

Headache Assessment: General Guidelines for Referring Providers

Assessment of lifestyle factors: Ask about sleep, diet, hydration and stressors

- If not sleeping well, review sleep hygiene. Encourage at least 8 to 10 hours of sleep/night for teens and more for younger children (<https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/American-Academy-of-Pediatrics-Supports-Childhood-Sleep-Guidelines.aspx>).
- If there is snoring with sleep disruption, particularly with morning headaches, consider ENT or Sleep Medicine referral.
- If stress, anxiety or depression is contributing to headaches, consider counseling, mental health evaluation and/or cognitive behavioral therapy (CBT).
- Eliminate excessive caffeine intake.
- Avoid skipping meals and encourage good hydration.
- Keep a headache diary with a dietary log to identify triggers or patterns.
- Patients with frequent headaches should have a complete eye exam. Consider referral to local eye provider (optometrist or ophthalmologist).
- Link to the Seattle Children's headache handout (<https://www.seattlechildrens.org/pdf/PE887.pdf>).

Rescue treatments

- First line: over-the-counter (OTC) medications (ibuprofen, acetaminophen or naproxen) as soon as possible after onset of significant headache or migraine
- Avoid using OTC medications more than 10 days/month to reduce the risk of medication overuse syndrome
- Treat intense migraine-associated nausea or vomiting with ondansetron or prochlorperazine with diphenhydramine
- Consider rizatriptan for acute treatment for migraine without aura (approved for patients >6 yr)
- 2019 AAN Guidelines for Acute Treatment of Pediatric Migraine (<https://www.aan.com/Guidelines/Home/GetGuidelineContent/970>)

Preventive supplements for migraine

There is limited/weak evidence for the use of these for migraine. These can take 3 to 12 weeks to take effect.

- Riboflavin (vitamin B₂) 300 to 400 mg/day
- Melatonin 2 mg/day given at bedtime
- Others: coenzyme Q10, magnesium, Migrelief or Migrelief Jr.

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Preventive medications for migraine

Consider a daily migraine preventive medication if the patient is having at least four disabling migraine days per month. Preventive therapies can take 3 to 12 weeks to take effect. Goal doses are listed here. Evidence for efficacy is limited, so also consider (or discuss) potential side effects of therapy.

- 2019 AAN Guidelines for Preventive Treatment of Pediatric Migraine (<https://www.aan.com/Guidelines/Home/GetGuidelineContent/971>)
- Topiramate
 - 0.5 to 1 mg/kg/day given at night or bid; increase stepwise if needed up to 100 mg/day
- Amitriptyline – often causes sedation, so it is useful for those with insomnia
 - 0.5 to 1 mg/kg at bedtime; consider electrocardiogram (ECG) to rule out prolonged QT syndrome, up to 100 mg/day
- Propranolol – also can cause sedation; avoid in patients with asthma
 - 1 mg/kg/day long-acting at bedtime up to 60 to 80 mg/day
- Cyproheptadine – can cause sedation; useful for young children with prominent vomiting
 - Typically 2 to 4 mg once per day at bedtime, may go up to 6 to 8 mg for larger teens if tolerated

Neuroimaging

There are a few indications for neuroimaging: new progressive headache type, occipital headaches (rule out Chiari malformation), an abnormal neurologic exam or headaches that are progressively getting worse. Otherwise, neuroimaging is rarely indicated for those with recurrent headaches for >6 months and a normal exam. MRI (magnetic resonance imaging) is preferred over CT (computed tomography) because of the radiation associated with the latter and better detail is obtained with MRI.

Additional resources

- Headache Relief Guide for Teens, Parents and Providers: <http://www.headachereliefguide.com/>
- SCH Headache Guide: Headache Help for Your Child or Teen: <https://www.seattlechildrens.org/pdf/PE887.pdf>
- Biofeedback Apps for Relaxation, Sleep and Anxiety: <https://www.seattlechildrens.org/pdf/PE2628.pdf>
- 504 Plan for Headaches Template: http://child.seattlechildrens.org/uploadedFiles/Child/People_and_Places/Programs_and_Services/Patient_Education_and_Communications/Patient_Education_Toolkits/PE2828.pdf
- Childhood Headache: A Brief Review, Blume HK, *Pediatr Ann.* 2017 Apr. 1;46(4):e155-e165.,
- Pediatric and Adolescent Headache. Gelfand AA. *Continuum (Minneapolis, Minn).* 2018 Aug;24(4, Headache):1108-1136.