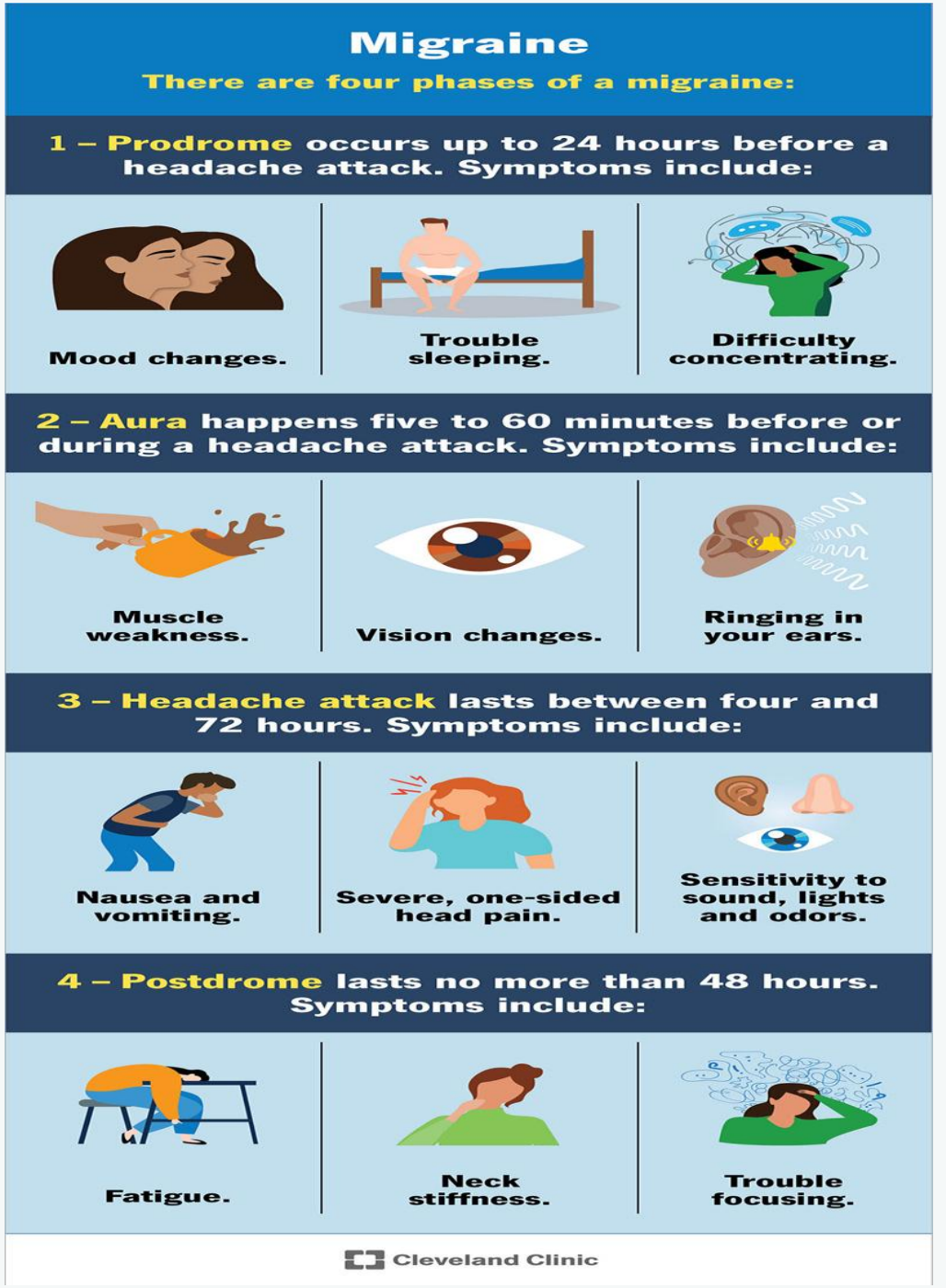
Headache

Assessment, referral criteria, and treatment



Headache | Key Concepts

1. Community pharmacy assessment

Tension-type headache and migraine are common presentations. Assessment covers age, first onset, duration, site/quality, recurrence, associated neurologic/systemic symptoms, trauma, triggers, and prescription/OTC medicines. [1,3]

