

# Pediatric Migraine



## Diagnostic "Pearls"

- For kids, drawing may be easier than talking about migraine
- This approach tends to produce very accurate diagnoses
- An MRI may be needed in children:
  - o Younger than age 6
  - o With occipital headaches
  - o With headaches that wake up a child from sleep
  - o With new onset headache or abnormal neurological examination



## A Common Problem

- Headache affects:
  - o 37% to 51% of 7-year-olds



- o 57% to 82% of 15-year-olds



- Recurrent migraine affects:
  - o ~2.5% to 4.0% of children under age 8
  - o ~10% of 5- to 15-year-olds
- Boys are far more likely to have migraine than girls at a very young age
- By the preteen and teen years, prevalence in girls sharply surpasses boys
- Migraine prevalence increases to adult levels throughout the late-teen years



## Different in Children and Adolescents

- Children and adolescents are not mini-adults
- Migraine symptoms and presentation differ from adults:
  - o Attacks can last 1 or 2 hours, not 4
  - o Pain often affects both sides of the head
- Treatments may not work the same way

## Goals of Treatment

1. Reduce headache frequency, severity, duration, and disability
2. Reduce reliance on poorly tolerated, ineffective, or unwanted acute medications
3. Improve quality of life
4. Avoid acute headache medication escalation
5. Educate and enable patients to self-manage their condition
6. Reduce headache-related distress and psychological symptoms

## Balanced Treatment Plans

- To achieve treatment goals, balanced treatment plans are needed
- Balanced plans include medical, biobehavioral, and nonpharmacologic treatments
  - o Medical – acute and preventive medications
  - o Biobehavioral – biofeedback, cognitive behavioral therapy, stress management, sleep hygiene, exercise, and dietary modifications
  - o Nutraceuticals – vitamin B2, coenzyme Q10 and vitamin D



- Migraine can prevent or limit school and other social activities significantly more than those who don't have migraine
- A tool called PedMIDAS\* - which stands for PEDIatric Migraine DisAbility Score - can be used to assess migraine disability in younger patients

## In the last three months, how many...

1. Full days of school were missed due to headaches?
2. Partial days of school were missed due to headaches?
3. Days did you function at less than half your ability in school because of a headache?
4. Days were you not able to do things at home (e.g., chores, homework, etc.)
5. Days you did not participate in other activities due to headache (e.g., play, go out, sports, etc.)
6. Days did you participate in these activities, but functioned at less than half your abilities?

## Add them up!

- The number of days are added to determine migraine-related disability
  - o Below 10 means little to none
  - o 11-30 means mild
  - o 31-50 means moderate
  - o Above 50 means severe

\*PEDIatric Migraine DisAbility Score

Follow us on Facebook:  
<https://www.facebook.com/pages/American-Headache-Society/67380083618>  
<https://www.facebook.com/AHMAorg>  
<https://www.facebook.com/groups/MoveAgainstMigraine>

Follow us on Twitter:  
[@ahsheadache](https://twitter.com/ahsheadache) [@amfmigraine](https://twitter.com/amfmigraine) [@ahmaorg](https://twitter.com/ahmaorg) [@headachejournal](https://twitter.com/headachejournal)

[www.AmericanHeadacheSociety.org](http://www.AmericanHeadacheSociety.org) - American Headache Society (AHS) • [www.AmericanMigraineFoundation.org](http://www.AmericanMigraineFoundation.org) - American Migraine Foundation (AMF)  
<http://ahma.memberclicks.net/> - American Headache and Migraine Association (AHMA) • [www.headachejournal.org](http://www.headachejournal.org) - Headache: The Journal of Head and Face Pain

### References

1. Calhoun AH, Ford S, Finkel AG, Kahn KA, Mann JD. The prevalence and spectrum of sleep problems in women with transformed migraine. *Headache*. 2006;46:604-610.
2. Foley KA, Cady R, Martin V, Adelman J, Diamond M, Bell CF, et al. Hu, XH. Treating early versus treating mild: timing of migraine prescription medications among patients with diagnosed migraine. *Headache*. 2005; 45(5): 538-545.
3. Fuller-Thomson E, Schrumm M, & Brennenstuhl S. Migraine and despair: factors associated with depression and suicidal ideation among Canadian migraineurs in a population-based study. *Dep Res Treat*. 2013.
4. Fomaro M, and B. Stubbs, A meta-analysis investigating the prevalence and moderators of migraines among people with bipolar disorder. *J Affect Disord*. 2015. 178: 88-97.
5. Kelman L. The triggers or precipitants of the acute migraine attack. *Cephalalgia*. 2007; 27(5): 394-402.
6. Lipton RB, Buse DC, Hall CB, Tennen H, DeFreitas TA, Borkowski TM, et al. Haut SR. Reduction in perceived stress as a migraine trigger Testing the "let-down headache" hypothesis. *Neurology*. 2014; 82(16): 1395-1401.
7. Martin PR, Callan M, Reece J, MacLeod C, Kaur A, Gregg K, & Goatsby PJ. Behavioral management of the triggers of recurrent headache: A randomized controlled trial. *Behav Res Ther*. 2014; 61: 1-11.
8. Nicholson RA, Houle TT, Rhudy JL, Norton PJ. Psychological risk factors in headache. *Headache*. 2007 Mar 1;47(3):413-26.
9. Penzien DB, Itby MB, Smitherman TA, Rains JC, Houle TT. Well-established and empirically supported behavioral treatments for migraine. *Curr Pain Headache Rep*. 2015 Jul 1;19(7):1-7.
10. Preutka SJ. What turns on a migraine? A systematic review of migraine precipitating factors. *Curr Pain Headache Rep*. 2014; 18(10): 1-6.
11. Rains JC, Penzien DB, McCrory DC, & Gray RN. Behavioral headache treatment: history, review of the empirical literature, and methodological critique. *Headache*. 2005; 45(5): 592-610.
12. Rains JC, Poceta J. Headache and sleep disorders: Review and implications for headache management. *Headache*. 2006;46:1344-1363.
13. Sancisi E, Cevoli S, Vignatelli L, et al. Increased prevalence of sleep disorders in chronic headache: A case-control study. *Headache*. 2010;50:1464-1472.
14. Seng EK, Rains JA, Nicholson RA, & Lipton RB. (2013). Improving medication adherence in migraine treatment. *Curr Pain Headache Rep*. 2013; 13(1): 1-7.
15. Smitherman TA, Kolivas ED, Bailey JR. Panic disorder and migraine: comorbidity, mechanisms, and clinical implications. *Headache*. 2013 Jan 1;53(1):23-45.
16. Wöber C, Brannath W, Schmidt K, Kapitan M, Rudel E, Wessely P, & Wöber-Bingöl C. (2007). Prospective analysis of factors related to migraine attacks: the PAMINA study. *Cephalalgia*, 27(4), 304-314.
17. Peck KR, Smitherman TA, & Baskin SM. Traditional and alternative treatments for depression: implications for migraine management. *Headache*. 2015; 55(2): 351-355.
18. Woldeamanuel YW, Cowan RP. The impact of regular lifestyle behavior in migraine: a prevalence case-referent study. *J Neurol*. 2016; 263: 669-676. World Health Organization. Headache disorders. Fact sheet no.277, 2012.