

Multiple Sleep Latency Test (MSLT)

Information and advice for patients

Neurophysiology

What is Multiple Sleep Latency Test (MSLT)?

An MSLT is used to investigate your sleep patterns. The patterns are monitored by an EEG (or electroencephalogram) and a few other measures such as eye movements and muscle tension. An EEG is a simple test that records the electrical activity of your brain. The test takes most of the day, but you are not admitted to hospital. You will be given 4-5 opportunities to nap during the day and the MSLT analyses how quickly you sleep and what your sleep is like. Please plan for the test to take all day.

How does an EEG work?

An EEG is done by attaching small discs to the scalp and recording the brain waves onto a computer.

What are the benefits of these tests?

MSLT recordings allow us to analyse the changes in your brain during sleep. This may help your doctor find out the cause of your symptoms and decided what treatment would work best for you.

What are the risks of these tests?

The MSLT records ongoing brain activity that you produce naturally all the time and there is very little risk. As the electrodes must be glued onto your scalp, this may irritate the skin where they are applied and be sore when they are removed.

What are the risks of not having the tests?

If you choose not to have the MSLT, this may delay your doctor finding out what is causing your symptoms and starting treatment.

Are there any alternative tests? There is usually no alternative to this test that will give your doctor the information needed.

Additional tests prior to the MSLT

- The week before the MSLT. An appointment will be made for Actigraphy either in Neurophysiology or the Respiratory department. Actigraphy is a non-invasive method of monitoring rest or activity cycle, using a small, wristwatch-sized device called an actigraph. This monitors how much sleep you have on average during the week.
- On the day before the MSLT, an appointment will be made in Neurophysiology for you to have an at home polysomnography (PSG) test. This involves monitoring your sleep by an EEG overnight, to ensure you have had a good night's sleep before the MSLT. To do this, we will measure your head and then small discs will be attached to your scalp with a special glue. There are also discs placed under your chin and above and below your eyes. All the discs are attached to a small recording box by wires which are then bundled together and carried in a bag over the shoulder. You will then be able to go home with the discs attached.

Preparing for the MSLT

- On the morning of the MSLT, please wake up no later than 6:30 am.
- Wear comfortable clothes that won't stop you from sleeping.
- Ensure your hair is clean and free from oils, gels, or hairspray.
- Continue to take prescribed medications, unless otherwise indicated by your referring doctor.
- Complete the sleep diary enclosed with your appointment letter for 1 week before the appointment. You need to complete the section about the previous night's sleep after waking up in the mornings. Before you go to bed at night, make sure you also fill out the section about the daytime. Please bring the sleep diary to your appointment as this is very important for the clinicians to learn about your sleep patterns.
- Do not drink caffeinated drinks on the evening before the MSLT or on the day of the test.
- It is important to get a good night sleep/average night sleep on the night before the MSLT. We recommend that the patient should have at least six hours sleep to get an accurate MSLT result.
- Eat a light breakfast before arriving at the hospital.
- Please arrive promptly for your MSLT appointment in the Neurophysiology department.

Unable to keep the appointment

If you are unable to keep your appointment, please contact us on 0121 507 4319 so that alternative arrangements can be made, and the appointment can be given to another patient waiting for the test.

Consent

Before the test we will ask you if you have read and understood this information and whether you consent to go ahead with it. We will also answer any questions you have.

During the MSLT

The MSLT will be performed by a clinical physiologist. This is what happens:

1. On arrival the PSG study will be uploaded and the discs on your scalp will be checked to ensure they are still connected for the MSLT.
2. You will lie on a bed and be given 4 or 5 nap opportunities during the day, and we will record an MSLT each time. Each nap may be between 20 and 30 minutes.
3. Naps and MSLTs are at set times every 90-120 minutes, approximately 8:30, 10:30, 12:30, 14:30 and if needed 16:30.
4. In between nap times, you will not be allowed to sleep as this affects your test results and so you should bring books or music to fill the time. You will be allowed into the hospital foyer or can remain in the recording room. If you leave the room, you need to return promptly 15 minutes before the time of your next nap.
5. You should bring a light lunch which will be eaten after your third nap.
6. After the final nap the electrodes will be removed with a solution to dissolve the glue. There may be a small amount left that will come out after you have washed and conditioned your hair a few times.

What do I feel during the tests?

The test is completely painless and has no significant side effects.

Can I smoke?

Sandwell and West Birmingham NHS Trust ('the Trust') is a smoke-free organisation. This policy prohibits use of all tobacco products on or in any Trust property from 5 July 2019. As a result, smoking on Trust premises, including buildings, grounds and car parks is strictly prohibited. However, e-cigarettes/vaping will be permitted for use by patients and visitors.

If smoking is done outside the hospital premises, this should be no later than 30 minutes before the start of the next nap as smoking can affect the results of the MSLT.

Do I need to bring anything with me to the appointment?

Yes. Please bring:

1. The completed sleep diary.
2. Food for lunch and a drink or money to purchase from vending machines.
3. Books, magazines, music, DVD, or anything else to pass the time between naps.

After the test

After the test you will be able to go back to your normal activities.

When will I get the results?

You won't get the results straight after the test as they need to be analysed by the consultant. A full report will be sent to the doctor who referred you for the test after about 3 weeks and they will contact you to discuss the results.

Contact details

You will be able to ask any questions or tell us any concerns before the test is carried out but if you would like to contact us before your appointment please call:

Neurophysiology

0121 507 4319

Monday –Friday, 9am to 5pm

Further information

For more information about our hospitals and services please see our website.

Sandwell and West Birmingham Hospitals NHS Trust www.swbh.nhs.uk

Sources used in this leaflet

Littner, M. R., Kushida, C., Wise, et al (2005). Practice parameters for clinical use of the multiple sleep latency test and the maintenance of wakefulness test. *Sleep*, 28(1), 113-121.

Krahn, L. E., Arand, D. L., Avidan, et al (2021). Recommended protocols for the multiple sleep latency test and maintenance of wakefulness test in adults: guidance from the American Academy of Sleep Medicine. *Journal of Clinical Sleep Medicine*, 17(12), 2489-2498.

American Academy of Sleep Medicine (2020) Multiple Sleep Latency Test. Available at: <https://sleepeducation.org/patients/multiple-sleep-latency-test/> (Accessed 13 June 2024).

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ML7580
Issue Date: July 2024
Review Date: July 2027