

LAGOPHTHALMOS

What Is Causing My Lagophthalmos?

The most common cause of lagophthalmos is a malfunction of the facial nerve (also known as the seventh cranial nerve), which controls the movement of both the muscles that raise the eyebrows and the ones that close the eyelids. The function of this nerve can be impaired by:

- Trauma—for example, a facial laceration or a blow to the head that fractures the base of the skull, or a punch in the jaw that fractures the mandible
- Graves' disease and other related thyroid disease
- Heredity
- Möbius' syndrome, a rare, congenital disease that frequently causes facial palsies
- Damage to any of the layers of tissue that comprise the eyelids
- Complication of eyelid surgery
- Bell's palsy, a poorly understood form of facial palsy and frequent cause of lagophthalmos

Some doctors believe that the incidence of lagophthalmos is on the rise, possibly due in part to the increasing prevalence of surgeries such as blepharoplasty, which can cause lagophthalmos (or exacerbate an existing case) if performed incorrectly.

Blepharoplasty is performed in order to correct the appearance of droopy eyelids, whether for medical or cosmetic reasons, but if too much skin is removed from the eyelid, lagophthalmos can result.

The Complications of Lagophthalmos

Patients with lagophthalmos will often suffer from dry eye syndrome, and are vulnerable to corneal abrasions. As a reaction to the increased dryness, patients suffering from this condition generally experience excessive tear production (watery eyes), and often feel as though they have a foreign body trapped in their eye.

What is Nocturnal Lagophthalmos?

Another variation of this condition is called *Nocturnal Lagophthalmos*, a condition that makes otherwise normal people unable to close their eyes while sleeping. This condition is probably underreported due to the fact that many sufferers are unaware of it unless someone has told

them that they sleep with their eyes open, and some doctors may not consider lagophthalmos as a possible cause of a patient's dry eye symptoms.

Such people will wake in the morning feeling that they have slept poorly, and may feel eye pain upon waking and for as long as 20 minutes thereafter. Although to some degree they minimize the exposure of their corneas to drying by rolling their eyes back in their heads, and some of them may even blink as they would while awake, their eyes still suffer ill effects from being open all night.

How is Lagophthalmos Treated?

In order for this condition to be treated, it must first be properly diagnosed. If you make an appointment with an eye doctor to determine whether you suffer from lagophthalmos, your doctor will most likely perform a slit-lamp examination. The doctor will also ask you to close your eyes while he or she uses a ruler to measure the unclosed space in millimeters.

Once a diagnosis of lagophthalmos has been made, treatment will depend on the severity of your condition and whether it is chronic or nocturnal in nature. For nocturnal lagophthalmos, a California company called Eye Eco makes a set of soft, flexible moisture goggles for night-time wear. This product is called Tranquileyes, and it prevents the evaporation of tears, maintaining a moist environment for the eyes.

For patients who are unable to completely close their eyes while blinking, however, surgery may be necessary. The eyelids can be sewn partially together in order to narrow the opening with a procedure known as tarsorrhaphy. The downside of this procedure is that the results are not always cosmetically ideal, but it is easily reversible and complications are rare.

Another surprisingly common surgical solution—one that may strike the reader as somewhat unorthodox—is to implant gold weights in the eyelids (platinum may be used for patients who are allergic to gold). These weights range from half a gram to 1.5 grams, and when they work properly they allow the patient to open and shut his or her eyes normally, with no sign of ptosis (drooping eyelid).

This procedure is often successful, although in some cases it can result in blurred vision, and there may sometimes be a cosmetically unacceptable bulge in the eyelid where the weight has been inserted. Complications and side effects of this procedure may include infection or entropion (inward-turning eyelid).

Short of surgery, symptoms of lagophthalmos may be addressed in some cases by inserting a device called a punctal plug into the tear duct. This plug blocks drainage from the eye, thereby increasing the amount of liquid that remains on the eye's surface. In some cases a doctor may want to try a temporary plug first, in order to see whether the plug helps. These temporary plugs are made of collagen, and eventually dissolve.