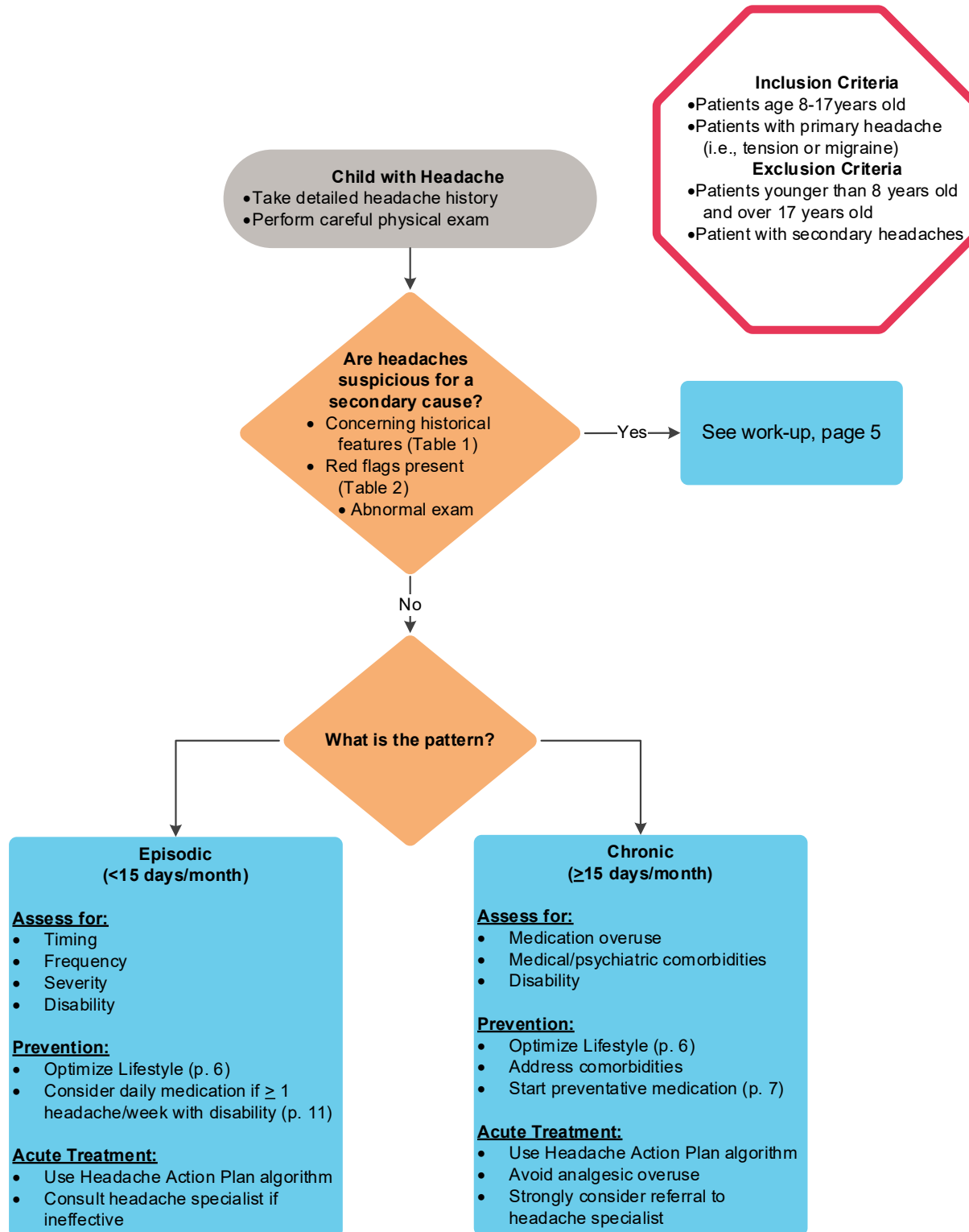


HEADACHE

For the Outpatient Setting

ALGORITHM 1. Approach to Headache Evaluation



ALGORITHM 2. Headache Action Plans

- Each of the plans listed below is mutually exclusive
- Start with the most conservative plan first (Plan A)
 - Use Plan C and D for migraines only
- Adopt a more aggressive plan sequentially if the preceding plan does not provide complete relief of symptoms after **two** attempts

!

If patient fails 3rd line treatment on any plan consider consulting neurology and/or referring patient to an emergency department

- Inclusion criteria**
- Patients age 8 – 17 years old
 - Patients with primary headache (i.e., tension or migraine)
- Exclusion criteria**
- Patients younger than 8 years old and over 17 years old
 - Patient with secondary headaches
 - Hemiplegic migraine
 - Migraine with brainstem aura

