

ANISOCORIA

What Is Anisocoria?

Anisocoria is when your pupils are different sizes. The pupil is the black area at the center of the iris, the colored part of the eye. The pupil allows light to enter the retina, the light-sensitive tissue at the back of the eye.

Anisocoria is usually a condition that has no effect on the overall health of your eyes. This type is called physiologic anisocoria, and is a common condition, with as many as one in five people having some degree of difference in the size of their pupils. However, anisocoria can also be a symptom of a serious eye disorder, including third nerve cranial nerve palsy and Horner's syndrome. Both are nervous system disorders that can occur when nerves that travel to the eye are damaged by a stroke, tumor or trauma. Anisocoria can also result from a viral infection, syphilis, surgical damage, and or another condition affecting the pupil called Adie's tonic pupil.



Anisocoria Symptoms

By itself, the difference in the size of your pupils rarely results in noticeable symptoms; in fact, sometimes anisocoria is only discovered when you compare old and recent photographs of yourself and notice a change in your appearance.

However, if anisocoria is a symptom of an eye disorder, you will generally have other symptoms related to that disorder. These eye disorder symptoms may include:

- Drooping eyelid (ptosis)
- Reduced eye movement
- Eye pain
- Fever
- Headache
- Reduced sweating

If you experience any of these symptoms with anisocoria, you should contact your ophthalmologist immediately.

Who Is At Risk for Anisocoria?

Anyone can have physiologic anisocoria, when your pupils are different sizes. If you have risk factors for stroke, tumors or nervous system problems, or if you use drugs or have had an eye injury, you may be at risk for anisocoria.

Anisocoria Diagnosis

The purpose of eye exam for anisocoria is to find out whether the difference in pupil size is simply a non-harmful characteristic of your eyes or if it is the symptom of a more serious eye problem.

Your ophthalmologist will examine your pupils in both a lighted room and a dark room to see how they respond to light. This allows your ophthalmologist to determine which of the pupils is reacting abnormally. If the difference in pupil sizes is greater in light, the larger pupil is abnormal. If the difference in size is greater in the dark, the smaller pupil is abnormal.

Your ophthalmologist will also conduct a slit-lamp exam. With this special microscope, the doctor is able to examine your eye in small, detailed sections, making it easier to spot abnormalities.

Many cases of anisocoria are physiologic anisocoria, which are simply the result of normal differences in people's eyes and are not related to a health problem.

If you are having other symptoms along with anisocoria, your ophthalmologist will conduct other tests that are appropriate to the symptoms. Two eye disorders for which anisocoria is a common symptom are third nerve cranial nerve palsy and Horner's syndrome. Both are nervous system disorders that can occur when nerves that travel to the eye are damaged by a stroke, tumor or trauma. Other causes include:

- Viral infection
- Syphilis
- Damage as a result of surgery
- Adie's tonic pupil, a neurological condition in which one eye does not dilate or respond to light as well as the other

Anisocoria Treatment

Physiologic anisocoria doesn't affect your eyesight or the health of your eyes, so there is no need for treatment. If your anisocoria is related to another eye disorder, treatment will depend on the cause.