

PHC

432 Team

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Headache



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Objectives

- 1. Definition and epidemiology**
- 2. Common types of headache “Migraine, Tension headache, Cluster headache”**
- 3. How to approach a patient with headache**
- 4. Red Flags and indications for further investigations like CT brain, MRI**
- 5. Brief comment on Migraine, Tension Headache, Cluster headache, benign intracranial tension, temporal arteritis, space occupying headaches.**
- 6. What is the role of primary health care physician in management “Drug treatment and Prophylaxis”**
- 7. What investigations could be requested if needed**
- 8. When to refer to specialist**

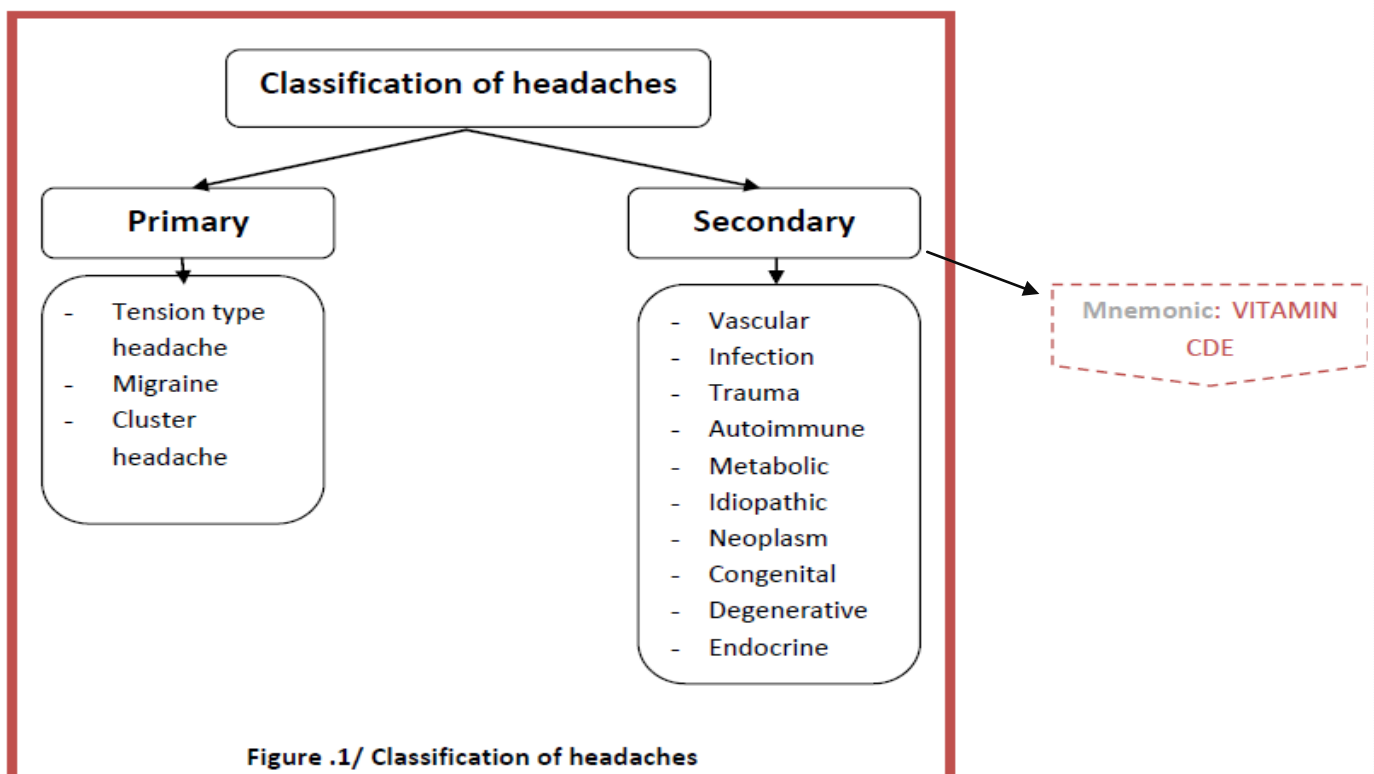
Headache

Pain anywhere in the region of the **head or neck**. It can be a symptom of a number of different conditions of the head and neck, or may be a disorder in and of itself.