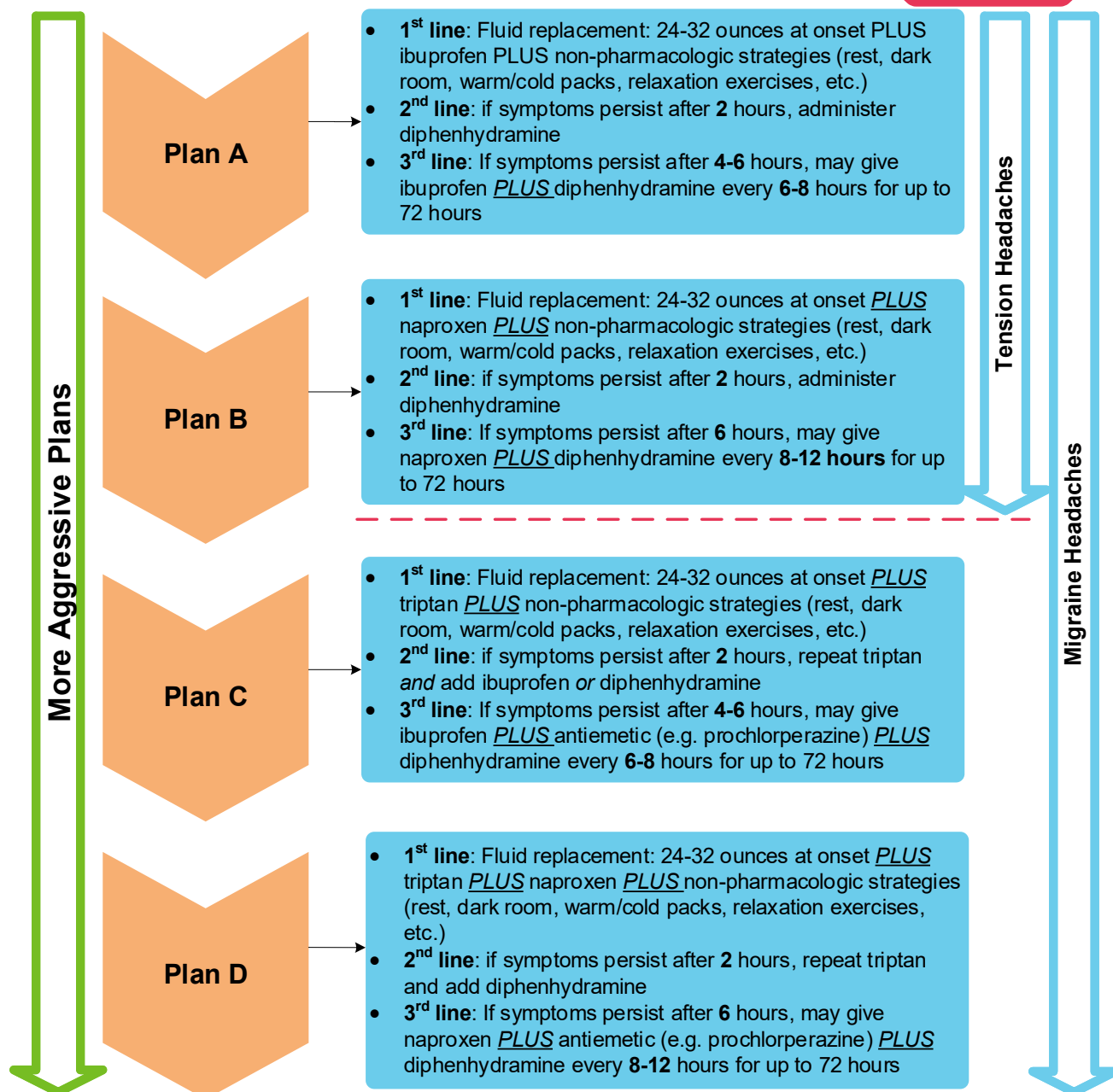


TABLE OF CONTENTS

[Algorithm 1 Approach to Headache Evaluation](#)

[Algorithm 2 Headache Action plan](#)

[Target Population](#)

[Background | Definitions](#)

[Diagnostic Criteria](#)

Initial Evaluation- See [Clinical Assessment](#)

[Clinical Management](#)

[Laboratory Studies | Imaging](#)

[Therapeutics](#)

[Provider Tools](#)

[Parent | Caregiver Education](#)

[Follow-up](#)

[Appendix A. Frequently Asked Questions for Providers](#)

[Appendix B. Headache Intake Questionnaire](#)

[Appendix C. PedMIDAS Disability Questionnaire](#)

[Appendix D. Headache Diary](#)

[Appendix E. Headaches in Children Handout](#)

[References](#)

[Clinical Improvement Team](#)

TARGET POPULATION

Inclusion Criteria

- Patients age 8 to 17 years old
- Patients with primary headache (i.e., tension or migraine)

Exclusion Criteria

- Patients younger than 8 years old and over 17 years old
- Patient with secondary headaches

Scope

This pathway is intended for use in outpatient and primary care settings

BACKGROUND | DEFINITIONS

- Approximately 58% of children and adolescents experience recurrent headaches and 7.8% have migraine¹
- There are different theories about the cause of headaches
- About 60% of children have a positive family history, suggesting genetic factors are partly responsible

- Other possible reasons for migraine include blood vessel sensitivity, brain and nervous system changes, and serotonin system abnormalities. Medicines used to treat headache disorders often work on these pathways

DIAGNOSTIC CRITERIA

International Headache Classification of Headache Disorders-III beta2

Migraine:

At least five attacks in a lifetime fulfilling criteria A-C

- A. Headache attacks lasting 2 to 72 hours (untreated or unsuccessfully treated)
 - Warnings, called auras, may start before the headache in up to 20% of migraine sufferers. These auras can include blurry vision, flashing lights, spots, unilateral numbness, or unilateral sensory changes and usually occur 5 to 60 minutes before the onset of the headache.
- B. Headache attack has at least two of the following characteristics:
 - Unilateral or bilateral location
 - Pulsating/throbbing quality
 - Moderate or severe pain intensity
 - Aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs)
- C. During headache at least one of the following:
 - Nausea or vomiting
 - Photophobia AND phonophobia (can be inferred from behavior)
- D. Not attributed to another disorder

Tension-type headache (TTH):

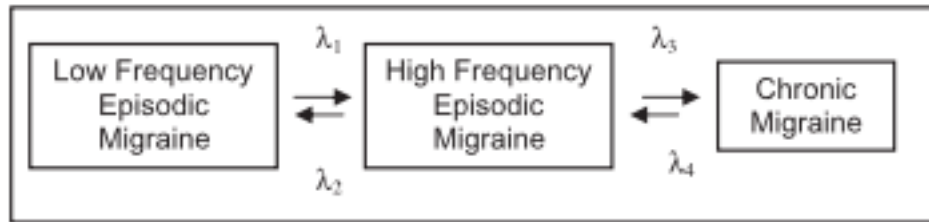
At least ten attacks fulfilling criteria A-C

- A. Headache attacks lasting 30 minutes to 72 hours (untreated or unsuccessfully treated)
- B. Headache attack has at least two of the following characteristics:
 - Bilateral location
 - Band / pressure quality
 - Mild to moderate pain intensity
 - Not aggravated by routine physical activity (e.g., walking or climbing stairs)
- C. During headache:
 - No nausea or vomiting
 - Can have photophobia or phonophobia, but not both
- D. Not attributed to another disorder

Chronic:

- Both migraines and tension-type headaches can become chronic, meaning they occur at least 15 days per month for greater than 3 months²

- Approximately 1-2% of all children and adolescents suffer from chronic headaches. Approximately 2.5% of individuals with episodic migraine will transform to chronic migraine every year. Risk factors for migraine “chronification” include obesity, snoring, comorbid pain conditions, head or neck injury, and mood disorder³
- The pattern of progression typically escalates over time from low-frequency episodic migraine (< 9 days per month) to high-frequency episodic migraine (9-14 days per month) to chronic migraine (≥15 days per month)⁴



Migraine progression and remission patterns (Bigal & Lipton, 2008)

- Chronic headaches can also result from taking acute medication more than 3 times per week to treat headache attacks (e.g., acetaminophen, ibuprofen, caffeine, opioids, butalbital, and combination analgesics). These headaches are called *medication overuse headaches*. The most effective way to make these headaches better is to stop taking pain medicines altogether for 2 to 3 weeks. After that time, use of pain relievers should be limited to no more than 2 to 3 times per week⁵.

CLINICAL ASSESSMENT

History

- The goal of the history is to help distinguish primary headache disorder (migraine or tension-type) from secondary headache disorder (increased ICP, tumor, etc.)^{5,6}
- Utilize the [Headache Intake Questionnaire](#) for families to fill out prior to appointment or by yourself during history taking.
- Assess the impact of the child’s or adolescent’s headaches on their ability to function normally. [PedMIDAS](#) is a useful to measure baseline disability and to determine if acute and preventative interventions are working.⁵

PedMIDAS Score Range	Disability Grade
0 to 10	Little to none
11 to 30	Mild
31 to 50	Moderate
Greater than 50	Severe

Physical Examination

- Vital signs, including blood pressure and temperature
- Palpation of the head and neck to assess for sinus tenderness, thyromegaly, muscle tightness, or nuchal rigidity⁵
- Head circumference (even in older children)
- Skin assessment for neurocutaneous syndrome, particularly neurofibromatosis and tuberous sclerosis
- Detailed neurological examination with particular attention to fundoscopic examination, eye movements, head tilt, finger-nose-finger testing for dysmetria, and tandem (heel-toe) gait for ataxia.