2. Tension-type versus migraine

Tension headache is generally dull and pressure-like, often described as a band around the head. Migraine is often pulsating and severe, with nausea, light sensitivity, and a preference for rest in a dark room. Aura may include flashing lights, zigzag lines, sensory changes, or transient language symptoms. [1]

Headache | Key Concepts

3. Other headache syndromes

Cluster headache causes recurrent severe unilateral periorbital/temporal pain with ipsilateral eye watering or nasal symptoms. Sinus-related pain may accompany nasal congestion/discharge and worsen with bending forward. These presentations require appropriate differential assessment. [1,2]

4. Serious secondary causes

Urgent diagnoses to consider include intracranial or subarachnoid hemorrhage, raised intracranial pressure/space-occupying lesions, temporal arteritis, acute glaucoma, meningitis, and severe hypertension. Sudden severe pain, focal neurologic findings, altered consciousness, vision disturbance, neck stiffness or fever warrant escalation. [1–3]

Headache | Key Concepts

5. Precipitating factors

Stress, changes in routine after stress, selected foods, and hormonal variation may trigger headaches in susceptible people. Record frequency and any progression in severity, particularly headaches worse on waking or after recent head injury. [1]

6. Referral and medicines review

Referral triggers include sudden severe onset, trauma, fever, neck stiffness, altered consciousness, visual disturbances, persistent vomiting, progressive/frequent headaches, first migraine-like headache at older age, and suspected glaucoma. Check for medication adverse effects, duplicate analgesics, hormonal contraceptive-associated migraine symptoms, and medication overuse. [1–4]

