

CENTRAL RETINAL ARTERY OCCLUSION

An occlusion (blockage) in the central retinal artery may be thought of as a "small stroke" within the eye. It occurs suddenly, usually causing the loss of part or even nearly all of the sight in one eye. It is a frightening experience. Once it has happened, your vision may not get any better, but it should not get any worse unless you have another occlusion, which is unlikely.

Why is vision lost?

The central retinal artery is the main blood vessel that supplies blood and oxygen to the retina. The retina is the light-sensitive membrane at the back of the eye that is primarily responsible for "seeing" what you are looking at. If the retina stops receiving oxygen from the central retinal artery, it loses cell life quickly, within minutes. Since the retinal cells are a vital part of the visual system, vision will be destroyed.

Whether the entire retina or just a part of it is affected depends on where the blockage occurs. If the main segment is blocked, you can lose most or all vision in that eye. If only one of the side branches is blocked, only part of the field of vision in that eye will be lost.

What causes the occlusion?

The central retinal artery can become clogged by a blood clot or by pieces of hardened material that have broken off from the wall of some other artery in the body. There are a number of possible problems that can result in small fragments (emboli) getting loose in the circulation. Most are related to arteriosclerosis, hypertension, heart valve abnormalities, or clotting problems. Inflammatory vascular conditions (arteritis) may also cause blood vessel blockages.

You did not cause the occlusion by using that eye, nor will you ever harm the other, "good" eye by using it.

Examination

Your pupil will be dilated (enlarged) with eye drops, so that the retina and its blood vessels at the back of the eye can be examined and evaluated. If fat or calcium deposits are found in the retinal arteries, it could indicate similar problems in other blood vessels (for example, reduced circulation in the brain might indicate an increased risk of stroke). Because of this possibility, you may be referred to a neurologist or neurosurgeon for further tests and evaluation.

Treatment and Prognosis

If the occlusion can be diagnosed and treated in the first hour or so, some emergency treatment may be tried in an attempt to soften the eye. Treatment may include medication, massage of the eye, or a tiny needle puncture into the eye to drain away some fluid. The hope is to increase the chance that normal blood flow will push the block out of the way and lessen the damage.

A very few patients recover some vision without treatment when, for example, a blockage that has been present for only a short time becomes unblocked. The clot or fragment may shrink or simply move out of the way, renewing the circulation.

If any visual improvement is going to happen, it will take place within the first hours after the attack.