Not needed	Neuroimaging is not routinely recommended in children with recurrent headache & normal exam
Consider	Significant change from previously stable pattern
	Signs or symptoms of increased intracranial pressure
	Awakens child from sleep or causes AM vomiting
	Precipitated by Valsalva (cough, sneeze, bending or with exertion)
	Worsening headache within 3 months of head trauma
	Migraine with brainstem aura (dizziness, tinnitus, diplopia, ataxia)
	Hemiplegic migraine
	Compromised immunity
	History of malignancy
	Vomiting without cause
Recommended	Abnormal exam
	Sudden severe headache
	Associated seizures
	Chronic progressive pattern (worsens over months)
	Persistent confusion or altered consciousness

NOTE: More than 94% of children with brain tumors have objective neurological findings on exam⁷

LABORATORY STUDIES | IMAGING

Diagnostic tests are only indicated if they will change outcome

In general, most children with recurrent headaches require no diagnostic testing for clinical assessment. Utilize red flags to guide diagnostic testing^{5,6}. The more common red flags are listed below in [Table 2](#).

• Young age (<5 y/o)
• New onset or worsening headache
• Postural headache
• Posteriorly located headache
• Focal neurologic deficit
• Altered mental status (AMS)
• Fever
• Nighttime awakening
• Vomiting
• Early morning headache and or vomiting
• Neurocutaneous stigmata

Neuroimaging

Computed tomography (CT) scanning usually not indicated in a child with recurrent headaches and normal exam^{6,7}.

Consider when the following are present:

- Acute “worst headache of life” (WHOL)
- Thunderclap headache
- New focal neurological deficit is currently present on examination with acute headache
- Intractable vomiting
- Papilledema
- Fever

Magnetic resonance imaging (MRI)

If one of more red flags (listed in [Table 2](#)) are present and there is concern for a tumor or other structural abnormality then consider obtaining an MRI without contrast^{5,6}.

- A single occurrence of nighttime awakening of headache in a child with recurrent headaches is not alarming, but a child with a majority of headaches occurring only at nighttime would be worrisome.
- Several red flags may be more predictive of underlying neurological etiology such as younger age, focal neurological deficit, and posteriorly-located headache.

Lumbar Puncture

- Mandatory in febrile patients with nuchal rigidity, signs of increased intracranial pressure, or lateralizing features^{5,6}.
- If the patient’s mental status is altered, papilledema is present, or focal findings are evident, cranial imaging is warranted before lumbar puncture⁶.
- Measurement of opening pressure is recommended to aid in diagnosis⁶.

Electroencephalogram (EEG)

- Of limited use in the routine evaluation of headache in children^{5,6}
- May be warranted if headache is fleeting and is associated with alteration of consciousness or abnormal movement, where the differential diagnosis will include complex partial seizure disorders⁶

CLINICAL MANAGEMENT

Behavioral modification

All children need to be counseled on behavior modification as “headache hygiene”—maintaining healthy habits to prevent headaches. These are found in [Caregiver Education](#) but are summarized below⁵:

1. **Fluids:** Drink enough fluid (at least 6 to 8 glasses of water per day) and avoid caffeine.
2. **Sleep:** 8 to 10 hours of sleep each night. Go to bed at the same time and awaken at the same time each day to keep a regular sleep schedule.
3. **Nutrition:** Consume balanced meals at regular hours and do not skip meals. Triggers are different for each individual. Possible food triggers include aged cheese, artificial sweeteners, caffeine, chocolate, citrus fruits, cured meats (packaged lunchmeats, sausage, pepperoni), MSG, nuts, onions, and salty foods.

4. **Exercise/stretching:** At least 45 minutes of aerobic activity and 5 to 10 minutes of stretching every day.
5. **Stress:** Stress is the number one trigger for children. Consider stress management, counseling, or relaxation techniques available on web sites such as dawnbuse.com, headachereliefguide.com and anxietybc.com.
6. **Electronics use:** No more than 2 hours of non-academic computer time per day and none 1 hour prior to bed.

Abortive/Acute

See Table 3. Acute Outpatient Medications

The U.S. Headache Consortium identified the following goals for successful treatment of acute migraine⁹:

1. Treat attacks rapidly and consistently, and without recurrence
2. Restore the patient's ability to function
3. Minimize the use of back-up and rescue medications
4. Optimize self-care and reduce subsequent use of resources
5. Cost-effective for overall management
6. Have minimal or no side effects

General Recommendations⁵

1. Create a treatment plan for home/school acute management
 - Consider including a component of non-pharmacologic options (see below)
 - Consider including fluid replacement as part of first line treatment (if not nauseated or vomiting)
 - Have a first line medication to take at onset and a second line to take 2 hours later for continued headache
 - First line therapy should not contain a sedating medication so child can return back to school work
 - Second line therapy may contain a sedating medication and child should rest and avoid activity when possible
2. The key is to treat with an adequate dose at onset of headache
3. If using a Triptan: it is most effective to take it at onset of headache. Consider delivery route. Intranasal route may be more effective than tablets with patients with significant nausea or vomiting, headache severity peaks quickly, or headache is present upon waking.
4. Start with monotherapy and progress to combinations of acute agents if monotherapy is ineffective
5. Abortive treatment should generally be limited to only 2 to 3 times per week. Consider changing the Headache Action Plan if more frequent doses are needed as this may lead to medication overuse headache (i.e. rebound headache)
6. If acute headaches are not relieved by oral medicines and last more than 72 hours, more aggressive therapies (IV medications) may be required to abort this specific attack

USE HEADACHE ACTION PLAN ALGORITHM

Non-pharmacologic options

- Fluid replacement: Sports drink without caffeine (such as Powerade®, Gatorade®, etc.), coconut water, or plain water
- Rest
- Darken room
- No television, cell phone, etc.
- Relaxation techniques
- Warm or cold packs

THERAPEUTICS

Table 3. Acute Outpatient Medications

Medication	Form	Dosage	Maximum dose	Frequency	Formulations	Side effects
NSAIDs						
Ibuprofen (Motrin®/Advil®)	PO	10 mg/kg/dose	400-800 mg. Maximum daily dose 1200 mg / 24 hours	Q 6-8 hours	Chew: 100 mg Tab: 200 mg Syrup: 100 mg/5 ml	GI bleeding, GI Ulcers, decreased platelet function
Naproxen (Aleve®/Naprosyn®)	PO	5-7 mg/kg/dose	250-500 mg. Maximum daily dose 1000 mg / 24 hours	Q 8-12 hours	Susp: 125 mg/ml Tab: 220, 250, 375, 500 mg.	
Acetaminophen (Tylenol®) (oral)	PO	10-15 mg/kg/dose	650-1000 mg. Do not exceed 5 doses in 24 hours; maximum daily dose (oral or rectal): 75 mg/kg/day not to exceed 4000 mg / 24 hours	Q 4-6 hours	Susp: 160 mg/5 ml Tab: 80, 325, 500 mg	Hepatic toxicity
Acetaminophen (Tylenol®) (rectal)	PR	10-20 mg/kg/dose	650 mg. Do not exceed 5 doses in 24 hours; maximum daily dose (oral or rectal): 75 mg/kg/day not to exceed 4000 mg / 24 hours	Q 4-6 hours	Rectal: 60, 120, 325, 650 mg	Hepatic toxicity
Antiemetics*						
Ondansetron (Zofran)	PO	0.1 mg/kg/dose	8 mg	Q 6-8 hours	Syrup: 4mg/5mL Tab: 4, 8 mg ODT: 4, 8 mg	Blurred vision, dizziness, drowsiness, anxiety or agitation, tachycardia
Prochlorperazine (Compazine®) (oral)	PO	0.1 mg/kg/dose	10 mg	Q 6-8 hours	Syrup: 5mg/mL Tab: 5,10,25 mg	Blurred vision, akathisia, dystonic reaction
Prochlorperazine (Compazine®) (Rectal)	PR	0.1 mg/kg/dose	10 mg	Q 6-8 hours	Rectal: 2.5, 5,10 mg	Blurred vision, akathisia, dystonic reaction
Promethazine (Phenergan®) (Oral)	PO	0.25 to 1 mg/kg/dose	25 mg	Q 4-6 hours	Syrup: 6.25mg/5 ml, 25 mg/5 mL Tab scored: 12.5, 25, 50 mg	Blurred vision, akathisia, dystonic reaction
Promethazine (Phenergan®) (Rectal)	PR	0.25 to 1 mg/kg/dose	25 mg	Q 4-6 hours	Rectal: 12.5, 25, 50 mg	Blurred vision, akathisia, dystonic reaction
Antihistamines						
Diphenhydramine (Benadryl®)	PO	0.5 mg/kg/dose	50 mg	Q 6 hours	Syrup: 12.5mg/5mL Tab: 25, 50 mg	Nausea, blurred vision, xerostoma

