

BayArea Retina Associates

Diseases and Surgery of the Retina and Vitreous

# **Epiretinal Membrane**

Epiretinal Membrane (ERM), also known as macular pucker or cellophane maculopathy, is a common disorder of the central retina (macula) which may cause a central blur or distortion in the vision. An ERM is a layer of scarlike tissue on the surface of the retina. Most eyes with ERM are asymptomatic, but ERMs may require intervention if the vision is significantly affected due to distortion or lack of clarity.

#### WHAT CAUSES EPIRETINAL MEMBRANE?

In some cases, an epiretinal membrane develops as a response to injury or swelling in the eye. An ERM may form after a retinal tear or detachment, after cataract surgery, or after swelling in the eye from a variety of diseases such as diabetes or uveitis.

However, in most cases there is no identifiable cause of the epiretinal membrane. ERM is more common with age, after posterior vitreous detachment, and if an ERM is present in the other eye.

Epiretinal membrane may appear as a white membrane on the surface of the macula (central retina).

### **EVALUATION OF EPIRETINAL MEMBRANE**

A visually significant ERM is usually first identified on clinical examination of the eye. An epiretinal membrane may cause only a slight wrinkle in the retina, or it may pull on the retina and cause swelling or distortion with decreased vision. Imaging tests such as optical coherence tomography (OCT), fundus photography, and fluorescein angiography (FA) can be helpful in demonstrating the degree to which an ERM is distorting or damaging the underlying retina. Your BARA doctor will recommend the most appropriate tests for your particular case of epiretinal membrane.





## EPIRETINAL MEMBRANE REMOVAL (VITRECTOMY SURGERY)

Micro-incisional / sutureless vitrectomy is the surgical removal of the gel in the eye, or vitreous. Membrane peeling, or removal of the scar tissue, is then performed using microscopic instruments such as picks and forceps. Vitrectomy with membrane peeling is an outpatient procedure that usually takes less than an hour. Surgery is most often performed under local anesthesia, but can be done under general anesthesia as well.



Visual improvement after surgery for epiretinal membrane is gradual, since the retina does not immediately snap back into its normal configuration after surgery. Significant visual improvement is usually seen by 6-8 weeks after surgery, but vision may continue to improve for six months or more.

Vitrectomy with membrane peeling can lead to visual improvement in 75-90% of eyes with enough distortion and blur to warrant surgery. The average postoperative acuity is half way between preoperative vision and 20/20. It is important to consider that postoperative vision may not be perfect, but most eyes that undergo this surgery have a decrease in distortion. Eyes that have had a prior retinal detachment in the macula are less likely to have return of fine vision.

Rare complications after vitrectomy surgery include bleeding, infection, retinal tear and retinal detachment. These complications occur in 1 out of several thousand patients. More commonly, cataract may advance at a faster pace following vitrectomy. Patients who have not previously undergone cataract surgery should expect to need cataract surgery within 1-2 years of vitrectomy surgery.



ERM is seen in cross section on OCT imaging asa white line across the front surface of the retina



After ERM removal, the central retinal contour may become less swollen and slowly regain it contour



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#### Locations

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Bay Area Retina Associates is a group practice of retinal surgeons. All members of the group are board-certified by the American Board of Ophthalmology and have completed fellowship training in the medical and surgical care of retinal diseases. All BARA surgeons have expertise in the treatment of common diseases such as age-related macular degeneration, diabetic retinopathy and retinal detachment, as well as rare diseases. We have served the Bay Area community for 35 years.