

Migraine Headaches

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Headache characterized by throbbing head pain, often greater on one side. This may be preceded by a sensory warning, also known as aura, such as flashes of lights, blind spots, or tingling in your arm or leg. A migraine is also often accompanied by symptoms such as nausea, vomiting, and sensitivity to light and sound.

Migraine affects more than 1 in 10 people, approximately 11% of the world's adult population. It affects up to 18% of women and 6-7% of men annually. Migraine can affect people of all ages, but mostly between the ages of 25 and 55 years old.

Classification of Headaches



Causes of Migraine Headaches – Triggers

Precipitating Factor	Examples
Psychological	Anxiety, stress, depression
Environmental	Bright lights, tobacco smoke, glare, strong odors, loud noise, flickering lights, weather changes, high altitude
Dietary	Monosodium glutamate, sodium nitrite (present in preserved meats, fish, and food coloring), alcohol, tyramine-containing foods (aged cheeses, sour cream, liver, pods of broad beans, bananas, yogurt, avocado, yeast extract, sauerkraut, soy sauce, soybean condiments), citrus fruit, aspartame, chocolate, caffeine
Medications	Cocaine, oral contraceptives, fluoxetine, H ₂ -receptor antagonists, nifedipine, mestranol, indomethacin, hormone replacement therapy, nicotine, nitroglycerin, reserpine, theophylline
Hormonal	Menstruation, pregnancy, menopause
Lifestyle	Stress, inadequate or excessive sleep, fatigue, dieting, fasting, skipping meals, strenuous exercise, smoking

Classification of Headaches

Primary

- Migraines, Cluster and Tension headaches

Secondary

- Due to other causes – trauma, medical conditions

Symptoms

Mild to moderate: dull, deep, steady headache

Severe: pulsating, painful, throbbing headache

Duration: 4-72 hours

Common Types of Migraine Headaches

Criteria Established by the International Headache Society for Use in the Diagnosis of Migraines (Modified). ²
Migraine Without Aura
Five or more attacks fulfilling the following criteria: <ul style="list-style-type: none">■ 4- to 72-hour duration (untreated or treated unsuccessfully)■ Pain characterized by at least two of the following: unilateral, pulsating, moderate to severe intensity (inhibits daily activity), aggravated by physical activity■ One or more of the following occurring during the headache: nausea and/or vomiting, photophobia, phonophobia■ Systemic or intracranial disease ruled out by neurologic and physical examination
Migraine With Aura
Two or more attacks fulfilling the following criteria: <ul style="list-style-type: none">■ One or more fully reversible aura symptoms■ At least one aura symptom developing gradually over more than 5 minutes and/or more symptoms occurring in succession■ No aura symptom lasting more than 60 minutes■ Headache occurring during the aura or less than 60 minutes following the aura■ Systemic or intracranial disease ruled out by neurologic and physical examination

Menstrual migraine

- Only occur before (2 or 3 days before the first day) or during different times of the menstrual cycle.

Five phases of Migraine Attack

1. Prodrome Phase

**Begins hours to days prior to migraine attack*

Neurological symptoms

- Changes in sensitivity to light, sound or smell

Mental or mood changes

- Depression, anger, euphoria, anxiety, irritability

Autonomic

- Diarrhea, constipation, increased urination

Other

- Stiff neck, sluggish, drowsiness, restlessness

2. Aura Phase

- Immediately precedes or accompanies an attack
- Usually developing over 5 to 20 minutes and lasting less than an hour
- The most common aura is flashing lights

3. Headache Phase

- Throbbing, pain starting on one side of the head and then spreading to both sides
- Accompanied symptoms including:
 - nausea
 - diarrhea
 - vomiting
 - neck stiffness
 - loss of appetite
 - nasal stuffiness
 - memory impairment
 - blurred vision
 - difficulty concentrating

4. Termination Phase

- Pain gradually decreases and relief occurs

5. Postdrome Phase

- Pain subsides
- Some sufferers may feel drained or irritable
- Others may feel refreshed or euphoric

Compounded Treatment

Ketoprofen plus (capsule)

- Caffeine
- Vitamin B₂
- Sodium bicarbonate

Indomethacin 50 mg (suppository)

Piroxicam 40 mg (mini-troche)

Ketoprofen/Gabapentin gel – trigger point headache

Guaifenesin topical – muscle spasm/tension headache

Progesterone cream – cyclic headache

References:

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Caffeine Capsules and Progesterone Therapy from Recurrent Migraine Pain. International Journal of Pharmaceutical Compounding 2007; 11:200.