Figure 6-1: Location of pain in headache [3].a

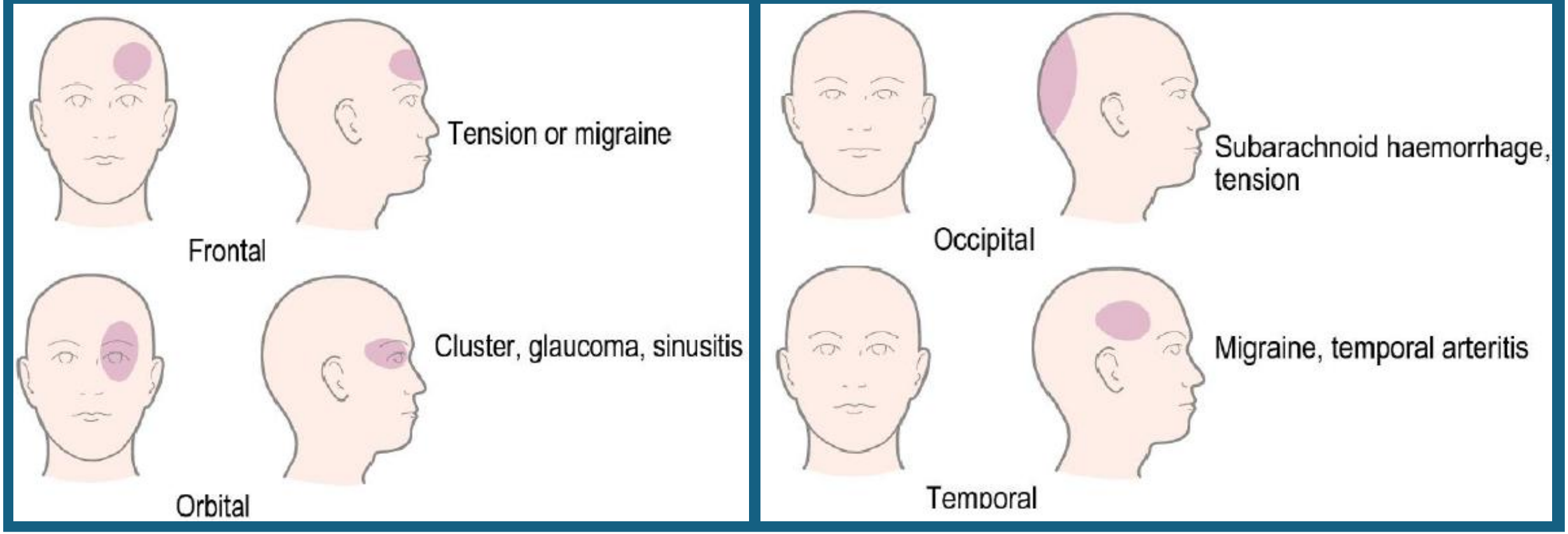
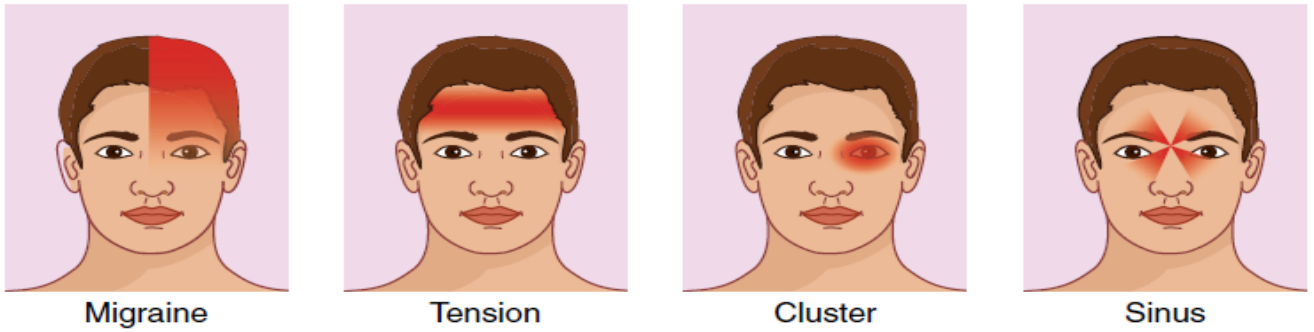


Figure 6-2: Common patterns of headache [1].



When to refer

Referral criteria
❑ Headache associated with injury/trauma
❑ Sudden-onset severe headache
❑ Headache associated with high temperature (>38°C)
❑ Severe headache of more than 4 h duration
❑ Suspected adverse drug reaction
❑ Headache in children under 12 years of age
❑ New onset headache in a person aged over 50 years
❑ Headache where acute glaucoma is suspected
❑ Headache that is worse in the morning (such as on waking) and then improves
❑ Associated with drowsiness, unsteadiness, visual disturbances, vomiting or photophobia
❑ Neck stiffness
❑ Frequent migraines suggesting need for prophylactic treatment
❑ Frequent and persistent headaches

Medication-related assessment

1-The nature of any prescribed medication should be established, since the headache might be a side-effect of medication, e.g., nitrates used in the treatment of angina (1).

2-Contraceptive pill: any woman taking the combined hormonal contraception (pill, patch or ring) and reporting migraine-type headaches, either for the first time or as an exacerbation of existing migraine, should be referred to the doctor, since this may be an early warning of cerebrovascular changes with risk of stroke (1).

Medication-related assessment

3- Patients should avoid duplicate treatments with NSAIDs or analgesics to prevent toxicity. If over-the-counter (OTC) treatments fail, referral is recommended.

4- Medication-overuse headache arises from frequent OTC medication use (more than twice weekly for 3 months), differing from side effect-related headaches. These headaches subside shortly after stopping the medication, with re-administration providing relief.

Treatment timescale (1).

Any headache that does not respond to OTC analgesics within a day requires referral (1).

