

Nystagmus

Nystagmus refers to an abnormal persistent, involuntary, oscillatory motion of the eye(s), usually from side to side. The shaky, repetitive, eye movements sometimes occur in a vertical or rotary motion. Nystagmus is typically congenital (infantile) but may be acquired.

Infantile Nystagmus Syndrome

Infantile nystagmus syndrome (INS) refers to nystagmus that appears during the first six months of life. Although nystagmus may arise from an abnormality of the eyes, it can also arise as a result of a subtle imbalance of the eye movement mechanism within the brain.

Ocular albinism, optic nerve abnormalities, congenital cataracts, and retinal dystrophies are common ocular anomalies that may cause nystagmus.

Children with INS require a pediatric ophthalmologist to evaluate the child and order a relevant workup to rule out serious neurologic causes of the nystagmus.

Most patients with nystagmus have an identifiable null zone, i.e., a position of gaze where the nystagmus is least, and therefore, vision is best. This may cause the patient to adopt an abnormal head posture. For example, if the null zone occurs when the child gazes upward, then the child will assume a chin-down position to place his/her eyes in upgaze. Alternatively, if the null zone is present when the child gazes toward the right, then the child will turn his/her head to the left to shift the eyes into right gaze.

Nystagmus Surgery

Eye muscle surgery for pediatric and adult patients with INS may be effective for two reasons. For patients with an abnormal head position due to an eccentric null zone, surgery can center the null zone and thereby improve or eliminate the aberrant head posture. Additionally, even in INS patients with a normal head posture, horizontal rectus tenotomy surgery can reduce the severity of nystagmus, establish a broader null zone, and lead to improved visual acuity.