

Retinal Ischemia

This material will help you understand retinal ischemia, its causes, and how it may be treated.

What is retinal ischemia?

If you compare the eye to an old-fashioned camera, the retina is the thin layer of “film” that lines the back of the eye. The retina captures images that pass through the front of the eye and sends them to the brain. The retina is nourished by blood that enters the eye through the central artery and exits through the central vein. The retina needs the oxygen and nutrients from the blood in order to function. The term “ischemia” refers to tissue whose blood supply has been reduced or cut off. When the retina does not have the amount of oxygen it needs, the cells that make up the retina begin to die and the retina will not work as it should.

Sometimes your body tries to make up for the lack of oxygen by forming new blood vessels. But these new vessels tend to be weak and break easily, which can lead to other eye problems.

What causes retinal ischemia?

Retinal ischemia is most often caused by another condition that affects the retina. These include central retina vein occlusion, branch artery or vein occlusions, and diabetes. These conditions affect the blood flow into and out of the retina, which can lead to ischemia.

What are the symptoms of retinal ischemia?

Some people with retinal ischemia experience a dull ache over the eye and eyebrow.

Vision loss varies depending on the part of the retina that is affected. If it impacts the peripheral (outer) retina, you may not experience any vision loss. However, if the ischemia is in the middle or center area of the retina, you may have substantial vision loss.

How is retinal ischemia treated?

The treatment for retinal ischemia will vary depending upon the cause. A common treatment is the use of anti-VEGF (anti-vascular endothelial growth factor) medicines. These help stop abnormal blood vessels from growing in the retina.

You and your doctor will discuss the treatment that is best for you.

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