*Be sure to administer diphenhydramine with dopamine-blocking anti-emetics to minimize risk of akathisia and dystonic reactions

Table 3. Acute Outpatient Medications (continued)

Medication	Form	Dosage	Maximum dose	Frequency	Formulations	Cost*	Side effects
<p>Note: Do not administer dihydroergotamine (nasal DHE or IV DHE) within 24 hours of the last dose of a triptan. Triptans: Triptans should not be used more than two times per week with a maximum of six times per month to avoid overuse. FDA approved: Rizatriptan[†] ≥ 6 years old, almotriptan ≥ 12 years old, zolmitriptan ≥ 12 years old, and sumatriptan/naproxen ≥ 12 years old. Although other triptans are commonly prescribed and may be effective, they are not FDA approved and their safety has not been established in pediatric patients. A consultation with a neurologist is recommended prior to prescribing these medications. [†]Children (< 17 years old) on propranolol: Do not use rizatriptan if < 40 kg; limit single and daily dose to 5 mg if ≥ 40 kg.</p>							
Almotriptan (Axert®)	PO	6.25 or 12.5 mg	25 mg/24 hours	May repeat once after 2 hours	Tab: 6.25, 12.5mg	Generic \$\$-\$\$\$ Brand \$\$\$-\$\$\$\$	Nausea, somnolence, dizziness
Eletriptan (Relpax®)	PO	≥ 50 kg: 20 or 40 mg	80 mg/24 hours	May repeat once after 2 hours	Tab: 20,40 mg	Generic N/A Brand \$\$\$	Nausea, weakness, dizziness, paresthesia
Frovatriptan (Frova®)	PO	2.5 mg	5 mg/24 hours	May repeat once after 2-4 hours	Tab: 2.5 mg	Generic \$\$\$ Brand \$\$\$\$	Flushing, dizziness, fatigue, xerostoma, paresthesia
Naratriptan (Amerge®)	PO	1 or 2.5 mg	5 mg/24 hours	May repeat once after 4 hours	Tab: 1, 2.5 mg	Generic \$ Brand \$\$\$-\$\$\$\$	Nausea, dizziness, pain (CNS)
Rizatriptan [†] (Maxalt®)	PO	< 40 kg: 5 mg ≥ 40 kg: 10 mg	< 40 kg: 10 mg/24 hours ≥ 40 kg: 20 mg/24 hours	May repeat once after 2 hours	ODT: 5, 10 mg Tab: 5, 10 mg	Generic \$ Brand \$\$\$	Nausea, dizziness, weakness, flushing
Sumatriptan (Imitrex®)	PO	25, 50 or 100 mg	100 mg/24 hours PO	May repeat once after 2 hours	Tab: 25, 50, 100 mg	Generic \$ Brand \$\$\$	Nausea, dizziness, weakness, flushing
	IN	5, 10 or 20 mg	40 mg/24 hours intranasal		Intranasal: 5, 20mg	Generic \$\$\$ Brand \$\$\$	
	SC	0.06-1 mg/kg (max: 6 mg)	12 mg/24 hours SC		SC: 4 mg/0.5 ml, 6 mg/0.5 ml	Generic \$\$ Brand \$\$\$	
Sumatriptan/ Naproxen (Treximet®)	PO	10 mg sumatriptan/60 mg naproxen	85 mg sumatriptan/500 mg naproxen	1 dose every 24 hours	Tab: 85 mg sumatriptan / 500 mg naproxen, 10 mg sumatriptan / 60 mg naproxen	Generic N/A Brand \$\$\$\$	Nausea, dizziness, chest pain and tightness, weakness, paresthesia, xerostoma
Zolmitriptan (Zomig®)	PO	2.5 or 5 mg	10 mg/24 hours	May repeat once after 2 hours	Tab: 2.5, 5 mg ODT: 2.5, 5 mg	Generic \$ Brand \$\$\$	Nausea, dizziness, chest pain and tightness, weakness, paresthesia
	IN	2.5 or 5 mg			Intranasal: 2.5, 5mg	Generic N/A Brand \$\$\$	
Dihydroergotamine (Migranal®)	IN	0.5 mg in each nostril for a total dose of 1 mg	3 mg/24 hours Do not exceed 4mg in one week	May repeat every 15 min to max of 3 doses	Intranasal: 4mg/mL	Generic \$\$\$\$ Brand \$\$\$\$	Vasoconstriction, flushing, nausea, diarrhea.

* Legend: \$=\$10-50, \$\$=\$50-99, \$\$\$=100-500, \$\$\$\$= >\$500. Data obtained from www.goodrx.com was accurate as of 7/7/2017. Cost based on price per standard package (usually 6-12 doses). Lower dose tablets are usually cheaper than higher dose tablets. Families should compare prices before having Rx filled as prices can vary widely depending upon the pharmacy used. Drug companies may supply coupons for some of the products listed.

Preventative Strategies

[See Table 4. Preventative Medications to Consider for Migraine Headaches](#)

