epidemiologic study, 38.7% of study participants had ever used a migraine preventive treatment, of which only 12.4% were current users and 17.2% were coincident users (taking a migraine preventive treatment for other reasons). The proportion of those who use NSAIDs or individual complementary treatments specifically for migraine prevention is unclear, and warrants further study. Additionally, the treatments reviewed herein are those available in the United States. The results from this and other guidelines are limited to those treatments available in the United States.

Additionally, studies assessing the efficacy of NSAIDs and complementary treatments for migraine prevention are limited and should be considered relative to other available pharmacologic therapies reviewed in a separate guideline available at [www.aan.com/guidelines](http://www.aan.com/guidelines).

Additionally, the clinical evidence for NSAIDs and complementary treatments for migraine prevention should be reviewed with caution because there are clear discrepancies in how patients were selected for study inclusion; how severe, frequent, or disabling their attacks were; and how severity was assessed. Also, these treatments are unregulated. There are few or no studies on how these medications should be taken. When patients are instructed or choose to take NSAIDs or complementary treatments for migraine prevention, it is important that they be followed over the course of treatment. Prospective long-term safety of many of these agents is not well studied specifically regarding their use as preventive migraine treatments.

It is reasonable also for clinicians to inquire about the doses being used and frequency of use of NSAIDs and complementary treatments. Frequent medication use or high dose levels may increase the risk of headache progression or medication overuse, which may lead to other secondary

health complications (e.g., gastrointestinal upset/bleeding with aspirin or NSAIDs or headache rebound with discontinuation of feverfew). Complete review and disclosure of coexisting conditions are warranted, as complementary or pharmacologic therapies taken for coexisting conditions (e.g., depression) may exacerbate headache. Because migraine is frequent in women of childbearing age, the potential for adverse fetal effects related to migraine prevention strategies is of particular concern. Little has been done to establish the long-term safety and efficacy of these agents during pregnancy or breastfeeding.

Additionally, when patients have unlimited access to over-the-counter medications, they may be unaware of the continued need for routine physician follow-up for a chronic illness such as migraine, as illness severity may progress or improve, often warranting medication changes. It also is important for patients to understand the magnitude of benefit that can be expected from preventive migraine therapies; moreover, patient education about migraine and appropriate management are important in successful patient care. For some patients, a 35% reduction in headache frequency or intensity may be deemed an insufficient level of improvement, thus leading them to risk dose escalation. Additionally, patients with migraine may need to be educated about appropriate use and risks of these agents.

Finally, recent studies suggest that some medications used for migraine may offer long-term protection against headache progression whereas other agents may elevate progression risk. Specifically, one epidemiologic study assessing medication use in the general migraine population reports that aspirin or ibuprofen use may protect against progression from episodic to chronic headache conditions (CDH). In contrast, opioid use was positively associated with CDH. Although conclusions are preliminary regarding the benefits and risks of selected agents for long-term use, studies suggest that these agents may play a significant role in headache progression and patterns, lending further emphasis to the importance of following patients closely, including regular assessment of NSAIDs, and other complementary treatments for migraine prevention.

**This AAN and AHS guideline was endorsed by the American Osteopathic Association.**

*\*See the published guideline for the complete clinical context section.*

This is an educational service of the American Academy of Neurology. It is designed to provide members with evidence-based guideline recommendations to assist the decision making in patient care. It is based on an assessment of current scientific and clinical information and is not 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, and are based on the circumstances involved. Physicians are encouraged to carefully review the full AAN guidelines so they understand all recommendations associated with care of these patients.



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