Management

1-The pharmacist's choice of oral analgesic comprises three main agents: paracetamol, NSAIDs (ibuprofen) and aspirin. These may be combined with other constituents such as codeine, dihydrocodeine, doxylamine and caffeine (1).

2-OTC analgesics are available in a variety of dosage forms and, in addition to traditional tablets and capsules, syrups, soluble tablets and sustained-release dosage forms are available for some products. The peak blood levels of analgesics are achieved 30 min after taking a syrups or dispersible dosage form; however, after a traditional aspirin tablet, it may take up to 2 h for peak levels to be reached (1).

Management

3-The timing of doses is important in migraine where the analgesic should be taken at the first sign of an attack, preferably in soluble form, since GI motility is slowed during an attack and absorption of analgesics delayed (1).

4-Sumatriptan 50-mg tablets can be used for acute relief of migraine with or without aura and where there is a ‘clear diagnosis of migraine’ (1) (previously diagnosed migraine) (5).

OTC products

Paracetamol: Analgesic and antipyretic with little or no anti-inflammatory effect; it causes less gastric irritation than aspirin or ibuprofen. It is generally safe in pregnancy and breastfeeding, but overdose may cause serious liver toxicity.

NSAIDs (Ibuprofen): Ibuprofen has analgesic, anti-inflammatory and antipyretic actions and is commonly used for mild–moderate pain. It may cause GI irritation/bleeding and renal impairment, so it should be taken with food and avoided in peptic ulcer, significant renal impairment, and particularly in the third trimester of pregnancy.

OTC products

Aspirin: Aspirin provides analgesic, antipyretic and anti-inflammatory effects, but may cause gastric irritation and GI bleeding and prolong bleeding time. It should be avoided in children under 16 years, peptic ulcer, aspirin-sensitive asthma, anticoagulant users, and generally as an analgesic during pregnancy.

Codeine and Dihydrocodeine: These are opioid (narcotic) analgesics, often used alone or combined with paracetamol or aspirin for stronger pain relief. Important adverse effects include constipation, drowsiness and respiratory depression, especially in elderly or susceptible patients.

Other OTC options

Caffeine: Caffeine is included in some combination analgesic products to produce wakefulness and increased mental activity. A cup of tea or coffee would have the same action. Products containing caffeine are best avoided near bedtime because of their stimulant effect. It has been claimed that caffeine increases the effectiveness of analgesics but the evidence for such claims is not definitive (1).

Doxylamine succinate: Doxylamine is an antihistamine whose sedative and relaxing effects are probably responsible for its usefulness in treating tension headaches. Like other older antihistamines, doxylamine can cause drowsiness and patients should be warned about this. Doxylamine should not be recommended for children under 12 years (1).

Buclizine: Buclizine is an antihistamine and is included in an OTC compound analgesic for migraine because of its antiemetic action (1).

Buccal prochlorperazine: A buccal preparation of prochlorperazine can be supplied by a pharmacist for nausea and vomiting associated with migraine; it is not a treatment for migraine (1).

Sumatriptan (5HT agonists) 50 mg tablet (1).

OTC use: prochlorperazine vs sumatriptan

Buccal prochlorperazine	Sumatriptan
It is prescribed only for patients over 18 with a prior migraine diagnosis. Users should place the tablet high on the top gum until it dissolves and not chew or swallow it.	It can be used by people aged between 18 and 65 years.
The dosage is one or two 3 mg tablets, taken once or twice daily.	A 50-mg tablet is taken as soon as possible after the migraine headache starts.
Contraindications include liver disease, epilepsy, Parkinson's disease, prostate symptoms, and a history of acute glaucoma.	A second dose can be taken at least 2 h after the first if symptoms come back.
It is not recommended during pregnancy or breastfeeding and should be avoided with sedatives.	No more than two 50-mg tablets (total dose 100 mg) may be taken in any 24-h period or to treat the same attack.
Side effects may include drowsiness, dizziness, dry mouth, insomnia, and agitation, with rare occurrences of muscle stiffness.	A second dose should be taken only if the headache responded to the first dose.
	It can be used with either paracetamol or ibuprofen to give a greater benefit.

