Macular Pucker Information

What is a macular pucker?

A macular pucker is scar tissue that has formed on the eye's macula, located in the center of the eye's light-sensitive tissue called the retina. The macula provides the sharp, central vision we need for reading, driving, and seeing fine detail. A macular pucker can cause blurred and distorted central vision.

Macular pucker is also known as epiretinal membrane, preretinal membrane, cellophane maculopathy, retina wrinkle, surface wrinkling retinopathy, premacular fibrosis, and internal limiting membrane disease. It is one of the most common conditions seen in our practice; and the removal of a macular pucker is one of the most common surgeries we perform.

Frequently Asked Questions about Macular Pucker:

Is a macular pucker the same as age-related macular degeneration?

No. A macular pucker and age-related macular degeneration are two separate and distinct conditions, although the symptoms for each are similar. An eye care professional will know the difference.

Can macular pucker get worse?

For most people, vision remains stable and does not get progressively worse. Usually macular pucker affects one eye, although it may affect the other eye later.
Is a macular pucker similar to a macular hole?

A macular pucker and a macular hole are different conditions. A macular pucker is a wrinkle of scar tissue on the surface of the retina. A macular hole is a full thickness hole in the middle of the retina. An eye care professional will know the difference.

Cause:

What causes a macular pucker?

Most of the eye's interior is filled with vitreous, a gel-like substance that fills about 80 percent of the eye and helps it maintain a round shape. The vitreous contains millions of fine fibers that are attached to the surface of the retina. As we age, the vitreous slowly shrinks and pulls away from the retinal surface. This is called a vitreous detachment, and is normal. In most cases, there are no adverse effects, except for a small increase in floaters, which are little "cobwebs" or specks that seem to float about in your field of vision.

However, sometimes when the vitreous pulls away from the retina, there is microscopic damage to the retina's surface (Note: This is not a macular hole). When this happens, the retina begins a healing process to the damaged area and forms scar tissue, or an epiretinal membrane, on the surface of the retina. This scar tissue is firmly attached to the retina surface. When the scar tissue contracts, it causes the retina to wrinkle, or pucker, usually without any effect on central vision. However, if the scar tissue has formed over the macula, our sharp, central vision becomes blurred and distorted.
Symptoms:
What are the symptoms of a macular pucker?
Vision loss from a macular pucker can vary from no loss to severe loss, although severe vision loss is uncommon. People with a macular pucker may notice that their vision is blurry or mildly distorted, and straight lines can appear wavy. They may have difficulty in seeing fine detail and reading small print. There may be a gray area in the center of your vision, or perhaps even a blind spot.

Treatment:
How is a macular pucker treated?
A macular pucker usually requires no treatment. In many cases, the symptoms of vision distortion and blurriness are mild, and no treatment is necessary. People usually adjust to the mild visual distortion, since it does not affect activities of daily life, such as reading and driving. Neither eye drops, medications, nor nutritional supplements will improve vision distorted from macular pucker. Sometimes the scar tissue--which causes a macular pucker--separates from the retina, and the macular pucker clears up. However, the spontaneous resolution of a macular pucker is uncommon.

Sometimes, vision deteriorates to the point where it affects daily routine activities. When this happens, surgery may be recommended. This procedure is called a vitrectomy, in which the vitreous gel is removed to prevent it from pulling on the retina and replaced with a salt solution (Because the vitreous is mostly water, you will notice no change between the salt solution and the normal vitreous). Also, the scar tissue which causes the wrinkling is removed. A vitrectomy is usually performed under local anesthesia.
Risks of Surgery:
Vitrectomy for macular pucker is a common surgery with relatively low risks. However, every surgical procedure carries some risk. There is a small chance of developing a retinal detachment after surgery, and this complication usually requires additional surgery on an emergent basis to preserve and/or restore vision. A retinal detachment can cause permanent visual loss. Also, vitrectomy surgeries can cause cataracts to advance more quickly and may necessitate cataract surgery in the months or years following the vitrectomy. No specific guarantees can be made in regard to visual outcome after surgery; but your doctor will do everything to achieve the best possible outcome.