

## Respiratory Physiology and Sleep Department

# Multiple Sleep Latency Test (MSLT)

The multiple sleep latency test (MSLT), is performed to assess excessive daytime sleepiness by measuring how quickly you fall asleep in a quiet environment during the day. Also known as a daytime nap study, the MSLT is the standard tool used to diagnose sleep conditions such as narcolepsy and idiopathic hypersomnia.

The MSLT is a full-day test that consists of a maximum of five scheduled naps separated by two-hour breaks. During each nap trial, you will lie quietly in bed and try to go to sleep. Once the lights go off, the test will measure how long it takes for you to fall asleep. The test will end after 20 minutes if you have not fallen asleep. The maximum time period a nap test would last is 35 minutes.

Each nap will be taken in a dark and quiet sleep environment that is intended for your comfort and to isolate any external factors that may affect your ability to fall asleep. Any electrical devices (e.g. mobile phones) will be required to be turned off during the nap period. A series of sensors will measure whether you are asleep or awake and the stage of your sleep.

Excessive daytime sleepiness happens when you are sleepy or fall asleep when you should be awake and alert. The sleep physician will recommend an MSLT if they suspect you have excessive daytime sleepiness related to a neurological sleep condition.



## Patient Information

### **Before the Test**

A variety of factors can affect the results of your MSLT. These include:

- Anxiety
- Tension
- Depression
- Age
- Caffeine
- Drugs and medications
- Amount of sleep before the study
- Smoking

For this reason, the sleep physician may recommend the following before your MSLT:

1. Keep a sleep diary for two or four weeks. This will allow the doctor to see your sleep-wake patterns. This may help the physician find other factors that may be causing daytime sleepiness. It will also help to make sure that you are allowing an adequate amount of time for sleep.

2. Discuss the use of stimulants including caffeine and smoking with your sleep physiologist before your MSLT. If you are on any medications, your sleep physiologist will help you to determine when you can use your medications before the MSLT. These substances can change the results of your MSLT.

3. The night before your MSLT you will have an overnight sleep study. For the MSLT to be correct, you will need to sleep at least six hours during the overnight sleep study. An overnight sleep study will be used to determine if another sleep disorder is causing your excessive daytime sleepiness.

4. You may be required to take a urine test before the MSLT. The urine test is to make sure that the MSLT will be accurate. There are a number of drugs that can affect the results of the sleep study. The results of the drug test will be kept private between you and the physician.

## Patient Information

### Testing Process

The MSLT will last most of the day. Over the course of the day, you will take up to five scheduled naps. Each of these nap trials is separated by a two-hour break. Depending on the results the test may be cut short, but you must be prepared to stay for the full five-nap version of the study.

You will take your first scheduled nap an hour-and-a-half to three hours after you wake up from the overnight sleep study. About an hour before your first nap trial, you will eat a light breakfast.

You will be required to wear the same sensors on your head, face and chin as your night time sleep study. The sensors show when you are asleep and awake, and transmit data used to determine when you are in REM sleep. Once you are connected, the physiologist will test the sensors by asking you to move your eyes, clench your teeth and turn your head. A low-light video camera will allow the physiologist to observe your MSLT from the room next door.

The nap trial begins when the lights are turned off. You will lay quietly on the bed and you will be asked to try and sleep. The MSLT will measure how long it takes you to fall asleep. It will also measure how long it takes for you to reach REM sleep.

The physiologist will wake you after you have slept for 15 minutes. If you are unable to fall asleep, the nap trial will end after 20 minutes. At this time, you will have around two-hour break. You will need to stay awake, and you are free to keep busy in whichever way you choose. The sensors will need to stay in place, but they will allow you to move about freely. You will be allowed to watch television, or if you want you can bring in books/magazines to read, or lap tops/tablets or anything else to do between naps.

This process will repeat up to five times in total. After your second (around mid-day) trial, you will be offered a light lunch. After your final nap trial, the sensors will be removed and you will be able to shower. You are free to leave when the final trial is complete.

## Patient Information

### Results

It will take six to eight weeks to get the results of your MSLT. A sleep physiologist will be the first to look over the MSLT data. The physiologist will chart when you fell asleep during each nap study. They will also look at your sleep stages and determine whether you entered REM sleep.

The physiologist will then discuss the results with a multi-disciplinary team including a sleep physician to interpret. The team will use this information to make their diagnosis and if appropriate suggest treatment.

You will be notified of your results either by letter or asked to come to clinic to discuss them further and if appropriate a treatment plan will be put in place and your General Practitioner (GP) will be informed.

**If you have any questions concerning this test, please contact the Respiratory Physiology and Sleep Department before your appointment**

**Contact Us: Complex Sleep Unit: Telephone 01788 66 38 88**

**Email: [GMBSleep@uhcw.nhs.uk](mailto:GMBSleep@uhcw.nhs.uk)**

**Open: .Monday to Friday 8.00am to 4.30pm**

Other leaflets you might find useful: **Polysomnography**. Please ask staff for the leaflet.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 67 34 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

To give feedback on this leaflet please email [feedback@uhcw.nhs.uk](mailto:feedback@uhcw.nhs.uk)

#### Document History

Department:	Respiratory
Contact:	26734
Updated:	February 2022
Review:	February 2025
Version:	1
Reference:	HIC/LFT/2657/22