

## New Daily Persistent Headache

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### New Daily Persistent Headache — The Basics

In the last several years, New Daily Persistent Headache (NDPH) has been recognized as a distinct primary headache syndrome. Primary headache disorders are those for which there is no underlying secondary cause that can be identified.

As with Migraine disease and some other headache disorders, there are several secondary conditions that can mimic NDPH, so they must be ruled out before a diagnosis of NDPH can be confirmed. Two conditions in particular that must be ruled out are spontaneous cerebrospinal fluid (CSF) leak and cerebral venous sinus thrombosis. Headache from a spontaneous CSF leak is usually affected by body position, but the longer it continues, the less apparent that becomes. Therefore, patients may not think to mention that their headache was, at one point, affected by body position, and that maybe missed.

#### What is new daily persistent headache?

The best way to define NDPH is to excerpt that section of the International Headache Society's International Classification of Headache Disorders:

#### 4.8 New daily-persistent headache (NDPH)

**Previously used terms:** De novo chronic headache; chronic headache with acute onset

#### Diagnostic criteria:

1. Headache for more than 3 months fulfilling criteria B–D
2. Headache is daily and unremitting from onset or from less than 3 days from onset
3. At least two of the following pain characteristics:
  1. bilateral location
  2. pressing/tightening (non-pulsating) quality
  3. mild or moderate intensity
  4. not aggravated by routine physical activity such as walking or climbing stairs
4. Both of the following:
  1. no more than one of photophobia (increased sensitivity to sound), phonophobia (increased sensitivity to light), or mild nausea
  2. neither moderate or severe nausea nor vomiting
5. Not attributed to another disorder

#### Notes:

1. Headache may be unremitting from the moment of onset or very rapidly build up to continuous and unremitting pain. Such onset or rapid development must be clearly recalled and unambiguously described by the patient.

2. History and physical and neurological examinations do not suggest any of the disorders listed in groups 5–12 (including 8.2 Medication-overuse headache and its subforms), or history and/or physical and/or neurological examinations do suggest such disorder but it is ruled out by appropriate investigations, or such disorder is present but headache does not occur for the first time in close temporal relation to the disorder.

In 2002, Li and Rozen conducted the largest study of NDPH to date based on 56 patients from the Jefferson Headache Center in Philadelphia. Some interesting points from the study included:

- 82% of patients were able to pinpoint the exact day their headache started.
- In 30% of the patients, the onset of the headache occurred in correlation with an infection or flu-like illness.
- 38% of the patients had a prior personal history of headache.
- 29% of the patients had a family history of headache.
- Accompanying symptoms:
  - 68% reported nausea.
  - 66% reported photophobia.
  - 61% reported phonophobia.
  - 55% reported lightheadedness.
  - Imaging and laboratory testing was unremarkable except for an unusually high number of patients who tested positive for a past Epstein-Barr virus infection.

### **How is NDPH diagnosed?**

As mentioned above, other conditions must be ruled out before arriving at a diagnosis of NDPH. Goadsby et al recommend that evaluation of an NDPH patient should include MRI with and without enhancement and MRA (Magnetic Resonance Angiography). These are done to rule out other conditions such as the spontaneous cerebrospinal fluid (CSF) leak and cerebral venous sinus thrombosis discussed earlier. If these tests are negative, Goadsby et al recommend considering a lumbar puncture (spinal tap) to rule out infection as well as conditions related to CSF pressure such as idiopathic intracranial hypertension (aka pseudotumor cerebri), which can also mimic NDPH.

### **What is the treatment for NDPH?**

Many doctors consider NDPH to be the most treatment refractory (not responsive to treatment) of headache disorders. Unfortunately, NDPH can be very disabling because it often does not respond to preventive or abortive medications. Some cases have shown successful preventive treatment with Neurontin (gabapentin) and Topamax (topiramate). Otherwise, since no successful treatment regimens have been devised specifically for NDPH, most specialists work with the same medications prescribed for chronic Migraine.

### **Summary:**

New daily persistent headache is now classified as a primary headache disorder. As you look at the symptoms, you'll find that some of them are characteristic of tension-type headache; others are more characteristic of Migraine disease. NDPH is unique, however, in that many patients can tell you the exact date when their headache began. It is characterized by continuous daily head pain, varying in intensity, and sometimes accompanied by some Migrainous symptoms. It's important that NDPH be diagnosed carefully and correctly after ruling out other conditions that can present the same symptoms.