

Video EEG (VEEG), adults

Purpose of the video EEG test

The video EEG (VEEG) test is used to study fits. The test consists of EEG (electroencephalography) recording combined with video recording, and the purpose is to:

- diagnose seizure symptoms
- evaluate how often you have fits
- examine in detail the type of fits (especially where the discharges originate and how they spread)
- evaluate if epilepsy surgery could help

Video EEG is a special test, and it is used especially if other tests have not provided enough information about your seizure condition. The test registers fits under controlled testing conditions.

How to prepare yourself for the test

Each one who is being tested is prepared individually for the test. A technician will call you on phone about one week before the scheduled test and ask you some questions about your health. At the same time, you can ask the technician things about the test that you have wondered about.

If you take hormones, asthma medicines or insulin, please take these medicines with you to the hospital. Take enough of these medicines to last for one week. The hospital will provide you with all other medicines that you need during the test week.

Your epilepsy medication may be reduced before the test. If this is done, it is to provoke fits during the test week. The doctor (neurologist) in charge will give you the instructions for reducing or changing medication, if needed. Medication is reduced usually for the duration of the weekend before the test. This is done in the neurology ward. If this is the case, the neurologist will give you all instructions you need on when to come to the hospital ward. Because of the risk for fits, **you are not allowed to leave the ward during the weekend.**

If you don't get any other instructions, don't change your medication. Just take your medicines as usual, also in the morning before coming to the hospital for the test.

You may take with you something to help to pass the time when you are in the ward – for example, something to read, a knitting or a laptop. You may need to stay awake for some time

during the study week, because this helps to get fits registered. It will help you to keep awake if you take something to do along with you to the ward. You may use your own network connection but are also free to use the guest network of the hospital.

Before the test begins it is important that your hair is clean and dry. After washing your hair, you are not allowed to use hair spray, hair gel or any other hair styling products. If you work in the field of welding, please wash your hair extra well. The reason for this is that metal dust in your hair could disturb the study and the result would not come out as it should.

How the study is done

The video EEG test will take 2–5 days. Usually, the total time needed for the test will unfold while the test is ongoing, and the time needed cannot be determined beforehand. If your epilepsy medication is reduced during the test, you may be asked to stay in the hospital ward for the weekend before the test and also a couple of days after the test.

Leads for registration of the EEG will be attached to your head with a water-soluble adhesive. The leads are easily removed after the test with water. The leads are plugged into a device in a bag that you will carry with you all the time the test takes.

In the test, the electrical activity of your brain (EEG or electroencephalography) and of your heart (ECG or electrocardiography) is recorded. A video recording is done at the same time. A technician in a control room next door supervises the test. If you get fits or symptoms of seizures during the test, the technician will perform some tests to check your level of consciousness. After the test is over, a doctor will analyse the fits you had during the test with the help of the EEG and the video recording.

A plastic cannula is put into a vein of your hand or arm. This is a safety measure in case you need medication to stop a fit. The study may feel mentally stressful and cause fatigue because of the need to stay awake and because of any fits that may occur. Headache is also possible for the same reasons. The leads and the adhesive may cause itching to some people. If needed, you will get medicines to reduce ache and itching.

The purpose of the test is to register symptoms that are typical for you. Since the study circumstances are artificial and your medication may be reduced, you may experience fits that are not typical to you during the test. Also, because of the fits, there is a risk that you might hurt yourself. However, your condition and you yourself are being monitored all the time and if there is a fit, the technicians are there to help you as quickly as possible.

Examination room

You will be spending your time during testing in a room equipped with a TV set, books and separate toilet facilities. You are not allowed leave the room during the test, but you can move around in the room and function as you would normally. The leads will not restrict your movements.

Visitors are welcome between midday and 7 PM (12:00–19:00).

The hospital provides you with the clothes you will be wearing during the test. Smoking during the test is not allowed. If needed, you may take nicotine substitution products provided by the ward. You are free to use a mobile phone.

After the study

If your medication has been reduced for the time of the study, you might be directed back to the neurology ward after the study has been completed. When you are in the ward, your medication can then be adjusted properly to your home dosage.

If you don't need observation in the ward after the study, you must have someone accompany you home from the hospital after the test is over. Also, you should not be alone for two days following the study.

After the study, it is advisable for you to sleep as well as you can for a few nights and to avoid all extra strain and stress for a few days.

You will hear the results of the study and what changes to your treatment may be needed from your treating neurologist.