

## Polysomnography 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. Please sleep as regularly as possible. If you work in shifts, try to arrange a day shift for the week before the examination, so that your sleep pattern is as regular as possible when the examination begins.
- 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

- 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.
- **Please bring along any necessary medication.** You can also bring along something to read, or other pastimes, to pass the time, if you want to.

#### Dressing up for the examinations:

- Polysomnography: Please bring along a **T-shirt and short underpants** to wear during the recording night. If necessary, you can wear clothing provided by the hospital during the examination.

- **Multiple Sleep Latency Test:** Please wear comfortable clothing you feel you can sleep in. It is recommended to wear a shirt that can be opened from the front. The measurement sensors attached to your scalp in the evening are not detached between the examinations. Because of this, you cannot wear clothing that needs to be pulled over your head.

## **Examination Process**

### **Polysomnography**

The examination is painless and it will not affect your normal sleep remarkably. All the measurement sensors are attached on the surface of your skin or on top of your clothes. The attachment takes about an hour. After this, the recording device is programmed for the examination night. You will be served an evening snack before the examination. You will be handed a questionnaire about your sleep and tiredness.

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, your blood oxygen saturation, and if necessary, the carbon dioxide concentration are recorded in the examination. In addition, your sleeping is recorded on video.

You will be served breakfast the following morning. You should not have more than one small cup of coffee on the morning of the examination day. The multiple sleep latency test begins after breakfast. Almost all the same measurement wires are used in the sleep latency test, so they are not detached at this point.

### **Multiple Sleep Latency Test**

You will rest on a bed in a dark room, trying to fall asleep, in the examination. The examination is divided into four recordings that take place between two hours, at 8 am, 10 am, 12 noon, and 2 pm. Please prepare for a possible fifth recording at 4 pm.

Between recordings, the wires will be detached from the recording device and you can walk around the waiting lobby of the unit. You will be served lunch during the examination day.

### **After the Examination**

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 almost 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.