Epidemiology

1. Globally, it has been estimated that prevalence **among adults** of current headache disorder is **47%**. (WHO)
2. Half to three quarters of the adults aged **18-65 years** in the world have had headache **in the last year** and among those individuals, **more than 10% have reported migraine**.
3. Despite regional variations, headache disorders are a worldwide problem, affecting people of all ages, races, income levels and geographical areas.
4. Saudi Arabia: Al Jumah M (2013) found that among 2,421 respondents, the prevalence of all headaches was 63%, of migraine 32%, of tension type headache 27% and of medication-overuse headache 2.7%.

Classification:



Primary Headaches:

1. Tension-type headache (TTH): (There is no aura in TTH)

- a. It is the **most common type of headaches** among adults and adolescents
- b. Causing **mild to moderate** pain and come and go over a prolonged period of time.
- c. The most **intense pressure at the temples or over the eyebrows.**
- d. The pain occurs **sporadically** (infrequently and without a pattern) but can occur frequently and even daily in some people.
- e. The pain allows most people to function normally.
- f. **Unknown cause**; could be caused by skull muscles contractions.
- g. Related to **stress**, depression, anxiety, head injury, or holding your head and neck in an abnormal position.

Management

1. Aspirin, paracetamol or NSAIDs.
2. If recurrent, amitriptyline and acupuncture are used for prophylaxis.
3. In chronic headache, consider relaxation training.

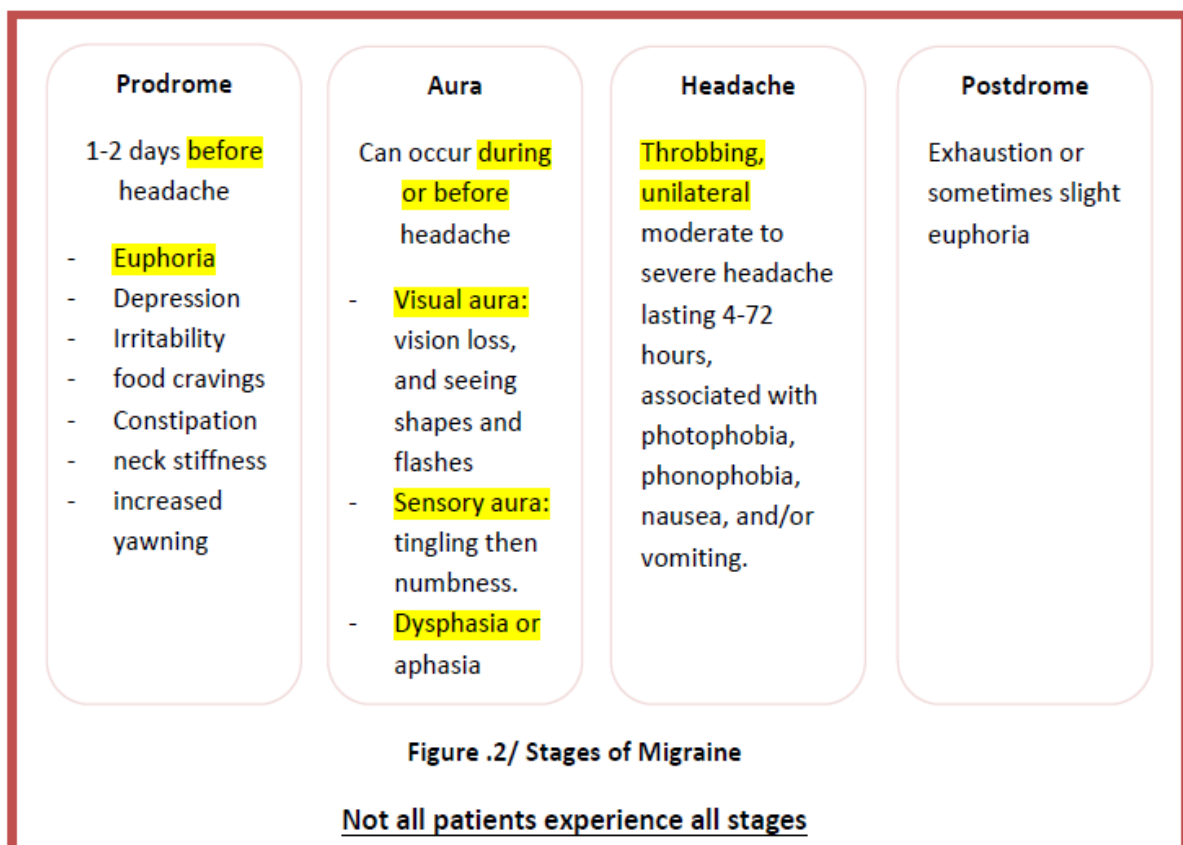
Table .1/ Diagnosis of tension-type headache :

