

Patient information factsheet

Polysomnography (PSG) and multiple sleep latency test (MSLT)

We have given you this factsheet because your doctor has referred you for a polysomnography (PSG) and multiple sleep latency test (MSLT). It explains what a PSG and MSLT are, what the tests involve and how to prepare for them. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What is a polysomnography (PSG)?

A PSG is a non-invasive test that monitors and records your bodily functions while you sleep, such as your:

- brain activity
- eye movements and activity
- body movements, activity and position
- snoring
- breathing flow and effort
- heart rate and rhythm
- blood oxygen levels and pulse rate

You will need to stay in hospital overnight for this test.

What is a multiple sleep latency test (MSLT)?

An MSLT is an all-day non-invasive test that assesses for excessive levels of daytime sleepiness by measuring your tendency to fall asleep.

The test is usually performed the day after your PSG and consists of a series of scheduled nap times.

Why do I need to have these tests?

Your doctor may have referred you for these tests if a previous sleep study (for example, an overnight oximetry or respiratory polygraphy study) did not provide them with enough information to form or rule out a diagnosis.

The results of both tests will help our specialists to diagnose any sleep disorders and recommend the best treatment option for you to your doctor.

How should I prepare for the tests?

We will send you an appointment letter in the post. Contact us as soon as you receive your appointment letter if you are unable to attend the dates arranged for **both** the overnight PSG and MSLT.

Patient information factsheet

Before coming into hospital for your tests, you must:

- remove any nail varnish or false nails (as these can affect the data being recorded)
- remove any make-up
- wash and dry your hair and body (this will ensure the sensors we use during the test will stick to your skin well)

It is important that you **do not**:

- drink any alcohol on the day of your PSG or the following day (day of MSLT)
- drink any caffeinated drinks from 2pm on the day of your PSG or on the day of your MSLT
- have any nicotine on the day of your MSLT

Medication

We may ask some people to stop taking some of their usual medications (for example, alerting or sedating medications) two weeks before their PSG and MSLT. If this is the case for you, we will discuss this with you before your tests.

Items to bring to your appointment

Please bring the following items with you to your appointment:

- two-piece pyjamas and socks (you cannot sleep without clothing or in your underwear as the sleep equipment we use needs to be positioned over nightwear)
- a front-fastening dressing gown, cardigan, or hoody with a full zip
- snacks and drinks that **do not** contain caffeine (we will provide a light breakfast and lunch during your stay)
- something to keep you occupied (for example, a book or magazine – please avoid screen-based entertainment before going to sleep as the blue light from screens can affect how well you sleep)
- toiletries (you will have an ensuite bathroom and access to a shower)
- clothes to change into after your test
- a mobile phone and charger
- your usual medications (in their original packaging)
- any medical device you will need during your stay (for example, a CPAP machine)

If we have arranged for you to have an actigraphy study two weeks before your PSG and MSLT, please bring the Actiwatch and your completed sleep diary with you to your PSG appointment. For more information about having an actigraphy study, please read the separate factsheet we have given you.

Who will perform the tests?

The tests will be performed by a sleep physiologist (sleep specialist).

Where will the tests be performed?

The tests will be performed in the adult sleep service department which is located on level 2 (Wilverley Clinics) at Lymington New Forest Hospital. You will be given a private bedroom with an ensuite bathroom.

What will happen before the tests?

When you arrive for your tests, we will greet you and ask you to fill out some paperwork relating to the tests. If you need any help completing this, please let us know. We will then explain the tests to you in detail and answer any questions you may have. If you are happy to go ahead with the tests, we will then ask you to sign a consent form.

Patient information factsheet

We will then take you to the room where you will stay overnight. We will give you some time to get settled and changed into your nightwear.

What will happen during the tests?

Day one - PSG

Once you are ready for bed, we will:

- measure your head and draw small marks on your scalp with a skin-safe soft marking crayon

We will then place:

- small sensors (electrodes) on your head, face, legs and chest (we may attach some of these sensors with a water-based paste and gauze that can be easily removed with water)
- a small sensor close to your neck
- a probe (a soft clip) on your finger
- a stretchy band around your chest and another around your tummy
- two small sensors at the entrance of your nostrils

These sensors will record how your brain and body functions while you sleep. Once we have placed all the sensors, we will then connect them to a small box attached to the stretchy band around your tummy. This box will connect wirelessly to our computer, so you will be free to move and walk around before the test begins. It will take us approximately one hour to set up all the equipment needed for the test.

We will then perform a few pre-test checks to make sure the equipment is all working correctly. We will let you know when we are about to start the test. When we are ready, we will turn the night vision camera on (this camera will allow us to monitor you while you sleep).

A member of our sleep physiology team will monitor you from a separate room for the duration of your test so you will never be on your own. If you need anything or have any concerns, please let us know.

The next day – MSLT

We will wake you up the next morning around 7am. We will remove any of the sensors that are not needed for the MSLT. We will then offer you some breakfast.

After you have had breakfast, we will meet with you to explain the MSLT in detail and answer any questions you may have.

We will give you four to five nap opportunities throughout the day (two hours apart). You will need to stay in your room throughout the day. It is important that you keep yourself occupied to avoid sleeping between the set nap times. We have television and free hospital Wi-Fi which you are welcome to use during your stay.

We will inform you 15 minutes before each nap time is due to start. We will ask you to stop taking part in any engaging activity (for example, watching television) in preparation for napping.

Before each nap, we will perform a few pre-test checks to make sure all the equipment is working correctly. We will then ask you to lie in bed and try to sleep. We will wake you at the end of each nap time.

Patient information factsheet

We will offer you a variety of options for your lunch. We try to cater for a range of dietary needs, but you are welcome to bring in food or snacks from home (which do not contain caffeine) if you prefer.

What will happen after the MSLT?

After the MSLT, we will gently remove all of the equipment and sensors from your body. Once removed, you will be able to go home (you are welcome to have a shower before you go home if you wish).

Are there any risks or side effects?

There are no known risks or side effects associated with these tests. The tests should not cause you any discomfort, but some people may find wearing some of the sensors slightly uncomfortable.

When will I receive my results?

We will analyse the data from your tests and the video recording. Please be aware that this can take some time. Once we have analysed the data, we will upload our findings to your electronic patient record. Depending on your results, we will either send you a letter inviting you for a review appointment or a clinic letter explaining your results and what happens next. We will also send your results to the doctor who referred you for the tests.

If we think you need any further tests or treatments, we will arrange these for you.

Contact us

If you have any questions or concerns about the tests, please contact us.

Adult sleep service team

Telephone: **023 8120 1947** (Monday to Friday, 8.30am to 4.30pm)

If we are unable to answer your call, please leave a message with your name, hospital number, NHS number or date of birth, and we will call you back as soon as we can.

If you would like to cancel or reschedule your appointment, please contact our sleep admin team on **023 8120 6225** (Monday to Friday, 8am to 4pm).

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**