General recommendations

1. Preventative medications may be started by a provider who can see the child back within 6-8 weeks (usually the PCP or a neurologist)
2. Don't forget that changing life-style behaviors and stress management are the safest preventatives!
3. Consider starting daily preventative medications if child has more than one migraine a week with associated disability (PedMIDAS score > 10, missing school, missing sports or social activities, etc.)⁵
 - The goal of preventative treatment is to decrease headache frequency to < 4 per month, with decreased disability for a sustained period of time (typically 4-6 months)⁵
4. When choosing a preventative:
 - Consider child's age, weight, and comorbidities when starting preventative
 - Consider taking advantage of side-effect profile of medication (e.g. consider topiramate for an obese child because it causes appetite suppression and weight loss)
 - For younger children (< 8 years of age) – consider cyproheptadine or topiramate or amitriptyline
 - For older children (> 8 years of age) – consider amitriptyline or topiramate
 - If overweight or obese – consider topiramate
 - If allergies – consider cyproheptadine
 - If sleeping difficulties – consider amitriptyline
5. Titration tips
 - Refer to [Table 4](#). Preventative medications to consider for titration guidelines
 - Start low and go slow – you want to optimize effectiveness and decrease possible side effects experienced
 - During titration, one does not have to achieve “maintenance” dose if patient has improvement/resolution of headache at lower doses
 - Improvement is typically observed after several weeks rather than days of starting treatment
 - Medications should not be abandoned before 6-8 weeks unless they are causing side effects⁷
 - For most patients, the goal of preventative medicine is to reduce headache frequency to fewer than 4 headaches per month that respond to acute treatment within 1-2 hours and result in little to no disability (PedMIDAS score ≤ 10)^{5,7}
6. Discontinuation tips
 - Preventative meds should be continued at their target dose for approximately 4-6 months before discontinuing⁷
 - Tapering off meds over summer break is often the most practical endpoint
 - Preventative meds should be weaned slowly (similarly to how they were titrated up), unless side-effects are considered adverse or patient on lowest dose

Table 4. Preventative Medications to Consider for Migraine Headaches⁷

Medications	Titration	Pediatric/ adolescent Dosing	Formulations	Cost*	Side-effects
Cyproheptadine (Periactin®)	Starting Dose	0.2 mg/kg (2-4 mg qhs)	Solution: 2 mg/5mL Tablets: 4 mg	Generic \$ Brand N/A	Sedation, weight gain
	Increase by	2-4 mg q week			
	Maintenance dose	0.2-0.4 mg/kg (4-8 mg qhs)			
	Maximum dose	< 7 y/o: 12 mg/day ≥ 7 y/o: 16 mg/day			
Amitriptyline	Starting dose	0.25-0.5 mg/kg (5-10 mg qhs)	Tablets: 10 mg, 25 mg, 50 mg, 75 mg, 100 mg, 150 mg	Generic \$ Brand N/A	Constipation, dry mouth, arrhythmia, sedation. Get EKG for doses > 1 mg/kg/day (or > 40 mg/day)**
	Increase by	0.25 mg/kg (5-10 mg) q 2 weeks			
	Maintenance dose	1 mg/kg (10-75 mg qhs)			
	Maximum dose	1 mg/kg/dose up to 150 mg/day ⁵			
Topiramate (Topamax®)	Starting dose	0.5-1 mg/kg (12.5-25 mg qhs)	Sprinkles: 15 mg, 25 mg Tablets: 25 mg, 50 mg, 100 mg, 200 mg	Generic \$ Brand \$\$\$\$-\$\$\$\$\$	Weight loss, kidney stones, word finding difficulties, paresthesias, glaucoma
	Increase by	0.5-1 mg/kg (12.5-25 mg) q 2 weeks			
	Maintenance dose	2-3 mg/kg (50-150 mg qhs)			
	Maximum dose	4 mg/kg/day up to 200 mg/day ⁵			
Valproic Acid (Depakote®)	Starting dose	250 mg/day	Solution: 250 mg/5mL Tablets: 250 mg, 500 mg Sprinkles 125 mg	Generic \$ Brand \$\$\$	Dizziness, drowsiness, alopecia, weight gain, pancreatitis, thrombocytopenia, lymphopenia, hyperammonemia
	Increase by	250 mg q week			
	Maintenance dose	15-20 mg/kg ⁷			
	Maximum dose	45 mg/kg/day ⁸			
Propranolol***	Starting dose	10 mg TID	Solution: 4 mg/mL, 8 mg/mL Tablets: 10 mg, 20 mg, 40 mg, 60 mg, 80 mg	Generic \$ Brand \$\$\$-\$\$\$\$\$	Hypotension, vivid dreams, depression
	Increase by	10 mg q 3 weeks			
	Maintenance dose	1-4 mg/kg (20 to 40 mg TID)			
	Maximum dose	4 mg/kg/day up to 40 mg TID			
Verapamil (Calan®)***	Starting dose	2 mg/kg/day (20-40 mg TID)	Tablets: 40 mg, 80 mg, 120 mg	Generic \$ Brand \$\$\$	Hypotension, nausea, AV block, weight gain. Get EKG if on ≥ 240 mg**
	Increase by	1 mg/kg/day (up to 40 mg) weekly			
	Maintenance dose	5 mg/kg (40-80 mg TID)			
	Maximum dose	360 mg/day up to 120 mg TID			

* Legend: \$=\$10-50, \$\$=\$50-99, \$\$\$=100-500, \$\$\$\$= >\$500. Data obtained from www.goodrx.com was accurate as of 7/7/2017. Cost based on price per standard package (usually 30-60 tablets). Lower dose tablets are usually cheaper than higher dose tablets. Families should compare prices before having Rx filled as prices can vary widely depending upon pharmacy used. Drug companies may supply coupons for some products listed

**See Appendix A. Frequently Asked Questions, for more information on EKGs in children

*** Propranolol and verapamil: start on regular formulation for titration, and for maintenance can switch to appropriate ER formulation (i.e. 80 mg TID = 240 mg ER q day)

PROVIDER TOOLS

[Frequently Asked Questions for Providers](#)

[Headache Intake Questionnaire](#)

This tool can be given to patients for them to complete while in the waiting or exam rooms. Providers then can use this information during their visit.

[Headache Diary](#)

The headache diary is for patients to fill out to keep track of their headaches, any patterns, and frequency of headaches. The diary can be given to patients for them to complete while in the waiting or in exam rooms.

[Telephone Triage Neurology Clinic: Headaches](#)

PARENT | CAREGIVER EDUCATION

1. Instruct patients and/or parent/caregiver about measures to help prevent headaches such as¹¹:

- Fluids
- Sleep
- Nutrition
- Exercise/stretching
- Electronics overuse

Click on the links below for printable handouts to educate parents/caregivers and patients about measures to help prevent headaches:

- [Headaches in Children \(English\)](#)
- [Headaches in Children \(Spanish\)](#)
- [Headaches and Liquids \(English\)](#)
- [Headaches and Liquids \(Spanish\)](#)
- [Practicing Yoga for Chronic Headaches \(English\)](#)
- [Practicing Yoga for Chronic Headaches \(Spanish\)](#)

2. Instruct parent/caregiver and patient about keeping a [headache diary](#)

3. Instruct parent/caregiver and patient about medications, including optimal scheduling of rescue and preventative medications (if applicable), use of OTC medications, etc.

4. Manage expectations of the parent/caregiver and patient, including informing them that changes are often seen after a period of time such as weeks or months, rather than days⁵

FOLLOW-UP

When to see your patient back in your clinic:

- New onset headaches: follow-up in 2 to 4 weeks
- Children with high frequency headaches (>8 headaches per month) and new changes to treatment plan: follow-up in 4 to 6 weeks
- Children with low frequency headaches (<8 headaches per month) and new changes to treatment plan: follow-up in 8 to 12 weeks
- Children with no changes and stable: follow-up in 10 to 12 weeks, up to 1 year

When to refer to neurology:

- Abnormal neurological exam (consider calling neurology for advice on urgency of referral and obtaining MRI without contrast)
- Concern for secondary headache
- Worsening headaches
- Not responding to preventative medications

When to refer to behavioral health/mental health:

- Have low threshold as depression and anxiety are comorbid with headaches
- Anyone with frequent absences from school (emphasize need for formal stress coping/pain coping)

When to refer to concussion clinic:

- Please refer to the [Concussion Pathway](#) for additional information

APPENDIX A. FREQUENTLY ASKED QUESTIONS (FAQS) FOR PROVIDERS

Are aspirin or aspirin containing substances okay to give children for their headache?

