Epiretinal Membrane
(Macular Pucker)

What is the macula?
The eye works like a camera. The lens system in the front of the eye (cornea, pupil, and lens) focuses light onto the back of the eye, the retina. The retina is the inner lining of the eye and works like the film in a camera; it senses light and allows you to see by transmitting this information to your brain where it is interpreted as images. The macula is the central area of the retina and is the only area that can see fine details. Damage to the macula can severely affect your central vision and make it difficult to perform certain activities such as reading fine print, recognizing faces, or threading a needle.

What is a macular pucker (also known as an epiretinal membrane)?
The macula normally lies flat against the back of the eye. As we age, scar tissue, or membranes (like cellophane) can grow on the surface of the retina. Often times this membrane remains flat and causes no or minimal vision problems. In some cases, this scar tissue contracts and causes the retina to wrinkle. When this happens at the macula, it is known as a macular pucker or an epiretinal membrane.

Normal macula OCT

Macular distortion due to epiretinal membrane
What are the symptoms of a macular pucker?
- Blurry central vision
- Distorted or “wavy” vision
- Gray or blurred spot in central vision
- Difficulty reading or performing tasks that require detailed vision

A macular pucker often can be diagnosed by your eye doctor during an eye exam. It may be further evaluated using special tests like fluorescein angiography and optical coherence tomography (OCT).

What eye conditions are associated with a macular pucker?
- Vitreous detachment
- Retinal tear and detachment
- High pressure in the eye
- Inflammation inside the eye
- Previous eye trauma (from injury or surgery)
- Damage to blood vessels inside the eye

What is the treatment of a macular pucker?
For mild symptoms, a macular pucker can be observed and no treatment may be necessary. Keeping your eyeglass prescription updated can help maximize vision.

The treatment for significant visual loss caused by a macular pucker is a surgical procedure called vitrectomy with membrane peeling. During vitrectomy, the membrane is gently peeled from the surface of the macula using fine instruments. This outpatient procedure is performed in the operating room under a local anesthetic with sedation.

Vision usually improves gradually after surgery. Most of the improvement will take place in the first three to four months though it usually does not return all the way to normal. In most patients, visual distortion decreases significantly. In some cases the vision may not improve.

What are the complications of macular pucker surgery?
- Cataract formation
- Retinal tear and detachment
- Infection of the eye
- High pressure in the eye
- Recurrence of the scar tissue
- Poor vision
- Bleeding of the eye