EUROPEAN HEADACHE SCHOOL
Belgrade, Serbia, May 2012.

Classification and clinical picture of TTH

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People at risk

- Prevalence peaks at age 40-49 in both sexes
- Mean life time prevalence is 46%
- Chronic tension type headache affects 3% of general population
- Female to male ratio is 4:5
- Prevalence increases with educational level
- Can occur in children

Crystal SC, et al. Epidemiology of tension-type headache. Current Pain and Headache Report. 2010;14:419
Monteith TS. Tension type headache in adolescence and childhood Current Pain and Headache Report. 2010;14:424

Causes

- Uncertain
- ? Activation of hyper excitable peripheral afferent neurons from head and neck muscles
- Associated with and aggravated by muscle tenderness and psychological tension but do not cause it
- Abnormalities in central pain processing and generalised increased pain sensitivity are found in some individuals
- Genetic factors

Triggers

It's likely other factors also contribute to the development of tension headaches. Potential triggers may include:

- **Stress**
- **Depression and anxiety**
- **Poor posture**
- **Working in awkward positions or holding one position for a long time**
- **Jaw clenching**

Tension-Type Headache: Signs and Symptoms

- **The headache is usually described as mild to moderately intense. The severity of the pain varies from one person to another, and from one headache to another in the same person.**
- **Tension headaches can sometimes be difficult to distinguish from migraines, but unlike some forms of migraine, tension headache usually isn't associated with visual disturbances (blind spots or flashing lights), nausea, vomiting, abdominal pain, weakness or numbness on one side of the body, or slurred speech.**
- **And, while physical activity typically aggravates migraine pain, it doesn't make tension headache pain worse. An increased sensitivity to light or sound can occur with a tension headache, but these aren't common symptoms.**

Presentation

- Mild to moderate dull, aching bilateral head pain
- The sensation of tightness or pressure across forehead or on the sides and back of the head
- Tenderness or pressure on scalp, neck and shoulder muscles
- Occasionally, loss of appetite
- Lasts hours to days
- Not associated with constitutional or neurological symptoms
- People with chronic tension headache more likely to seek help often have a history of episodic headache but delayed until frequency and disability are high

2. Tension-type headache: Classification

2.1 Infrequent episodic tension-type headache

2.2 Frequent episodic tension-type headache

2.3 Chronic tension-type headache

2.4 Probable tension-type headache

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

Infrequent/frequent episodic TTH

Why this subdivision?

- Infrequent TTH has very little impact on the individual and does not deserve much attention from the medical profession
- Frequent TTH sufferers can encounter considerable disability that sometimes warrants expensive drugs and prophylactic medication

2.1 Infrequent episodic TTH

Description:

Infrequent episodes of headache lasting minutes to days. The pain is typically bilateral, pressing or tightening in quality and of mild to moderate intensity, and it does not worsen with routine physical activity. There is no nausea but photophobia or phonophobia may be present.

A. At least 10 episodes occurring on <1 day per month (<12 d/y) and fulfilling criteria B-D

B. Headache lasting from 30 min to 7 d

C. Headache has ≥2 of the following characteristics:

1. bilateral location
2. pressing/tightening (non-pulsating) quality
3. mild or moderate intensity
4. not aggravated by routine physical activity

D. Both of the following:

1. no nausea or vomiting (anorexia may occur)
2. no more than one of photophobia or phonophobia

E. Not attributed to another disorder

- Note: History and physical and neurological examinations do not suggest any of the disorders listed in groups 5-12, 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.

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

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2.1 Infrequent episodic TTH

2.1.1 Infrequent episodic tension-type headache associated with pericranial tenderness

A. Episodes fulfilling criteria A-E for 2.1 *Infrequent episodic tension-type headache*

B. Increased pericranial tenderness on manual palpation

2.1.2 Infrequent episodic tension-type headache not associated with pericranial tenderness

A. Episodes fulfilling criteria A-E for 2.1 *Infrequent episodic tension-type headache*

B. No increased pericranial tenderness

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2.2 Frequent episodic TTH

Diagnostic criteria:

A. At least 10 episodes occurring on ≥1 but <15 days per month for at least 3 months (≥12 and <180 days per year) and fulfilling criteria B-D
B. Headache lasting from 30 minutes to 7 days
C. Headache has at least two of the following 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
D. Both of the following:
   1. no nausea or vomiting (anorexia may occur)
   2. no more than one of photophobia or phonophobia
E. Not attributed to another disorder

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2.2 Frequent episodic TTH

2.2.1 Frequent episodic tension-type headache associated with pericranial tenderness

A. Episodes fulfilling criteria A-E for 2.2 *Frequent episodic tension-type headache*
B. Increased pericranial tenderness on manual palpation