	Tension Type Headache	
Pain location	Bilateral	
Pain quality	Pressing/Tightening (not pulsating)	
Pain Intensity	Mild to moderate	
Effect on activities	Not aggravated by daily activities	
Other symptoms or signs	None	
Duration of headache	30 minutes - continuous	
Frequency of headache	<15 days per month	> 15 days per month
Diagnosis	Episodic tension- type headache	Chronic tension-type headache

2. Migraine

The exact cause of migraine is **not known**, but there are some triggers like: **Stress, Menstruation, Visual stimuli, weather changes, Nitrates, Fasting, Alcohol, sleep disturbances, and aspartame.**

A. Presentation of migraine



B. Risk Factors:

- Family history:** Up to 90 percent of people with migraines have a family history.
- Age:** can begin at **any age**, but most people experience their first migraine during adolescence.
- Sex:** **Women are three times** more likely to have migraines.
- Hormonal changes:** before or after menstrual cycle.

C. Diagnosis

Table .2/ Diagnosis of Migraine :

	Migraine	
Pain location	Unilateral or bilateral	
Pain quality	Pulsating	
Pain Intensity	Moderate to severe	
Effect on activities	Aggravated by, or causes avoidance of daily activities	
Other symptoms or signs	Photophobia, phonophobia, nausea, and/or vomiting.	
Aura		
Duration of headache	4-72 hours in adults 1-72 hours in people aged 12-17	
Frequency of headache	<15 days per month	> 15 days per month for more than 3 months
Diagnosis	Episodic migraine (with or without aura)	Chronic migraine (with or without aura)

D. Management:

a. Acute management:

1. Oral **triptan** (serotonin receptor agonist)
2. NSAIDs
3. Paracetamol
4. Combination of triptans with NSAIDs or paracetamol
5. **Nasal triptan** (in young)
6. Antiemetic (even in the absence of nausea/vomiting)

b. Prophylaxis:

1. **B-blockers** (propranolol)
2. **Anticonvulsants** (topiramate)
3. Others (Ca-channel blockers, valproate, antidepressants, gabapentin, and others)

Topiramate is teratogenic and reduce contraception effectiveness.

3. Cluster headache: (Cluster headache is rare, unlike TTH and migraine)

- a) Cluster headaches are so named because they tend to **occur daily for periods of a week or more with long periods of time**, months to years, with **no headache symptoms**. They occur at the same time of day, often waking the patient in the middle of the night.
- b) The cause is **unknown**, but it tends to run in families, so there is a role of genetics, it is triggered by sleep disturbance, and some medications (nitroglycerine).

Table .3/ Diagnosis of cluster headache :

	Migraine	
Pain location	Unilateral (around the eye)	
Pain quality	Variable (can be sharp, burning, dull, throbbing, or tightening)	
Pain Intensity	Severe to very severe	
Effect on activities	Causes restlessness and agitation	
Other symptoms or signs	Ipsilateral red watery eye, nasal congestion, swollen eyelid, sweating, miosis, and ptosis.	
Duration of headache	15-180 minutes	
Frequency of headache	1 every other day to 8 per day, with remission >1 month	1 every other day to 8 per day, with continuous remission < 1 month in a 12 months period
Diagnosis	Episodic cluster headache	Chronic cluster headache

Management:

1. **Acute treatment:** Oxygen and/or a subcutaneous or nasal triptan.
2. **Prophylaxis:** Verapamil (Ca-Channel blocker).

