

Video EEG (VEEG), adults

Purpose of the video EEG test

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

- diagnose different types of seizures
- evaluate the number of seizures
- examine the type of seizure in detail (to localise the discharges and evaluate their spread)
- evaluate whether you could be a candidate for epilepsy surgery

Video EEG is a specialised test, which is used when other tests have failed to provide sufficient information about your seizure disorder. The test registers seizures under controlled testing conditions.

How to prepare yourself for the test

Everyone is prepared individually for the test. A technician will call you about one week before the scheduled test and ask you some questions about your health. At the same time, please feel free to ask any questions you may have about the test.

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

Your epilepsy medication may be reduced before the test, in order to provoke seizures during the test week. The doctor (neurologist) in charge will give you instructions for reducing or changing medication, if needed. Your medication is usually reduced under controlled conditions on the neurology ward the weekend before the test is performed.

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 seizures **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 that will help you to pass the time when you are on 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 register seizures. It will help you to stay awake if you have something to do on the ward. You may use your own network connection but are also free to use the hospital guest network.

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 adversely affect the result.

How the study is done

The video EEG test will take 2–5 days. The exact timing cannot be determined beforehand, but will unfold during the course of the test. If your epilepsy medication is reduced during the test, you may be asked to stay in the hospital ward not just the weekend before the test but also a couple of days after the test.

EEG leads 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 at all times during the test.

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 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 seizures you had during the test with the help of the EEG and the video recording.

A plastic cannula is put into a vein on your hand or arm. This is a safety measure in case you need medication to stop a seizure. The study may feel mentally stressful and cause tiredness because of the need to stay awake and because of any seizures 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 circumstances of the study are artificial and your medication may need to be reduced, you may experience seizures that are not typical to you. Also, because of the seizures there is a risk that you might hurt yourself. However, you are being monitored all the time and if there is a seizure, 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 to 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 on the ward, your medication can then be adjusted properly to your home dosage.

If you don't need observation on 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 whatever changes to your treatment may be needed, from your treating neurologist.