Aspirin and aspirin containing drugs such as Excedrin are relatively safe in adolescents. There are less than 40 cases of Reyes reported per year, with 40% of cases in children less than 5 years old and over 90% of cases in children less than 15 years old. We recommend cautioning the adolescent to avoid aspirin during a varicella- or flu-like illness or with high fever. All adolescents taking aspirin should have varicella and influenza vaccinations.

What is abdominal migraine? How do you treat it?

An abdominal migraine is an idiopathic disorder seen mainly in children as recurrent attacks of moderate to severe midline abdominal pain associated with vasomotor symptoms, nausea and vomiting, lasting 2 to 72 hours and with normality between episodes. A mild headache may occur during these episodes².

Diagnostic criteria include at least five attacks within 28 days fulfilling criteria A-C:

- A. Pain has at least two of the following three characteristics:
 - Midline location, periumbilical, or poorly localized
 - Dull or “just sore” quality
 - Moderate or severe intensity
- B. During attacks, at least two of the following:
 - Anorexia
 - Nausea
 - Vomiting
 - Pallor
- C. Attacks last 2 to 72 hours when untreated or unsuccessfully treated
- D. Complete freedom from symptoms between attacks
- E. Not attributed to another disorder

A gastrointestinal disorder must be ruled out. Consider referral to gastroenterology (GI).

Abdominal migraine can be treated with cyproheptadine and amitriptyline.

What is a complicated or complex migraine?

I have a patient with this type of headache, is there something I should do differently?

Complicated or complex migraines were previously used terms to describe headaches that are associated with more than one aura type. Migraine with unilateral motor weakness or stumbling gait/ataxia are defined by the ICHD-III as “hemiplegic migraines” and “migraine with brainstem aura”, respectively. These individuals should have one MRI with MRA of the brain and MRA of the neck to evaluate for structural or vascular abnormality including dissection. They also should not be prescribed triptans or ergotamines. Strongly consider a one-time evaluation by neurology to rule out other etiologies.

Should I avoid OCPs in my patient with migraines with aura?

Adolescent women should be counseled on risks of estrogen containing OCPs and smoking and whenever possible placed on low or no estrogen containing contraceptive options. Smoking increases stroke risk further. Consider referral to Adolescent Medicine if additional guidance is needed.

What are the contraindications for a triptan and how young can you give triptans?

Contraindications include:

- Hemiplegic migraines and basilar migraines
- Uncontrolled hypertension
- Ischemic heart disease
- Prinz-Metal angina
- Cardiac arrhythmias
- Multiple risk factors for atherosclerotic vascular disease
- Primary vasculopathies

Rizatriptan (Maxalt®) is approved for children 6 years of age and older. Almotriptan (Axert®) Sumatriptan/naproxen sodium (Treximet) and zolmitriptan (Zomig®) are approved for use in children 12 years of age and older. Sumatriptan (Imitrex®) have supportive efficacy and safety data in adolescents.

When should I get an EKG?

There are no current guidelines or evidence in children and adolescents for surveillance of QT prolongation or AV block in individuals on amitriptyline or verapamil respectively. In adults there are significantly increased QT intervals on higher doses of amitriptyline. Verapamil may cause bradycardia and AV block, therefore, EKG can be done when increasing verapamil past 240 mg daily or any patient with bradycardia.

Should my patient get allergy testing?

There is no evidence for allergy testing in children with headache.

What is the evidence for nutraceuticals/vitamins and minerals? *(Quality of evidence: D)*

In children, the use of vitamins and minerals for prevention and treatment of headache is not well studied⁵. Coenzyme Q10, magnesium, and riboflavin are likely to be relatively safe; however, their efficacy is not well established. These supplements are most likely to be efficacious in menstrual migraine. Butterbur is from a toxic plant with teratogenic, carcinogenic, and hepatotoxic properties and should not be used. Feverfew in adults is safe; however, efficacy in children is unclear.

Should I get their vision tested or send them to ophthalmology for dilated eye exam?

Basic vision testing in your office should screen for common refractive errors; however, correction of these refractory errors does not significantly reduce the number of migraines or tension headaches. If patient has red flags for increased ICP or fundi are not well visualized, patient should be referred for a dilated eye exam.

I have a patient with headaches persistent after a minor or major head trauma, who should I refer them to, Neurology clinic or concussion clinic?

Patients should be referred to concussion clinic first, 720-777-1234, then if concussion clinic feels that patient would benefit from neurological consultation, they will notify neurology clinic.

APPENDIX B. HEADACHE INTAKE QUESTIONNAIRE

To be administered by provider

1. **When did your headaches start? (choose one)**
 Less than 1 month ago 1-5 months ago 6-12 months ago More than 1 year ago
2. **How many days per month do you have a headache? #** ____ headache days per month
3. **Where are your headaches usually located?**
 Forehead Temples/Side Top Back Behind eyes On one side All Over
4. **In general, are your headaches (choose one):** Worsening Staying the same Improving
5. **Your headaches mostly or usually feel like:**
 Pounding/Throbbing/Pulsating Squeezing Stabbing Pressure Dull
6. **On a scale of 0-10, on average, how severe are your headaches:** _____
7. **On average, how long do your headaches last in HOURS?** _____ hours
8. **Your headaches are worse in the** morning afternoon evening during the night
9. **Do you have any of the following symptoms *prior to* your headache?**
 Vision changes Numbness Weakness in ONE body part Other: _____
10. **During the headache, do you have any of the following symptoms?**
 Nausea Bright lights bother me Physical activity bothers me Vomiting
 Loud noises bother me Weakness in ONE body part
11. **Did your headache start after a head injury?** Yes No
12. **Did your headache start after any type of infection?** Yes No
13. **Are your headaches worse when you are lying down?** Yes No
14. **Do your headaches wake you up in the middle of the night?** Yes No If yes, how often?

15. **The following things trigger my headaches:**
 Stress Lack of sleep Physical exercise Dehydration Skipping meals
 Other: _____
16. **When you get a headache, what medication do you take to help stop it?**
 Medication _____ Dose _____ Does it help? Yes No
 Medication _____ Dose _____ Does it help? Yes No
 Medication _____ Dose _____ Does it help? Yes No
17. **How many days a month do you take a medication to stop a headache after it has started?**
 _____ days
18. **How many days in the last month did you miss school because of headaches?** _____ days
19. **How many days in the last month did you miss activities/sports because of headaches?**
 _____ days

APPENDIX C. PEDIATRIC MIGRAINE DISABILITY SCALE (PEDMIDAS)

PedMIDAS

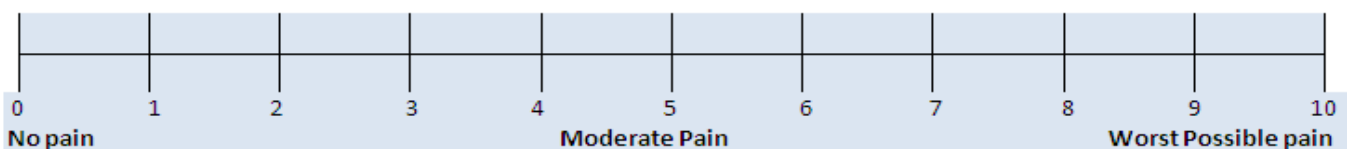
The following questions try to assess how much the headaches are affecting day-to-day activity. Your answers should be based on the last three months. There are no “right” or “wrong” answers so please put down your best guess.

