

1 HEADACHES IN SCHOOL CHILDREN

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2 PREVALENCE OF HEADACHE IN CHILDREN

- ⊙ Age 3 3-8%
- ⊙ Age 5-7 19%
- ⊙ Age 7-15 57-82%

3 PRIMARY HEADACHE DISORDERS

- ⊙ Migraine without Aura
- ⊙ Migraine with Aura
- ⊙ Cluster Headache
- ⊙ Tension-Type Headache

4 PREVALENCE OF MIGRAINE THROUGH CHILDHOOD

5 MIGRAINE WITHOUT AURA

- ⊙ Formerly Common Migraine
- ⊙ IHS criteria—Pain characteristics (at least 2 required)
 - Unilateral pain or bilateral or frontotemporal (not occipital)
 - Throbbing/pulsating
 - Moderate to severe in intensity
 - Worsened by physical activity

6 Headache Classification Committee IHS, Cephalalgia 2004

ASSOCIATED CHARACTERISTICS

- ⊙ One required:
 - Photophobia and phonophobia (may be inferred by behavior)
 - Nausea or vomiting
- ⊙ Duration of 1-72 hours

7 ID MIGRAINE

- ⊙ PIN
 - Photophobia
 - Impairment
 - Nausea

- ⊙ Yes to 2/3 of these sx's gives an 81% probability of migraine
- ⊙ Presence of all 3 portends a 93% probability

8 NECK PAIN COMMONLY OCCURS IN MIGRAINE ATTACKS

9 SINUS SYMPTOMS

- ⊙ Migraine activation of the TNC can lead to cranial PSNS activation thus causing:
 - Rhinorrhea
 - Congestion
 - Lacrimation

10 SINUS HEADACHE

- ⊙ NOT a primary headache disorder
- ⊙ Secondary diagnosis arising from acute bacterial sinusitis
- ⊙ Associated with the symptoms of:
 - Purulent nasal drainage
 - Facial pain
 - Congestion

11 TENSION TYPE HEADACHE

- ⊙ Bilateral location
- ⊙ Pressure, tightening character (nonpulsating)
- ⊙ Mild to moderate pain
- ⊙ May inhibit but not prohibit activity

12 TENSION TYPE HEADACHE

- ⊙ Not aggravated by routine physical activity
- ⊙ No nausea nor vomiting
- ⊙ Minimal light or sound sensitivity (not both)
- ⊙ Lasts 30 minutes to 7 days

13 TENSION TYPE HEADACHE

- ⊙ Episodic type occurs less than 15 days per month
- ⊙ May be triggered by insomnia, stress, fatigue, fever, hunger, odors, an

- ⊙ NOT caused by:
 - Emotional stress
 - Muscle tension
 - Muscle contraction

14 RED FLAGS-OMINOUS SIGNS

- ⊙ First or worse headache—unusual severity
- ⊙ Sudden or rapid escalation within minutes
- ⊙ Mental status changes
- ⊙ Onset during exercise
- ⊙ Posterior radiation below the neck
- ⊙ Stiff neck
- ⊙ Onset after 50 y/o or less than 5 y/o
- ⊙ Abnormal neurological examination

15 RED FLAGS

- ⊙ Associated constitutional symptoms
 - Fever
 - Weight loss
 - Recent infection
- ⊙ Change in character or frequency of existing headache
- ⊙ Refractory to two different therapies

16 PEDIATRIC RED FLAGS

- ⊙ Head trauma
- ⊙ Toxic exposure
- ⊙ Presence of a shunt
- ⊙ Café au lait spots, petechiae, hypopigmentation

17 GOALS OF ACUTE HEADACHE THERAPY

- ⊙ Relieve pain quickly and completely
- ⊙ Relieve associated symptoms
- ⊙ Return to normal functioning

18 GOALS OF ACUTE HEADACHE THERAPY

- ⊙ Reduce socioeconomic costs
- ⊙ Improve quality of life
- ⊙ Prevent recurrence

**JAL/WORK/SCHOOL IMPACT
J/VER 3 MONTHS)**

- ⊙ 25.3% Missed one day of work/school
- ⊙ 28.1% Work/school productivity <50%
- Average of 3 days lost work day equivalents
- ⊙ 29.1% Missed family/social activity
- ⊙ 47.7% Did no housework
- ⊙

Lipton RB, Neurology 2007

**ANALGESIC USE LIMIT
(PALM BEACH HEADACHE CENTER)**

- ⊙ No more than 10 tablets of analgesic per month for a young child
- ⊙ No more than 20 tablets per month for an adolescent
- ⊙ No more than 2 headaches treated with these parameters per week
- ⊙

⊙ Headache in Children and Adolescents 2nd Ed, Winner et al. 2008

**ORAL NSAIDS (ADULT)
GROUP 2 US HEADACHE CONSORTIUM 2000**

- Fenoprofen (Nalfon) 600 mg TID prn
- Flurbiprofen (Ansaid) 100 mg BID prn
- Ketoprofen (Orudis) 75 mg TID prn
- Mefenamic acid (Ponstel) 250 mg QID prn
- Naproxen 500 mg BID
- Naproxen Sodium 550 mg BI
- Diclofenac 50 mg oral suspension (Cambia)

THE TRIPTANS (ADULT)

- ⊙ Sumatriptan—Imitrex
- ⊙ Naratriptan—Amerge
- ⊙ Zomatriptan—Zomig
- ⊙ Rizatriptan—Maxalt
- ⊙ Almotriptan—Axert
- ⊙
- ⊙ Frovatriptan—Frova
- ⊙ Eletriptan--Relpax
- ⊙

SIDE EFFECTS

- ⊙ Tingling
- ⊙ Warmth
- ⊙ Chest heaviness
- ⊙ Dizziness
- ⊙ Flushing

- ⊙ Neck and throat tightening
- ⊙ Somnolence
- ⊙

SIDE EFFECTS

- ⊙ Fatigue
- ⊙ Dry mouth
- ⊙ Nausea
- ⊙

MEDICATION OVERUSE HEADACHE

- ⊙ Diffuse bilateral daily headache
- ⊙ Aggravated by mild exertion
- ⊙ Onset with awakening or in the early morning
- ⊙ No response to preventive therapy
- ⊙ Tolerance to acute abortive medications

HEADACHE TRIGGERS

OTHER THERAPIES

- ⊙ Biofeedback
- ⊙ Cognitive behavior therapy
- ⊙ Meditation & relaxation
- ⊙
- ⊙ Visualization
- ⊙ Yoga
- ⊙ Exercise
- ⊙ Therapeutic blocks
- ⊙ Massage
- ⊙ Acupuncture
- ⊙