2.2.2 Frequent episodic tension-type headache not associated with pericranial tenderness

A. Episodes fulfilling criteria A-E for 2.2 *Frequent episodic tension-type headache*
B. No increased pericranial tenderness

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

2.3 Chronic TTH

A. Headache occurring on ≥15 d/mo (≥180 d/y) for >3 mo and fulfilling criteria B-D

B. Headache lasts hours or may be continuous

C. Headache has ≥2 of the following characteristics:

1. bilateral location
2. pressing/tightening (non-pulsating) quality
3. mild or moderate intensity
4. not aggravated by routine physical activity

D. Both of the following:

1. not >1 of photophobia, phonophobia, mild nausea
2. neither moderate or severe nausea nor vomiting

E. Not attributed to another disorder

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

2.3 Chronic TTH

2.3.1 Chronic tension-type headache associated with pericranial tenderness

A. Headache fulfilling criteria A-E for 2.3 *Chronic tension-type headache*
B. Increased pericranial tenderness on manual palpation

2.3.2 Chronic tension-type headache not associated with pericranial tenderness

A. Episodes fulfilling criteria A-E for 2.3 *Chronic tension-type headache*
B. No increased pericranial tenderness

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

2.4 Probable TTH

2.4.1 Probable infrequent episodic TTH

A. Episodes fulfilling all but one of criteria A-D for
   2.1 *Infrequent episodic tension-type headache*
B. Episodes do not fulfil criteria for
   1.1 *Migraine without aura*
C. Not attributed to another disorder

2.4.2 Probable frequent episodic TTH

A. Episodes fulfilling all but one of criteria A-D for
   2.2 *Frequent episodic tension-type headache*
B. Episodes do not fulfil criteria for
   1.1 *Migraine without aura*
C. Not attributed to another disorder

The International Classification of Headache Disorders: 2nd edition. Cephalalgia 2004, 24 Suppl 1:9-160.

2.4.3 Probable chronic TTH

A. Headache occurring on ≥15 d/mo (≥180 d/y) for >3 mo and fulfilling criteria B-D

B. Headache lasts hours or may be continuous

C. Headache has ≥2 of the following characteristics:
1. bilateral location
2. pressing/tightening (non-pulsating) quality
3. mild or moderate intensity
4. not aggravated by routine physical activity

D. Both of the following:
1. not >1 of photophobia, phonophobia, mild nausea
2. neither moderate or severe nausea nor vomiting

E. Not attributed to another disorder but there is, or has been within the last 2 moths, medication overuse fulfilling criterion B for any of the sub forms of
8.2 Medication-overuse headache

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Differential diagnosis

- Migraine – in chronic form characteristic features disappear and pain is less severe
- Neck problems – muscle tenderness of tension type headache may involve the neck
- Medication overuse headache – consider in patients taking opioid or combination analgesics for an average of 10 days/month

Red Flags !

- Headaches that awaken the patients from sleep
- Headaches with particularly sudden and explosive character
- New onsent headache in patients>50 yrs.
- Headaches associated with focal neurologic defficits, papilledema or seazures
- Any singnificant change in headache pattern:
  - Increased intensity
  - Increased frequency
  - Change in quality
- Headaches that worsen with the Valsalva maneuver or changes in posture
- Headaches in the context of recent trauma or cervical manipulation
- Headaches occurring in immunocompromised patients (e.g. HIV; Cancer)
- Meningeal sings or symptoms
- Symptoms of increased ICP, nausea, vomiting, blurry vision, decreased sensorium
- Headaches that are particularly worse in the morning or with prolonged recumbency
- Any mental status changes
- Headaches with sudden onsent during sexual activities or exertion (although benign varietes exist for both)

Examination and investigation

- Examination
  - Neurological examination
  - Manual palpation of pericranial muscles: frontal, temporal, masseter, pterygoid, sternomastoid, splenius and trapezius
  - Fundoscopy for papilloedema
- Investigations
  - If neuro examination normal none needed

Investigation

- Neuroimaging should be arranged if:
  - Atypical pattern of headache
  - History of seizures
  - Neurological signs or symptoms
  - Symptomatic illness – acquired immunodeficiency syndrome, tumours or neurofibromatosis

Prognosis

- 45% of adults with frequent or chronic tension type headache will go into remission
- 39% will carry on with frequent headaches
- 16% will carry on with chronic headache

Crystal SC, et al. Epidemiology of tension-type headache. Current Pain and Headache Report. 2010;14:449

Poor prognosis

- Associated with
  - Presence of chronic headache at baseline
  - Co-existing migraine
  - Not being married
  - Sleep problems

Good prognos

- Associated with
  - Older age
  - Absence of chronic tension type headache at baseline
- Important message intervene early before headaches become chronic