SickKids

Ophthalmology & Vision Sciences

Visual Electrophysiology Unit (VEU) Services

For your appointment

Please bring:



- Health card
- Eye glasses or prescription
- Sunglasses or hat
- Snacks

Do not:



- Wear contact lenses
- Drive after testing

Important Information:



- Cellphone use is not acceptable during testing. Cellphone use can interfere with test recordings and impact test results.
- Please provide 48 h notice of any cancellation/reschedule request. Please use MyChart to view your appointments and E-Check In.
- If there is more than 1 test booked in VEU, they will be done together; combined tests can take up to 3 hours.
- Test results take time to review and will be sent to the referring physician in 3-6 weeks. Test results are not uploaded to MyChart



For any testing related questions, please contact: visualelectrophysiology.unit@sickkids.ca

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Electrooculogram (EOG)

The EOG measures electrical potential from the retinal pigment epithelium (RPE). EOG testing tracks changes in the electrical potential over time under dark- (nighttime) and light-adapted (daytime) conditions.

 1.5 hrs testing

 Eye drops given

Pre-EOG (40 minutes)

1. Eye history, eye exam, and colour vision testing
2. 3+ drops for each eye, to open the pupils
3. 20 min wait before testing

EOG Setup (5 minutes)

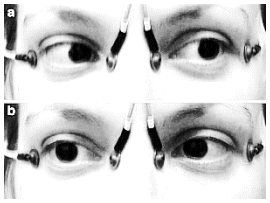
1. The patient is seated in the testing room
2. A skin-electrode is taped to the center of the forehead and at the corner of the patient's eyes with some paste, after cleaning with an exfoliating gel



Skin-Electrode

EOG Testing (35 minutes)

1. The patient must place their chin on the chinrest and look into a bowl during the test with their head straight
2. Every 50 seconds, the patient must move their eyes left/right to follow two switching flashing lights (with a 'beep' sound) for 10 seconds
    a. 2 practice tests are done with a light on in the bowl
    b. 16 eye movements are done in the dark for the first half of the test
    c. 16 eye movements are done with the light on for the last half of the test
3. When completed, the paste is cleaned and the patient can continue with next their appointments or leave



Left/Right eye-movements



Testing bowl

- ❖ The eye-movements are important for this test.
- ❖ The head must be kept straight and only eyes should be moving