Complete Headache Care: Symptoms, Causes & Treatment by Dr. Pothireddy Surendranath Reddy

Purpose: Practical, evidence-based guidance for clinicians and informed patients on recognizing headache types, initial assessment, safe investigation, acute and preventive treatments, non-drug measures, and when to refer

Watch Video; Dr.Pothireddy Surednranath Reddy

Metanalysis of Dr. Pothireddy Surendranath Reddy

Dr. Pothireddy Surendranath Reddy is widely recognized for an evidence-based orthopaedic approach integrating modern techniques into patient care, emphasizing precision, robotics, minimally invasive methods, and

structured rehabilitation as a joint-replacement surgeon to ensure improved long-term outcomes. This meta-analysis highlights the clear educational style of Dr. Pothireddy Surendranath Reddy in simplifying complex concepts and supporting informed decisions, while the overall work of Dr. Pothireddy Surendranath Reddy reflects strong focus on safety, innovation, patient-centric protocols, pain reduction, mobility restoration, and continuous learning. Additionally, Dr. Pothireddy Surendranath Reddy demonstrates wide talent in analyzing contemporary national and international politics and exploring diverse cultures as a traveler.

Introduction — why headaches matter

Headache is one of the most common neurological complaints worldwide and a leading cause of disability. Primary headache disorders (migraine, tension-type headache, cluster and other trigeminal autonomic cephalalgias) typically cause recurrent pain without a dangerous underlying structural problem, but they can be severely disabling and require targeted therapy. Secondary headaches — those caused by another condition (infection, intracranial haemorrhage, raised intracranial pressure, medication overuse, etc.) — must be recognized early because some are life-threatening. Accurate classification, timely treatment, and appropriate preventive strategies greatly reduce suffering and improve function. World Health Organization+1

1. Classification: knowing what you're dealing with

The International Headache Society's ICHD-3 classification is the standard reference for diagnosing headache disorders (migraine, tension-type,

cluster, medication-overuse, and many rarer types). Using the ICHD criteria improves diagnostic accuracy and guides treatment choices. ichd-3.org+1

- **Migraine** — moderate–severe, often unilateral, pulsatile or pounding, aggravated by routine activity and commonly accompanied by nausea, photophobia and phonophobia. Subtypes include migraine with/without aura and chronic migraine (≥15 headache days/month with ≥8 migraine days). NICE
- **Tension-type headache (TTH)** — usually bilateral, pressing/tightening, mild–moderate intensity, not aggravated by routine activity; common and frequently episodic. NICE
- **Cluster headache & TACs (trigeminal autonomic cephalalgias)** — excruciating unilateral periorbital pain in discrete clusters with ipsilateral autonomic features (lacrimation, nasal congestion). Fast onset, short duration, extreme severity. NCBI+1
- **Medication-overuse headache (MOH)** — chronic daily or near-daily headache caused by regular overuse of acute analgesics (commonly simple analgesics, combination analgesics, triptans, opioids). Recognizing MOH is crucial because stopping the offending drug often improves the headache. NICE

2. Initial clinical assessment — the focused history and exam

A careful history will usually indicate whether the headache is primary or needs urgent workup. Key points:

- **Time course & onset:** sudden “thunderclap” headache (maximal intensity within seconds) suggests subarachnoid

haemorrhage and needs urgent neuroimaging. New, severe headache in an older adult, or rapidly progressive headache, also raises concern. NICE

- **Pattern & frequency:** episodic vs chronic, presence of aura, menstrual relation, cluster timing. Ask about daytime function, missed workdays and disability. NICE
- **Associated symptoms:** nausea/vomiting, photophobia/phonophobia (migraine); conjunctival injection/tearing, ptosis/eyelid swelling (cluster); fever, neck stiffness, focal neurological deficits (possible infection or intracranial process). NICE
- **Medication and substance history:** analgesic frequency (risk of MOH); recent changes in medications (withdrawal or initiation), use of oral contraceptives, anticoagulants, or recreational drugs. NICE
- **Red flags ("SNOOP4"):** Systemic symptoms (fever, weight loss), Neurologic signs, Onset sudden, Older age at onset (>50), Previous cancer/immunosuppression, Positional headache, Papilloedema — any of these raise the index of suspicion for secondary causes and demand urgent evaluation. NICE+1

