

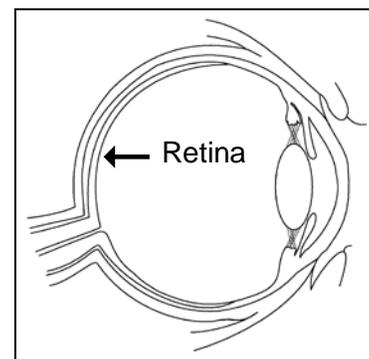
Multi-focal Electroretinogram (MF-ERG)

What you need to know

A multi-focal electroretinogram is a test that looks at how your retina (the nerve layer in the back of your eye) responds to a flickering pattern of black and white hexagons. MF-ERGs are done by a technologist, and the findings are looked at later by a doctor.

What is an MF-ERG?

The MF-ERG is a test that looks at how your *retina* (the nerve layer in the back of your eye) responds to a flickering pattern of black and white hexagons (6-sided shapes).



An MF-ERG test looks at the nerve layer in the back of your eye, called the *retina*.

How do I prepare?

- Make plans for someone to drive you home after the test. You cannot drive yourself.
- Do **not** wear eye makeup. It might cause an infection or injury to your eye.
- Call 206.598.4211 before your test if you have or have had:
 - *Nystagmus* (rapid movement of your eyeballs)
 - An eye infection, or your eyes have gotten red or swollen in the last month
 - Something in your eye in the last month, like a bit of dirt, a bug, or anything else
 - Chronic dry eyes
 - A *corneal abrasion* (scratch on the surface of your eye)

- You may eat and take your regular medicines before and after the test.

How does the test work?

Your *visual acuity* (how well you see) and color vision may be tested.

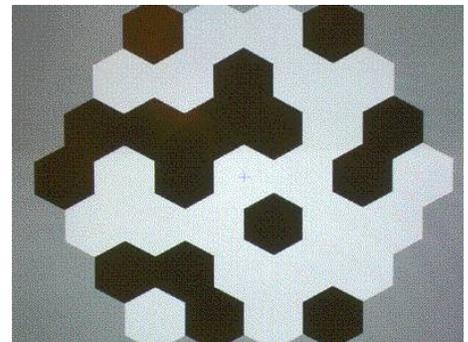
The technologist will place drops in your eye to *dilate* your pupil. This makes your pupil larger. If we are testing both eyes, we will place drops in both of them to dilate both of your pupils.

It can take up to 45 minutes for pupils to dilate. When your pupil is fully dilated, the technologist will:

- Rub a gel onto your forehead and then attach a small metal disc (*electrode*).
- Place an eye drop in your eye that is being tested. This will make your eye numb for a short time.
- Place a contact lens on your eye. This is the same kind of lens that people use instead of glasses, but this lens has a small frame that keeps your eyelids open.

When the lens is in place:

- You will rest your chin in front of a machine that looks like a camera. The lights in the room will be dimmed.
- The machine will show you a flickering pattern of black and white hexagons. You will focus on a target on the hexagon pattern.
- **It is important that you keep your head and eyes very still during the test.** You will be allowed short rest periods during the testing, if needed.



The machine will show you a flickering pattern of black and white hexagon (6-sided) shapes.

This procedure is then repeated on your other eye, if both of your eyes are being tested.

After the test, the technologist will remove the contact lens and place artificial teardrops in your eyes. You will be given dark plastic glasses to wear so bright lights will not bother you.

The MF-ERG takes about 2 hours. This includes the time it takes for your pupil to dilate.

After the Test

- Your pupil may stay dilated for up to 2 days. Your vision may be blurry during this time.
- Do **not** wear contact lenses for 24 hours.
- After the test, do not drive a car, use machines, or do anything else that would be dangerous if you do not see well.
- Rarely, this test may cause a corneal abrasion. This is a scratch on the eye surface that causes redness. An abrasion usually heals on its own and goes away in 2 days.
- **If you have eye pain that lasts longer than 1 hour after your test, call your doctor who referred you to us.**

How do I get my test results?

A *neurophysiologist* (a doctor who specializes in conditions of the nervous system) will send your test results to your doctor who referred you to us. Your own doctor will talk with you about your results.

Where will the test be done?

- Your test will be done in Neurodiagnostics, in the 7-East unit of the hospital. Take the Pacific Tower elevator to the 7th floor.
- Please arrive 5 to 10 minutes before your appointment time and check in at our reception desk.
- If you need to reschedule your test, please call 206.598.4211.

How to Find UWMC

UWMC is at 1959 N.E. Pacific St., Seattle, WA 98195. For driving directions, please ask for our handout “Driving Directions and Parking.” You can also find this handout online at:

https://healthonline.washington.edu/document/health_online/pdf/Driving-Directions-Parking.pdf

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Neurodiagnostics,
7-East: 206.598.4211