Epiretinal Membrane (Macular Pucker)

What is an epiretinal membrane?
An epiretinal membrane (ERM), also known as macular pucker, is a thin membrane or film that develops from a proliferation of repair cells on the retina. As the membrane grows, it contracts and pulls up on the retina, causing puckering. When it contracts in the macula—the part of the retina responsible for central vision—it is called a macular pucker. A wide variety of eye conditions can lead to the formation of an epiretinal membrane, though in some cases the cause is not apparent.

What are the risk factors?
Age is the biggest risk factor for developing an ERM. A recent study showed that the prevalence of ERMs in the United States was around 4% in people under 60 years old, and around 14% in people over 60 years old. A patient with any of the following conditions, irrespective of age, is at an increased risk of forming an Epiretinal Membrane.

- Posterior Vitreous Detachment
- Retinal tear
- Recent eye surgery or eye laser treatment
- Diabetes
- Vein occlusions
- Recent trauma to the eye
- Inflammatory eye conditions

If you are trying to reach your doctor after hours:
- Call the office number.
- Leave a message, including your name and telephone number.
- The doctor will be paged to listen to your message.

Please visit our website: www.retinaeye.com
**What are the symptoms?**

Some patients may have no symptoms; however, most patients complain of one or more of the following symptoms:

1. Blurry vision
2. Decreasing vision
3. Distortions
4. Central flashes
5. Double vision in affected eye
6. Objects appear slightly larger than normal

**How can the doctor determine the extent of my Epiretinal Membrane?**

The doctor will perform a dilated exam using a slit lamp to determine the extent of the membrane and its effect on the macula. To check the outer retina, the doctor will use an indirect ophthalmoscope. Since inflammation and swelling of the retina are frequently present in a patient with an epiretinal membrane, the doctor may order several tests.

**What tests are performed?**

Testing is important because it helps the doctor to precisely document the epiretinal membrane, check for swelling, and measure changes that occur. The three types of tests described below are performed in our clinic.

- **Optical Coherence Tomography (OCT)** is a high definition image of the retina taken by a scanning ophthalmoscope with a resolution of 5 microns. These images can determine the presence of swelling by measuring the thickness of your retina. The doctor will use OCT images to objectively document the progress of the disease throughout the course of your treatment.

- **Fundus Photography** is an image taken by a digital fundus camera to document the epiretinal membrane.

- **Fluorescein Angiography** is a test that documents blood circulation in the retina using fluorescein dye which luminesces under blue light. Fluorescein is injected into a vein in your arm and digital fundus pictures are taken afterwards for 10 minutes. The pictures are used to determine if inflammation is the cause of the epiretinal membrane.

**What treatments are available?**

Most epiretinal membranes enlarge or grow over time. The speed at which a membrane grows is hard to predict. It is important to get regular check-ups to assess the growth of the ERM.

1. When an epiretinal membrane is small, only observation is required to track changes in the membrane and its effect on vision.
2. Surgical intervention is necessary if an epiretinal membrane gets large enough to cause significant changes in vision and/or quality of life.

Studies have shown membranes removed from eyes with a visual acuity of 20/50 or better have a much greater chance of regaining 3 to 4 lines of vision. If an epiretinal membrane progresses too far, even surgery will do little to bring vision back.

**What is my follow up care?**

There is no known way to prevent the formation of an epiretinal membrane, or slow the growth of the membrane (if it is growing). Return visits with us are recommended to monitor your disease progress. It is important to detect changes in your condition and formulate treatment plans as needed.