- 1. **How many full school days of school were missed in the last 3 months due to headaches?** _____
 - 2. **How many partial days of school were missed in the last 3 months due to headaches (do not include full days counted in the first question)?** _____
 - 3. **How many days in the last 3 months did you function at less than half your ability in school because of a headache (do not include days counted in the first two questions)?** _____
 - 4. **How many days were you not able to do things at home (i.e., chores, homework, etc.) due to a headache?** _____
 - 5. **How many days did you not participate in other activities due to headaches (i.e., play, go out, sports, etc.)?** _____
 - 6. **How many days did you participate in these activities, but functioned at less than half your ability (do not include days counted in the 5th question)?** _____
- Total PedMIDAS Score** _____

APPENDIX D: HEADACHE DIARY

- Mark if you had a headache, how long it lasted, and how bad it was on a scale of 0-10
- Mark what treatments you tried (including sleep, relaxation, medications, etc.)

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Did you have headache?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
How long?	Hours	Hours	Hours	Hours	Hours	Hours	Hours
How bad?	/10	/10	/10	/10	/10	/10	/10
Treatment(s) tried? Was it Helpful?							
Did you have headache?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
How long?	Hours	Hours	Hours	Hours	Hours	Hours	Hours
How bad?	/10	/10	/10	/10	/10	/10	/10
Treatments tried? Was it Helpful?							
Did you have headache?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
How long?	Hours	Hours	Hours	Hours	Hours	Hours	Hours
How bad?	/10	/10	/10	/10	/10	/10	/10
Treatments tried? Was it Helpful?							
Did you have headache?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
How long?	Hours	Hours	Hours	Hours	Hours	Hours	Hours
How bad?	/10	/10	/10	/10	/10	/10	/10
Treatments tried? Was it Helpful?							
Did you have headache?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
How long?	Hours	Hours	Hours	Hours	Hours	Hours	Hours
How bad?	/10	/10	/10	/10	/10	/10	/10
Treatments tried? Was it Helpful?							



APPENDIX E. HEADACHES IN CHILDREN FAMILY TEACHING

Headaches in Children

Headaches are a common problem in children. Approximately 11% of children and 28% of adolescents experience recurrent headaches.

What causes headaches?

There are different theories about the cause of headaches. Often several family members are affected, suggesting genetic factors are partly responsible. Other possible reasons for migraine include: blood vessel sensitivity, brain and nervous system changes, and serotonin system abnormalities. Medicines used to treat headache disorders often work on these pathways.

Headache Types

Migraine Headaches

Migraine headaches are recurrent headaches that occur at intervals of days, weeks, or months. Migraines generally have some of the following symptoms and characteristics:

- They can last for 2 to 72 hours if not treated with rest, sleep, or medications
- They are often located on one or both sides of the head near the temples or eyes
- Children complain of a throbbing, pounding, or pulsating pain
- They are worse with normal daily activities or exertion such as climbing stairs, running, riding a bicycle
- Nausea, vomiting, stomach pain, difficulties with bright lights or loud sounds, or sensitivity to smells commonly occur with the migraines
- Warnings, called auras, may start before the headache. These auras can include blurry vision, flashing lights, colored spots, strange tastes, or weird sensations and usually occur 5 to 60 minutes before the onset of the headache.

Tension-Type Headaches

Tension-type headaches are recurrent headaches that generally have some of the following symptoms and characteristics:

- They can last from 30 minutes to several days
- They feel like a band tightening around the head
- Sometime muscle tightness is noticed
- Children may be sensitive to bright light or loud sounds

Chronic Headaches

- Both migraines and tension-type headaches can become chronic, meaning that they occur at least 15 days per month for greater than 3 months
- Chronic headaches can result from taking some types of medication—for example, acetaminophen (Tylenol), ibuprofen (Motrin), caffeine, and some prescription medications—almost every day. These are called **medication overuse headaches**. The most effective way to make these headaches better is to stop taking pain medicines altogether for 2 to 3 weeks. After that time, use of pain-relievers is limited to no more than 2 to 3 times per week.

Headache Treatment

What do I do if my child gets a headache?

- Follow your health care provider's instructions in using the medication and treatment plan
- Have your child take their abortive ("as needed") medication as soon as they feel pain
- If you are needing abortive medications more than 2 to 3 doses per week, contact your health care provider. Taking abortive medications every day can actually cause an increase in your child's headaches.
- Develop a headache treatment plan with your health care provider so your child can take abortive medication at school as recommended
- Drinking more fluids (especially sports drinks) during a headache may be helpful in alleviating the headache quicker

What can I do to prevent my child's headaches?

The most important things to help decrease the frequency and severity of your child's headaches include:

- **FLUIDS:** Make sure your child drinks enough fluids. Children and adolescents need 4 to 8 glasses (32-64 oz) of fluids per day. Caffeine should be avoided. Sports drinks without caffeine may also help during a headache as well as during exercise by keeping sugar and sodium levels normal.
- **SLEEP:** Make sure your child gets plenty of regular sleep at night (but does not oversleep). Fatigue and over-exertion are two factors that can trigger headaches. Most children and adolescents need to obtain 8 to 10 hours of sleep each night and keep a regular sleep schedule to help prevent headaches.
- **NUTRITION:** Be sure that your child eats balanced meals at regular hours. Do not allow child to skip meals. Try to avoid foods that seem to trigger headaches. Remember that every child is different, so your child's triggers may be different from another child. Possible food triggers include aged cheese, artificial sweeteners, caffeine, chocolate, citrus fruits, cured meats (packaged lunchmeats, sausage, pepperoni), MSG, nuts, onions, and salty foods.
- **EXERCISE/STRETCHING:** Make sure your child gets at least 45 minutes of aerobic activity that increases their heart rate and 5 to 10 minutes of stretching every day. This does not include things such as weight-lifting.
- **STRESS:** Plan and schedule your child's activities sensibly. Try to avoid overcrowded schedules or stressful and potentially upsetting situations. Consider stress management counseling or relaxation techniques if stress seems to be contributing to your child's headaches.
- **ELECTRONIC OVERUSE:** Try not to exceed 2 hours per day of TV, movies, videogames, or computer use. Turn off all electronic devices at least 1 hour before bedtime to allow time to unwind.

Worrisome symptoms that should be brought to your doctor's attention include:

- Headaches that awaken your child from sleep
- Early morning vomiting without upset stomach
- Worsening or more frequent headaches
- Personality changes
- Complaints that "this is the worst headache I've ever had!"
- The headache is different than previous headaches
- Headaches with fever or a stiff neck or headaches following an injury

Diaries

Keep a diary of your child's headaches. Write down everything that might relate to your child's headache (food, activities, or stressors), how long it lasted, and the pain rating on a 0-10 scale. There are daily, weekly, and monthly headache diaries available on the American Headache Society website: www.achenet.org.