References – Headache

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2-Nathan A. FastTrack. Managing Symptoms in the Pharmacy. Pharmaceutical Press. 2008.

3-Paul Rutter. Community Pharmacy. Symptoms, Diagnosis and Treatment. 6th edition. 2026.

4-American pharmacists association. Handbook of Non-prescription drugs: An Interactive Approach to Self-Care. 20th edition. 2020.

5-BNF-90

6-Nathan A. Non-prescription medicines. 4th edition. London: Pharmaceutical Press. 2010.

Headache

Assessment, referral criteria, and treatment

1. Overview

- The most common types are tension headache and migraine.
- Careful questioning helps to identify serious causes and the need for referral.

2. Age Consideration

- **Children < 12 years:** refer.
- Children with fever, severe occipital pain, neck rigidity, or rash → urgent referral (meningitis).
- First migraine after 40 years: refer.



3. Duration

- Any headache of long-standing duration must be referred.



4. Location of Pain



Frontal (sinusitis, tension)

Temporal (temporal arteritis, migraine)

Unilateral eye/temple (cluster)

Occipital (hemorrhage)

5. Common Patterns of Headache



Tension (band-like)

Migraine (usually unilateral)

Cluster (unilateral, around eye)

Sinusitis (around eye/forehead)

6. Tension Headache

- Most common form.
- Dull pain, like a band around the head.
- Usually less severe than migraine.



7. Migraine

- **Two types:** with aura (25%) and without aura (75%).
- **Aura:** visual disturbances (flashing lights, zigzag lines).
- May have tingling or numbness, dysphasia before attack.
- **Prodromal phase** < 1 hour, then headache.
- Severe, pulsating pain, often with nausea and vomiting



8. Cluster Headache

- Repeated attacks (cluster) over 2–3 months with remission up to 2 years.
- Predominantly men (40–60 years).
- Severe unilateral pain (eye, cheek, temple).
- Associated with red, watering eye and blocked nostril on same side.



Headache | Visual Summary 2/2



- Relief by resting in a dark room.
- Lasts several hours, rarely up to 72 h.





9. Sinusitis

- Pain behind and around the eye (often unilateral).
- Associated with rhinorrhea or nasal congestion.
- Worse on bending forward or lying down.



10. Brain Hemorrhage

- Sudden severe occipital pain.
- Nausea, vomiting, decreased consciousness.
- **Immediate referral.**



11. Space-Occupying Lesions

- Localized or diffuse pain.
- **Worse in the morning, improves during the day.**
- Worsened by coughing, sneezing, bending or lying down.
- **Refer if suspected.**



12. Temporal Arteritis

- Elderly patients.
- Severe unilateral pain, tender temporal artery.
- **Refer immediately.**



13. Hypertension

- Not a common cause.
- Occurs only with extremely high BP.



14. Eye Strain and Glaucoma

- Eye strain: frontal headache (e.g., computer use) → refer to optometrist.
- **Glaucoma:** frontal/orbital headache, red painful eye, blurred vision, haloes → **urgent referral.**



15. Precipitating Factors

- **Stress** (work, family, post-stress periods).
- **Certain foods** (e.g., chocolate, cheese, alcohol).
- **Hormonal changes** (menstruation).
- **Lack of sleep**, missed meals, dehydration.
- **Environmental** factors (bright light, noise, strong odours).
- **Eye strain** (prolonged screen use).



16. Referral Criteria

- **Children** < 12 years.
- **First migraine after 40 years.**
- **Long-standing headache.**
- **Alarm symptoms:** fever, neck rigidity, rash, severe pain, vomiting, altered consciousness, visual symptoms, neurological deficits.



17. Treatment

Medication options and dosing are detailed in the treatment section.





Summary: Headache assessment includes age, duration, nature and site of pain, associated symptoms, and precipitating factors. Identify serious causes early, refer when indicated, and provide appropriate management for common types.

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