

## ***There are medicines that make headaches worse!***

Medications that **cause** headache include:

- Oral contraceptives
- Hormone therapy (prednisone, synthroid, anabolic steroids)
- Caffeine, ethanol, cocaine
- Non-sedating antihistamines and decongestants
- Blood pressure medicines (ACE inhibitors, alpha blockers)
- Overuse of fat-soluble vitamins, such as vitamin A
- Asthma medicines (bronchodilators/beta-agonists)
- Antidepressant medicines (Selective serotonin-reuptake inhibitors)
- Antibiotics (tetracycline/doxycycline, amoxicillin)

## ***Overuse of pain medicine***

Using too much over-the-counter (OTC) pain medicine can actually make a headache worse. Overuse is defined as more than 5 doses per week, which could aggravate the headache pattern, a condition called “*analgesic overuse headache*.”

The medications implicated in analgesic overuse headache are:

- OTC analgesics (acetaminophen, aspirin, ibuprofen, Excedrin)
- opioids
- butalbital (Fiorinal)
- isometheptene
- benzodiazepines (ativan, diazepam)
- ergotamine (DHE)
- triptans

## ***Complementary or alternative treatments***

In addition to the psychological measures discussed, complementary and alternative measures to consider include the following:

**Vitamins** - Riboflavin ~ 400 mg per day

**Minerals** - Magnesium~ 400 mg per day

**Herbs** - Butterbur

**Co-enzyme Q-10**

**Acupuncture**

**Chiropractic manipulation**

## ***Will headaches get better?***

It is important to **be patient** when the treatment plan is started. The headaches will NOT go away overnight; it takes time for the whole healing process to work.

Research done at CHKD has shown the following. Headache frequency at 8-week follow-up visit after treatment is started:

- 77% had  $\geq 75\%$  reduction in headache frequency.
- 56% had  $\geq 90\%$  reduction in headache frequency.
- 33% had 100% reduction in headaches.

## ***Notes:***

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# Chronic Daily Headache



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## ***Chronic Daily Headache***

Chronic daily headache (CDH) is a pattern of persistent, unremitting, daily, or near daily, head pain.

CDH is defined as more than four months during which the patient has more than 15 headaches per month and the headaches last more than four hours per day.

Most teenagers with CDH have headache nearly every day. The majority of adolescents with CDH have chronic migraine headache, chronic tension-type headache, or a mixture of the two.

There doesn't have to be anything "wrong" with the brain, like a brain tumor, for someone to develop a pattern of chronic daily headache.

## ***How common is chronic daily headache?***

About 1-2 out of every 100 adolescents have CDH. CDH is a very common referral to the pediatric neurology clinic at Children's Hospital of The King's Daughters.

## ***Five types of CDH***

- chronic migraine (CM)
- chronic tension-type headache (CTTH)
- mixed tension-type with superimposed migraine (the most common)
- new daily persistent headache (NDPH)
- hemicrania continua (HC)

Chronic migraine is usually a frontal, pounding/throbbing headache with occasional nausea and is often associated with sensitivity to both bright light and loud sounds.

Chronic tension-type headache is generally a constant squeezing pain but does not have any nausea or vomiting.

***Many teens with CDH will have a daily tension-type headache, and on top of that pain, they'll have migraine attacks 3-4 times a week (mixed pattern).***

New daily persistent headache is one that starts quite abruptly but persists for weeks or months.

Hemicrania continua is a daily or continuous pain around one eye with a red and tearing eye, runny nose, and occasionally drooping eyelids. One of the key features of hemicrania continua is responsiveness to a medicine known as indomethacin.

## ***The impact of CDH***

The quality of life for teens with CDH can be severely impaired, and the negative impact extends to their family and friends and to society.

The disability that results from CDH can be measured in school absences and missed after-school activities.

Therefore, early diagnosis of frequent headaches or CDH, along with effective management, is essential.

## ***To help patients with CDH***

Breaking the cycle of daily headaches is the principal goal.

It is essential to begin a treatment program that incorporates several components with emphasis upon preventive strategies rather than using intermittent pain medicines.

This is a different approach and treatment philosophy for many families who have focused on primarily intermittent pain medicines, medicines that could be making the problem worse.

Successful treatment requires:

- Lifestyle modifications
- Behavioral therapies including psychological interventions
- Cautious use of medications

Medications alone are **not** successful; there is no single pill which "fixes" CDH.

## ***Lifestyle changes***

Lifestyle changes include six major components:

- Return to the normal routine of adolescent life (home-bound schooling is **not** the answer).
- Ensure adequate and regular sleep (7-9 hours per night). No more than 10 hours of sleep.
- Get regular exercise (30 minutes a day of aerobic or vigorous exercise).
- Maintain balanced nutrition and avoid skipping meals (no skipping breakfast).
- Maintain adequate oral hydration (5 extra glasses of water a day) and avoid caffeine.
- Identify factors that may be triggers (stress, foods, diet, drugs, inactivity).

## ***Behavioral therapies***

- Stress management
- Time management
- Relaxation therapy
- Biofeedback (thermal, EEG, EKG)

## ***Medicines used to break the cycle of CDH***

The medical treatment of CDH requires an individually tailored plan with the careful use of preventative medicines and periodic pain medications used at the appropriate times.

Preventive therapies used for CDH include:

- Tricyclic antidepressants (amitriptyline)
- Antiepileptic agents (topiramate, divalproex sodium, gabapentin)
- Beta-blockers (propranolol)
- Calcium channel blockers
- Non-steroidal anti-inflammatory drugs (NSAID)

**Analgesic (pain) medicines** must be used at the appropriate time, such as right when a migraine starts.

Some of the frequently used medicines include:

- Naproxen
- Triptans:
  - Almotriptan
  - Rizatriptan
  - Sumatriptan
  - Zolmitriptan

***Rule of Thumb***  
**Hit the headache hard when it starts to spike in pain!**

***CDH is one of the most difficult types of headache to treat, but it can be treated!***