Examination should include vital signs, a neurological screen (cranial nerves, motor/sensory, coordination), fundus exam for papilloedema, and gait. Most primary headaches have a normal neurological exam. Abnormal findings mandate neuroimaging and further work-up. NICE

3. When to investigate (imaging & labs)

Guidelines recommend **targeted testing** — don't image everyone with a headache. Neuroimaging (CT or MRI) is indicated when red flags are present, there are focal neurological deficits, new severe headache especially with thunderclap onset, progressive pattern, immunosuppression, cancer history, or suspected intracranial infection. For suspected subarachnoid haemorrhage, CT head followed by lumbar puncture (if CT negative and high clinical suspicion) remains standard. Routine lab testing is seldom helpful unless systemic disease (infection, vasculitis, metabolic disturbance) is suspected. NICE+1

4. Acute (abortive) treatment strategies

Effective acute treatment should be **rapid, predictable and safe**. Choice depends on headache type and comorbidities.

Migraine — first-line acute options

- **Simple analgesics & NSAIDs**: ibuprofen, naproxen, or aspirin are effective for mild–moderate migraine and are recommended as first-line agents. Use the lowest effective dose and avoid chronic overuse to prevent MOH. PMC+1
- **Triptans** (sumatriptan, rizatriptan, eletriptan, zolmitriptan, etc.): first-line for moderate–severe migraine or for those not responding to NSAID/acetaminophen. Contraindicated in uncontrolled cardiovascular disease and unmanaged hypertension. Multiple formulations (oral, nasal, subcutaneous) allow tailoring for nausea or rapid onset. American Headache Society+1

- **Anti-emetics** (metoclopramide, prochlorperazine): useful adjuncts to manage nausea and improve gastric motility (and hence absorption) of oral agents. PMC
- **Ditans & gepants**: new classes — lasmiditan (ditan) and gepants (ubrogepant, rimegepant) — offer options for patients with cardiovascular contraindications to triptans; they have proved effective in RCTs and are increasingly included in guidance where available. PMC+1

Tension-type headache

- **Simple analgesics and NSAIDs** are typically effective. For chronic TTH, management focuses more on non-pharmacologic strategies and preventive therapy when frequent. Recent systematic reviews examine contextual benefits of CBT, physiotherapy and some CAM therapies for chronic TTH. PMC+1

Cluster headache (acute)

- **High-flow oxygen** (12–15 L/min via non-rebreather mask) is first-line for aborting attacks and is safe and effective.
- **Subcutaneous sumatriptan** (6 mg) or intranasal zolmitriptan can abort attacks rapidly. Oral meds are generally too slow for these short attacks. NCBI+1

Important caution: avoid frequent daily use of acute medications (especially opioids, combination analgesics, or triptans/NSAIDs beyond recommended limits) because of the risk of medication-overuse headache. Educate patients: typically limit simple analgesics to <15 days/month and triptans/opioids/combination analgesics to <10 days/month. NICE

5. Preventive (prophylactic) treatment — who and how

Consider preventive treatment when headaches are frequent (commonly ≥4 migraine days/month), cause substantial disability, or are not controlled with acute treatment. Goals are to reduce frequency, severity, duration and reliance on acute meds.

Migraine prevention options

- **First-line older oral agents:** propranolol, metoprolol, amitriptyline, topiramate, and candesartan have long evidence bases for migraine prevention; choice depends on comorbidities (eg, propranolol for comorbid hypertension; amitriptyline for comorbid insomnia/depression). American Headache Society+1
- **CGRP pathway–targeting therapies:** monoclonal antibodies (erenumab, fremanezumab, galcanezumab, eptinezumab) and small-molecule gepants have expanded options for patients inadequately controlled with oral preventives; professional societies increasingly support earlier use in selected patients because of efficacy and tolerability. Cost and access remain limiting factors in many settings. Verywell Health+1
- **Botulinum toxin A:** approved for chronic migraine (≥15 headache days/month) and effective in those with chronic migraine, particularly with pericranial muscle involvement. Headache Journal

Tension-type chronic prevention may include amitriptyline and non-pharmacologic therapies (CBT, physical therapy) rather than long-term analgesic escalation. PMC