Examples of Secondary Headaches:

1. Idiopathic intracranial hypertension:

- a. Increased intracranial pressure in the absence of a tumor or other diseases.
- b. Most cases occur in young women who are obese. Patients with higher BMIs and recent weight gain are at increased risk.

c. Symptoms

- i. Diffuse headache, worse in the morning.
- ii. Aggravating by coughing and sneezing.
- iii. Horizontal diplopia
- iv. Pulsatile tinnitus

d. Management

1. Lumbar puncture
2. Patients without visual loss: carbonic anhydrase inhibitor (eg, acetazolamide).
3. Patients with severe symptoms, early visual field loss high-dose corticosteroids.
4. diuretics
5. If the medication is not useful refer to neurosurgeon.

2. Temporal arteritis (Giant cell arteritis)

A. It's a form of vasculitis that affects medium and large arteries especially external carotid artery and its branches.

B. Risk Factors

1. Age: >50
2. Sex: Women
3. Polymyalgia rheumatic

C. Symptoms

1. Sudden onset headache, localized to the temporal region.
2. Tenderness and sensitivity on the scalp.
3. Jaw claudication
4. Unilateral visual loss or occasionally diplopia.
5. Constitutional symptoms.

D. Investigations: arterial biopsy and ESR.

E. Management: high dose corticosteroids as soon as possible to prevent blindness. Refer to ophthalmologist and rheumatologist.

F. Diagnosis: (at least 3 out of 5 criteria must be present Box.2):

Box .2

Criteria for diagnosing temporal arteritis
<ul style="list-style-type: none">• Age of onset >50• New-onset headache or localized head pain• Temporal artery tenderness to palpation or reduced pulsation• ESR > 50 mm/h• Abnormal arterial biopsy

3.Space occupying lesions:

a. Usually due to malignancy but it can be caused by other pathology such as an abscess, cysts and hematoma.

b. Headache tends to be quite a late feature, and it is usually very severe, waking patients from sleep.

c. Presentation:

1. Papilledema.
2. Vomiting.
3. Focal neurological symptoms, or non-focal neurological symptoms.

d. Investigations: CRP, ESR and brain CT or MRI.

e. Management: (refer to specialist)

Lumbar puncture is contraindicated when suspecting space occupying lesion

❖ Red Flags and indications for further investigations like CT brain, MRI in Headache :



Needs a referral

Red flags (SNOOP)
<ol style="list-style-type: none">2. Systemic symptoms (weight loss, fever) or Secondary risk factor (HIV infection or Cancer)3. Neurological symptoms4. Onset (abrupt)5. Older age of onset6. Previous history of headache (if first headache or different from usual headache in terms of severity, frequency and feature)

CT or MRI should be done in patients with any of the following findings:

- Severe, sudden-onset headache (thunderclap headache)
- Altered mental status
- Meningism
- Papilledema
- Signs of sepsis (rash, shock)
- Acute focal neurologic deficit
- Severe hypertension (systolic blood pressure > 220 mm Hg or diastolic pressure > 120 mm Hg on consecutive readings).

Thunderclap headache suggest subarachnoid hemorrhage

How to approach patients with headache:

1. History:

- a. History of headache (analyzing pain)
- b. Previous or recurrent headaches, the previous diagnosis (if any) and whether the current headache is similar or different.
- c. For recurrent headaches, age at onset, frequency of episodes, temporal pattern and response to treatments.
- d. Assess risk factors for headache, including exposure to drugs, substances (particularly caffeine), and toxins.
- e. Review of systems should seek symptoms suggesting a cause.
- f. Past medical history

2. Physical examination:

- a. Vital signs.
- b. General appearance.
- c. General examination, with a focus on the head and neck, Palpate (skull base, TMJs, temporal arteries, upper cervical facets, pericranial muscles, paranasal sinuses).
- d. Full neurological examination.

3. Investigation:

Most patients with headache are diagnosed without investigations. However, when suspecting serious causes we consider further investigations

