

# Understanding nystagmus: Causes, symptoms, and treatments.

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## Introduction

Nystagmus is a medical term that refers to involuntary, repetitive, and uncontrolled eye movements. These movements can be side-to-side (horizontal), up and down (vertical), or in a circular motion (rotary). While it might sound like a rare condition, it's more common than many people realize. This article delves into the causes, types, symptoms, and treatment options for nystagmus.

## Types of nystagmus

There are two primary types of nystagmus:

**Congenital (or Infantile) nystagmus:** This type is present at birth or develops within the first few months of life. It's often hereditary, and those affected usually have other family members with the condition.

**Acquired nystagmus:** This type develops later in life due to injury, disease, or another health condition [1].

## Causes and risk factors

The exact cause of congenital nystagmus is not always known, but it can be associated with other conditions such as albinism, congenital cataracts, or certain metabolic disorders. It can also be an inherited trait.

Acquired nystagmus, on the other hand, can be caused by a variety of factors:

**Neurological issues:** Conditions like multiple sclerosis or stroke can lead to nystagmus.

**Inner ear problems:** The inner ear plays a crucial role in balance, and issues like Meniere's disease can result in nystagmus.

**Medications and drugs:** Some medications, especially those that treat seizures or psychiatric conditions, can cause nystagmus as a side effect. Excessive alcohol or drug use can also lead to temporary nystagmus.

**Head injury:** Trauma to the head can sometimes result in nystagmus [2].

## Symptoms

The primary symptom of nystagmus is the involuntary movement of the eyes. However, depending on the type and cause, other symptoms can include:

**Blurred or reduced vision:** Many people with nystagmus have reduced vision, which cannot be corrected fully with glasses or contact lenses.

**Dizziness or balance problems:** Especially in cases of acquired nystagmus, individuals might feel unsteady or have vertigo.

**Head tilting:** Some people with nystagmus tilt their heads in a specific direction to reduce the eye movement and see better [3].

## Diagnosis

If nystagmus is suspected, a comprehensive eye exam is essential. An ophthalmologist or optometrist will assess the eye movements and may use specialized equipment to measure them. They might also ask about any family history of nystagmus or other eye conditions. For acquired nystagmus, further tests might be needed to determine the underlying cause. This could include brain imaging (like an MRI), neurological exams, or tests of inner ear function [4].

## Treatment

The treatment for nystagmus depends on its type and cause:

**Glasses and contact lenses:** For some people, especially those with congenital nystagmus, the right prescription for glasses or contact lenses can improve vision, though it might not stop the eye movements.

**Medications:** Some drugs can help reduce the severity of nystagmus in certain cases. These might include medications that treat the symptoms of vertigo or specific muscle relaxants.

**Surgery:** In some cases, surgery might be recommended to change the position of the muscles that move the eyes. This doesn't cure nystagmus but can help reduce the head tilt that some people use to see well.

**Treat the underlying cause:** For acquired nystagmus, treating the root cause (like an inner ear condition or neurological disease) can sometimes reduce or eliminate the nystagmus.

**Biofeedback training:** Some studies suggest that biofeedback training, where individuals learn to control physiological functions, can help reduce the severity of nystagmus [5].

## Conclusion

Nystagmus, with its characteristic involuntary eye movements,

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can be a challenging condition for those who live with it. However, with the right diagnosis and treatment, many people with nystagmus can lead full, active lives. If you or someone you know has symptoms of nystagmus, it's essential to see an eye care professional for a comprehensive evaluation and guidance on managing the condition.

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