Websites for more information on headaches

www.achenet.org
www.migraines.org
www.discoveryhealth.com

dawnbuse.com
headachereliefguide.com
anxietybc.com

References


1. Abu-Arafeh, I, Razak, S, Silvaraman, B, Graham, C. Prevalance of headache and migriane in children and adolescents: a systematic review of population-based studies. *Dev Med & Child Neuro* 2010, 52: 1088-1097.
2. The International Classification of Headache Disorders, 3rd edition (beta version). *Cephalalgia* 2013;33:629-808.
3. Lipton, RB, Manack, A, Ricci, JA, Chee, E, Turkel, CC, Winner, P. Prevalence and burden of chronic migraine in adolescents: results of the chronic daily headache in adolescents study (C-dAS). *Headache* 2011 May;51(5):693-706.
4. Bigal, ME & Lipton, RB. Concepts and mechanisms of migraine chronification. *Headache: The Journal of Head and Face Pain* 2008;48:7–15.
5. Kacperski, J, Kabbouche, MA, O'Brien, HL, Weberding, JL. *Ther Adv Neurol Disord* 2016;9(1):53–68.
6. Lewis, DW, Ashwal, S, Dahl, G, Dorbad, D, Hirtz, D; Prensky, A, Jarjour, I. Practice parameter: Evaluation of children and adolescents with recurrent headaches. Report of the Quality Standards Subcommittee of the American Academy of Neurology and the Practice Committee of the Child Neurology Society. *Neurology* 2002;59:490–498.
7. Hickman, C, Lewis, KS, Little, R, Rastogi, RG, Yonker, M. Prevention for pediatric and adolescent migraine. *Headache* 2015 Nov-Dec;55(10):1371-81.
8. Hayes, LL, Coley, BD, Karmazyn, B...& Wootton-Gorges, SL. American College of Radiology ACR Appropriateness Criteria: Headache - Child. Expert Panel on Pediatric Imaging. ACR Appropriateness Criteria® headache - child. [online publication]. Reston (VA): American College of Radiology (ACR); 2012
9. Lewis D, Ashwal S, Hershey A, Hirtz D, Yonker M, Silberstein S. Practice parameter: pharmacological treatment of migraine headache in children and adolescents: report of the American Academy of Neurology Quality Standards Subcommittee and the Practice Committee of the Child Neurology Society. *Neurology* 2004;63:2215-24.
10. Hershey AD, Kabbouche MA, Powers SW. Treatment of pediatric and adolescent migraine. *Pediatr Ann* 2010;39:416-23.
11. Lewis, D. Pediatric migraine. *Neurol Clin* 2009 May;27(2):481-501.
12. Craddock L, Ray LD. Pediatric migraine teaching for families. *J Spec Pediatr Nurs* 2012;17:98-107.
13. Classifying recommendations for clinical practice guidelines. *Pediatrics* 2004;114:874-7.

CLINICAL IMPROVEMENT TEAM MEMBERS

- Scott Turner, DNP, FNP | Child Neurology
- Angelina Koehler, MA, PNP | Child Neurology
- Marcy Yonker, MD | Child Neurology
- Amanda Foss, BSN, RN, CNRN | Headache Program Coordinator, Neurology
- Jennifer Jorgensen, PharmD | Pharmacy
- Marius Birlea, MD | Adult Neurology

APPROVED BY

Clinical Care Guideline and Measures Review Committee – November 14, 2017
Pharmacy & Therapeutics Committee – November 2, 2017

MANUAL/DEPARTMENT	Clinical Pathways/Quality
ORIGINATION DATE	November 1, 2013
LAST DATE OF REVIEW OR REVISION	November 14, 2017
APPROVED BY	 Lalit Bajaj, MD, MPH Medical Director, Clinical Effectiveness

REVIEW | REVISION SCHEDULE

Scheduled for full review on date here November 14, 2021

Clinical pathways are intended for informational purposes only. They are current at the date of publication and are reviewed on a regular basis to align with the best available evidence. Some information and links may not be available to external viewers. External viewers are encouraged to consult other available sources if needed to confirm and supplement the content presented in the clinical pathways. Clinical pathways are not intended to take the place of a physician's or other health care provider's advice, and is not intended to diagnose, treat, cure or prevent any disease or other medical condition. The information should not be used in place of a visit, call, consultation or advice of a physician or other health care provider. Furthermore, the information is provided for use solely at your own risk. CHCO accepts no liability for the content, or for the consequences of any actions taken on the basis of the information provided. The information provided to you and the actions taken thereof are provided on an "as is" basis without any warranty of any kind, express or implied, from CHCO. CHCO declares no affiliation, sponsorship, nor any partnerships with any listed organization, or its respective directors, officers, employees, agents, contractors, affiliates, and representatives.

Discrimination is Against the Law. Children's Hospital Colorado complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. Children's Hospital Colorado does not exclude people or treat them differently because of race, color, national origin, age, disability, or sex.

Children's Hospital Colorado provides free aids and services to people with disabilities to communicate effectively with us, such as: Qualified sign language interpreters, written information in other formats (large print, audio, accessible electronic formats, other formats). Children's Hospital Colorado provides free language services to people whose primary language is not English, such as: Qualified interpreters, information written in other languages.

If you need these services, contact the Medical Interpreters Department at 720.777.9800.

If you believe that Children's Hospital Colorado has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with: Corporate Compliance Officer, 13123 E 16th Avenue, B450, Aurora, Colorado 80045, Phone: 720.777.1234, Fax: 720.777.7257, corporate.compliance@childrenscolorado.org. You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Corporate Compliance Officer is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at: U.S. Department of Health and Human Services 200 Independence Avenue, SW Room 509F, HHH Building Washington, D.C. 20201 1-800-368-1019, 800-537-7697 (TDD) Complaint forms are available at www.hhs.gov/ocr/office/file/index.html.

Children's Hospital Colorado complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-720-777-9800.

CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1-720-777-9800.

주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1-720-777-9800 번으로 전화해 주십시오.

注意: 如果您使用繁體中文, 您可以免費獲得語言援助服務。請致電1-720-777-9800。

ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1-720-777-9800.

ማስታወሻ: የሚናገሩት ቋንቋ አማርኛ ከሆነ የትርጉም አርዳታ ድርጅቶች: በነጻ ሊያገዝዎት ተዘጋጅተዋል: ወደ ሚከተለው ቁጥር ደደውሉ 1-720-777-9800 (መስማት ስተሳናቸው)።

ملحوظة: إذا كنت تتحدث اذكر اللغة، فإن خدمات المساعدة اللغوية تتوفر لك بالمجان. اتصل برقم 720-777-9800-1 (رقم)

ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1-720-777-9800.

ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1-720-777-9800.

ध्यान दनु होस:तपाइले नेपाल बोलनहनछ भन तपाइको निम्त भाषा सहायता सवाहू नःशुल्क रूपमा उपलब्ध छ । फोन गनु होसरू 1-720-777-9800 ।

PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nang walang bayad. Tumawag sa 1-720-777-9800.

注意事項: 日本語を話される場合、無料の言語支援をご利用いただけます。1-720-777-9800 まで、お電話にてご連絡ください。

Nti: O buru na asu lbo, asusu aka oasụ n'efu, defu, aka. Call 1-720-777-9800.