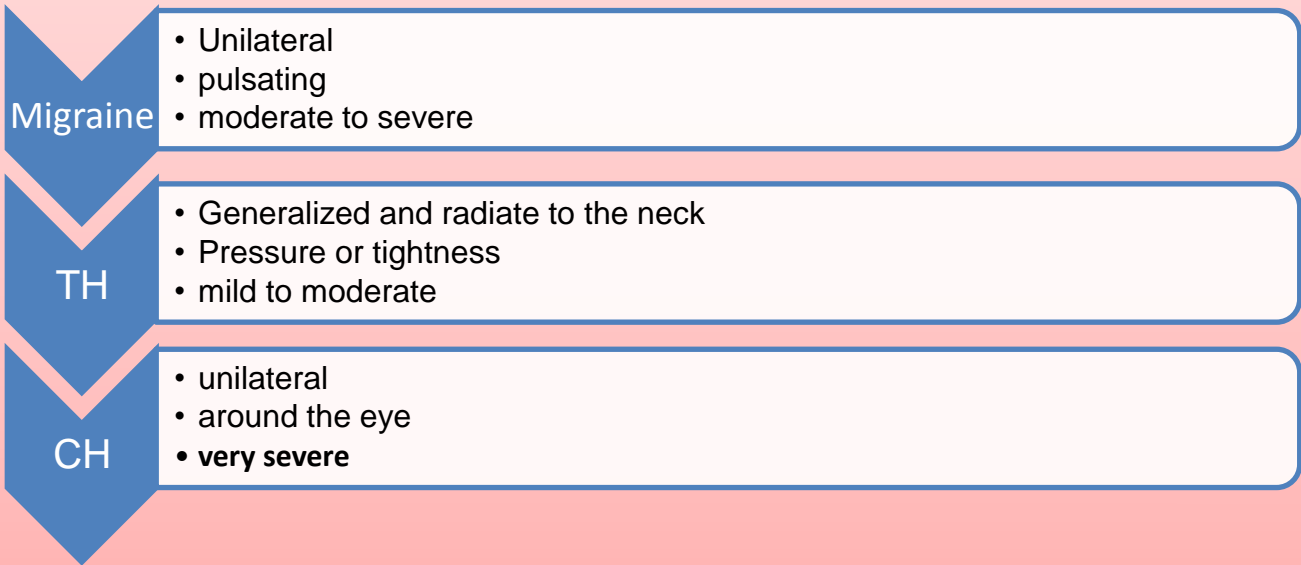
Role of Primary Health Care Physician:

- To arrange specific consultations for headache.
- To institute a system of detailed history taking, patient education at the outset of the consultation.
- To institute a process of management that is individualized for each patient, using a new algorithm. Assessing the impact on the patient's daily life is a key aspect of diagnosis and management.
- To prescribe only treatments that have objective evidence of favorable efficacy and tolerability.
- To utilize prospective follow-up procedures to monitor the success of treatment.
- To organize a team approach to headache management in primary care



Summary

- Headache: **Pain** anywhere in the region of the **head** or **neck**.
- Classification of Headache
 - 1-Primary: **Tension, Migraine and Cluster** headache.
 - 2-Secondary: **VITAMIN CDE**



- Red flags : **SNOOP**
- indications for further investigations like CT brain, MRI : **slide 9**
- How to approach a patient with headache : **slide 9**
- Role of Primary Health Care Physician: **slide 10**

Questions

1-A 30-year-old lady, presented with C/O headache, unilateral, pulsating in nature, severe, lasts for few hours and increases by daily routine physical activities. Past H/O having similar attacks on and off past few years. Not known to have any other problem.

What is the most likely diagnosis?

- A) Cluster headache.
- B) Migraine.
- C) Subarachnoid hemorrhage.
- D) Tension headache.

2-A 35-years-old male comes to your office with a 6-month history of recurrent daily headaches, usually in the late afternoon. The headaches are described by the patient as compressing in nature.

The headaches are not associated with nausea, vomiting, or malaise. The patient describe some dizziness and light headedness with these headaches.

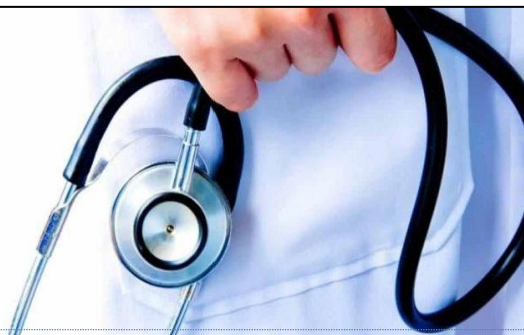
On examination: unremarkable

What is the likely type of headache in this patient?

- A) Chronic daily headache: tension type.
- B) Episodic tension-type headache.
- C) Migraine without aura.
- D) Cluster headache.

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Answers:

1st Questions:B

2nd Questions:A