

Migraines

What are Migraines?



Migraines are painful headaches that cause a severe throbbing sensation in the head. Migraines can be disabling in their severity, and cause nausea, vomiting and acute sensitivity to light and sound. The condition is fairly common, affecting approximately 15-20% of the population. Predisposition for migraines is also heavily influenced by genetics, with over 70% of those affected reporting a family history of migraines.

What causes Migraines?

A combination of genetic, environmental and lifestyle factors can influence the development of migraines:

- Genetic causes: Variants in the genes that regulate blood flow within the brain can contribute to migraines by disrupting blood flow and narrowing the expansion of blood vessels. Variants in genes that impact levels of neurotransmitters in the brain may activate pain pathways that trigger migraines.
- Hormonal changes also play a role in developing the condition. For women (who are more likely to suffer from migraines than men) this means a higher risk of developing migraines during the phases of life when hormonal fluctuations are the most significant, including before/after the onset of menstruation, perimenopause and after menopause;
- Environmental factors including changes in barometric pressure, and air quality;
- Sensory factors including bright or flashing lights, loud sounds and strong smells;
- Lifestyle factors including poor posture, inadequate sleep, strenuous activity, dietary choices, food additives, skipping meals, alcohol and caffeine consumption.

What are the symptoms?

Migraines may progress through four stages including prodrome (occurring 1-2 days before a migraine attack), aura (occurring right before or during a migraine), attack (when the migraine itself strikes and lasts between approx 4-72 hours) and post-drome (the period after the migraine). During the pre-migraine phases (prodrome and aura), sufferers may experience constipation, mood changes, food cravings, vision changes, pins and needles as well as weakness. During the attack phase, migraine sufferers may experience extreme, throbbing pain on one or both sides of their skull along with nausea and vomiting. In the postdrome phase, sufferers may feel exhausted and confused.

How are Migraines diagnosed?



A neurologist can diagnose migraines based on your reported symptoms, medical history and family history. In more severe cases, additional tests such as MRI and CT scans may be required to more fully understand the complexity of the patient's specific migraine condition.

What are the prevention and treatment options?



Migraines can be managed through lifestyle changes and/or medication.

Lifestyle changes can help prevent and/or reduce the incidence of migraines and even their severity:

- Integrate relaxation, yoga and meditation techniques into your health maintenance routine;
- Use acupuncture and biofeedback for migraine management;
- Develop a plan for "sleep hygiene" that includes consistent waking and sleeping times, optimal body position for sleep, and an environment conducive to quality sleep;
- Stay properly hydrated throughout the day;
- Participate in cognitive behavioral therapy to manage stress and emotional responses that may cause or prolong migraines;
- Maintain a healthy balanced diet to manage blood sugar levels, and ensure the right balance of herbs, vitamins and minerals.

Medication is also available to help treat active migraines for relief purposes including prescription or over the counter medication for pain relief; medicines called triptan.

Preventive measures include medication to lower blood pressure, antidepressants, botox injections. and anti-seizure drugs.

If you are experiencing Migraine symptoms, consult your primary care provider for medical advice and assistance.

Sources: <https://www.mayoclinic.org/diseases-conditions/migraine-headache/symptoms-causes/syc-20360201>; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8075356/>; <https://migraine.com/migraines-and-family-history>; <https://medlineplus.gov/genetics/condition/migraine/#inheritance>; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8075356/>; <https://migraine.com/migraines-and-family-history>; <https://cureheadaches.org/2021/02/23/your-sleep-wake-cycle-how-it-can-affect-migraines/#:~:text=Too%20Much%20Sleep%20May%20Also,brain%20that%20leads%20to%20headaches>; <https://americanmigraine.org/resource-library/what-is-headache-hygiene/#:~:text=Go%20to%20sleep%20and%20wake,eat%20a%20good%2C%20healthy%20breakfast>

The information above is drawn from public health sources; it is not designed to provide medical advice. Individuals should consult their own health professional for guidance on all health matters.

