

Polysomnography home recording and multiple sleep latency test

Purpose of the Examinations

The purpose of the polysomnography (PSG) is to study disturbances of sleep structure, special sleep disorders (parasomnias), possible apneas, partial upper airway obstruction, and periodic leg movements during sleep.

The purpose of the multiple sleep latency test (MSLT) is to define the time it takes for you to fall asleep and to assess the structure of your sleep. The multiple sleep latency test is performed on the day immediately after the polysomnography.

Preparing for the Examinations

For two weeks before the examinations

- You should try to sleep as regularly as possible. **Please keep track of your sleeping in the attached sleep diary for two weeks** before the examination and hand in the diary when arriving to the examination.
- If you are on medication, you can take it normally before the examination. You can also eat normally. You should avoid consuming large amounts of alcohol. You should not drink any alcohol on the day before the examination.
- You should avoid consuming large amounts of coffee one week before the examinations.

On the examination day (Day 1)

- You should have clean and dry hair when coming to the examination. You should not apply hair spray, gel, or any other styling products after washing your hair. If your work includes welding, wash your hair especially carefully. Accumulated metallic dust in your hair can cause several technical disturbances during the examination.
- After the wires have been attached, you cannot pull any clothing over your head. It is therefore recommended to wear, for example, a T-shirt you can sleep in in advance. Any other clothing should be openable from the front, so that they are easy to take off and put on during the examination. If necessary, you can borrow a long-sleeved hospital shirt that can be opened from the front, from the examination unit. It is recommended to wear short underpants because of the wires attached to your legs. You can wear a loose hat, cap or a scarf on your head if you wish to cover the wires attached to your head.

Polysomnography

Attaching the wires takes about two hours. You can go home with the equipment after this. The examination lasts overnight from the equipment installation to the next morning. You will be handed a questionnaire about your sleeping and tiredness at the beginning of the examination.

You can move relatively freely during the examination. The examination is painless and it does not remarkably affect your normal sleep. You can turn and choose your sleeping position normally during the examination night. The electrical activity of your brain, your eye movements, your muscle tension, your heart rate, your position and movement, and your blood oxygen saturation are recorded during the examination.

Measurement wires are attached to your scalp with a water-soluble paste. Some of the wires are attached to your skin with tape. The wires are attached to the portable recording device. The device is carried in a backpack or a purse throughout the examination. The device will not really affect your daily life, but you should not exercise or take part in sports that cause sweating. You will not be allowed to take a shower or visit a sauna, either.

It is recommended to store your mobile phone more than three metres away from your bed during the examination night. Other devices do not disturb the recording.

Preparing on the following morning (Day 2)

- You should get up by 6:30 am on the morning after the polysomnography. It is recommended to have breakfast before coming to the multiple sleep latency test. You should not have more than one small cup of coffee.
- Please wear comfortable clothing that you feel you can sleep in. You can bring along something to read, or other pastime, for the breaks between the recordings.
- Please come to the clinical neurophysiology unit by 7:50 am for the multiple sleep latency test.

Multiple Sleep Latency Test

Almost all the same measurement wires are used in the sleep latency test, so no wires are detached at this point. You will rest on a bed in a dark room, trying to fall asleep, in the examination.

The examination consists of four separate recordings, which begin at 8 am, 10 am, 12 noon and 2 pm, respectively. Please prepare for a possible fifth recording at 4 pm.

You will be served lunch during the examination day.

After the Examinations

The examination usually ends by 3:30 pm. If a fifth recording is necessary, the examination will end by 5 pm. In total, the examinations last for over 24 hours. The measurement wires are detached by moisturising them with water. Possible residue from the paste will be washed away when you next wash your hair.

A clinical neurophysiologist will analyse the examination and write a report. The report is directed to the clinic that ordered the examination. They will inform you of the examination results and any possible follow-ups.