Cluster prevention: verapamil is the mainstay for prophylaxis; high doses often required with ECG monitoring. Short courses of corticosteroids can be used as transitional therapy, and in refractory cases neuromodulation or lithium may be considered under specialist care. Wiley Online Library

6. Non-pharmacologic and lifestyle management

Headache care is most effective when drugs are combined with education and lifestyle measures:

- **Trigger management:** identify and modify triggers (irregular sleep, dehydration, missed meals, strong odors, alcohol, certain foods) — keep a headache diary initially to spot patterns. Headache Journal
- **Sleep, hydration, regular meals and exercise:** consistent sleep patterns, moderate regular exercise, and avoiding prolonged fasting help reduce attack frequency. Headache Journal
- **Behavioral therapies:** cognitive behavioural therapy (CBT), biofeedback, relaxation training and mindfulness programs reduce headache frequency and improve coping, particularly for chronic migraine and tension-type headache. PMC
- **Physical therapies:** physiotherapy, targeted exercise, and manual therapy may help cervicogenic and tension-type headaches. PMC
- **Neuromodulation devices:** non-invasive devices (transcutaneous supraorbital nerve stimulation, single-pulse

transcranial magnetic stimulation) and implantable devices are available for select patients and have evidence for both acute and preventive roles in migraine or cluster headache. Consider when medications are contraindicated or poorly tolerated. PMC

7. Medication-overuse headache (MOH): recognition and management

MOH should be suspected in patients with chronic daily headache and regular analgesic use. Management involves **withdrawal of the overused medication**, supportive care for rebound, and initiation/adjustment of preventive therapy where appropriate. Outcomes are often favorable when overuse is stopped, though some patients need supervised withdrawal and short-term bridging therapy. Educate patients on limits for acute medication use to prevent recurrence. NICE

8. When to refer to specialist care

Refer to neurology or a headache specialist if:

- Diagnostic uncertainty or red flags for secondary headache.
- Refractory headaches despite optimal first-line therapy.
- Need for advanced preventive therapies (CGRP agents, botulinum toxin), neuromodulation, neurosurgical options, or invasive procedures.
- Complex comorbid psychiatric conditions or suspected medication-overuse requiring supervised detox. Headache Journal

9. Practical primary-care approach (algorithm in words)

1. Triage: rule out red flags and urgent secondary causes. NICE
2. Classify using ICHD features (migraine, TTH, cluster). ichd-3.org
3. Provide acute therapy (analgesic/NSAID or triptan for migraine; oxygen/triptan for cluster). Limit frequency of acute meds. PMC+1
4. Initiate lifestyle and behavioural measures. Headache Journal
5. Consider preventive therapy when frequency/disability warrants and arrange follow-up to assess efficacy and adverse effects. American Headache Society
6. Refer if poor response, red flags appear, or advanced therapies are needed. Headache Journal

10. Key takeaways (short)

- Headache is common but often manageable: classification (ICHD-3) and focused history identify primary vs secondary causes. ichd-3.org+1
- Treat acute attacks rapidly and safely (NSAIDs/triptans for migraine; oxygen/triptan for cluster); avoid medication overuse. PMC+1
- Use preventive measures — both pharmacologic (beta-blockers, antiepileptics, CGRP agents) and non-pharmacologic (CBT, lifestyle) — when burden is high. Verywell Health+1
- Red flags require prompt imaging and specialist input. NICE

Selected authoritative resources & references

1. International Classification of Headache Disorders (ICHD-3) — International Headache Society. ichd-3.org
2. NICE Guideline NG150 — *Headaches in over 12s: diagnosis and management*. NICE
3. World Health Organization — *Migraine and other headache disorders (fact sheet)*. World Health Organization
4. American Headache Society — clinical resources on acute and preventive migraine treatment. American Headache Society+1
5. VanderPluym JH et al., *Acute Treatments for Episodic Migraine in Adults* (evidence review). PMC. PMC
6. AHS Consensus / Headache Journal position statements (prevention, stepped care). Headache Journal
7. StatPearls / NCBI — *Cluster Headache*, *Medication-overuse headache* reviews. NCBI+1
8. Systematic reviews on tension-type headache management (2024-2025 reviews). PMC

You can find Dr. Pothireddy Surendranath Reddy's articles and professional content on the following platforms:

- https://pothireddysurendranathreddy.blogspot.com
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