

**Scope and Target Population:**

Patients age 12 years and older who present with headache. For the purpose of this guideline, pain that primarily involves the back of the neck and only involves the head to a limited extent is not considered a headache.

**Aims:**

1. Increase the accurate diagnosis of headaches in patients age 12 years and older.
2. Improve education for patients with headache.
3. Increase percentage of patients who receive appropriate prophylactic treatment based on headache type (i.e., migraine, tension-type, cluster, menstrual-associated migraine headache and chronic daily headache).
4. Increase the functional status of migraineurs.
5. Increase the rate of treatment plans or adherence to plan for mild, moderate and severe headaches for migraineurs.
6. Avoid the long-term prescribing of opiates and barbiturates for the treatment of migraines.
7. Increase the percentage of migraineurs with appropriate acute and prophylactic treatment based on level of severity (i.e., mild, moderate or severe headache).

**Clinical Highlights:**

- Headache is diagnosed by history and physical examination with limited need for imaging or laboratory tests.
- Warning signs of possible disorder other than primary headache:
  - Subacute and/or progressive headaches that worsen over time (months)
  - A new or different headache
  - Any headache of maximum severity at onset
  - Headache of new onset after age 50
  - Persistent headache precipitated by a Valsalva maneuver
  - Evidence such as fever, hypertension, myalgias, weight loss or scalp tenderness suggesting a systemic disorder
  - Presence of neurological signs that may suggest a secondary cause
  - Seizures
- Migraine-associated symptoms are often misdiagnosed as "sinus headache" by patients and providers. Most headaches characterized as "sinus headaches" are migraines.
- Early treatment of migraines with effective medications improves a variety of outcomes including duration, severity, and associated disability.
- Drug treatment of acute headache should generally not exceed more than two days per week on a regular basis. More frequent treatment other than this may result in medication-overuse chronic daily headaches.
- Inability to work or carry out usual activities during a headache is an important issue for migraineurs.
- Prophylactic therapy should be considered for all patients.
- Migraines occurring in association with menses and not responsive to standard cyclic prophylaxis may respond to hormonal prophylaxis with the use of estradiol patches, creams or estrogen-containing contraceptives.
- Women who have migraines with aura have a substantially higher risk of stroke with the use of estrogen-containing contraceptive compared to those without migraines. Headaches occurring during perimenopause or after menopause may respond to hormonal therapy.
- Most prophylactic medications should be started in a low dose and titrated to a therapeutic dose to minimize side effects and maintained at target dose for 8-12 weeks to obtain maximum efficacy.

**Additional Background:**

This guideline discusses headache disorders most commonly seen in primary care offices. It is not intended as a comprehensive discussion of diagnosis and treatment of all headache syndromes, since many headaches are rare and felt best treated by headache specialists or neurologists with specialization in headache. It is intended as a useful algorithm for primary care providers to help with their diagnosis and treatment of four main types of headache: migraine, tension-type headache, cluster headache and chronic daily headache. This guideline is necessarily long and may be considered by some to be cumbersome. However, a wealth of information pertaining to headaches is covered, along with the typical medications. As there are multiple easy-to-access information sources available that contain current detailed drug information, drug tables in the appendices highlight only those selected drugs whose dosing, side effects and contraindications might otherwise be challenging to locate.

For most headaches, diagnosis is made on the basis of history and physical exam with no imaging or laboratory assistance. There are, however, causes for concern listed in the algorithms, which may direct providers to specific testing or referral.

Headache is a very common problem presenting to primary care providers, with about 3% of emergency room visits and 1.3% of outpatient visits being due to headaches. While tension-type headache is the most common type of headache overall, migraine is the most common headache type seen in clinical practice, with tension-type headache and cluster headaches being much less common in provider's offices. Therefore migraine is the first and primary headache type reviewed.

Migraine is a genetically influenced chronic brain condition marked by paroxysmal attacks of moderate to severe throbbing headache. About 324 million persons suffer from migraine worldwide according to the World Health Organization. Nearly 18% of women and 8% of men in the United States suffer from migraine in any given year. Typically the disorder begins in adolescence and young adults but the lifetime cumulative incidence is 43% for women and 18% for men. Over 25% of migraine sufferers have more than three headache days per month.

Women headache sufferers may present with a hormonal component to the course of headaches over their lifetime, and an algorithm for treatment is also included. Headaches over three times a month are often treated with prophylactic treatment as overuse of medication for acute migraine may actually cause chronic headache.