

MULTIPLE SLEEP LATENCY TEST (MSLT)

Excessive daytime sleepiness occurs when you are sleepy when you should be awake and alert. The board certified sleep specialist at the Sleep Disorders Center of Santa Maria will recommend an MSLT if he or she suspects you have excessive daytime sleepiness related to narcolepsy or another type of hypersomnia. Narcolepsy is a sleep disorder which occurs in about one in 2000 people.

The multiple sleep latency test (MSLT) is the primary test done to make the diagnosis of narcolepsy. The MSLT tests for excessive daytime sleepiness by measuring how quickly you fall asleep in a quiet environment during the day. The MSLT is the standard test used to diagnose narcolepsy idiopathic hypersomnia.

The MSLT is a full-day test that consists of four or 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. You will be awakened after sleeping 15 minutes. If you do not fall asleep within 20 minutes, the nap trial will end.

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. A series of sensors will measure whether you are asleep. The sensors also determine your sleep stage.

Multiple Sleep Latency Test (MSLT) - Preparing for the MSLT

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

- Anxiety
- Tension
- Depression
- Age
- Caffeine
- Drugs and medications
- Amount of sleep prior to the study

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Because these factors may affect the results of your test, we recommend the following before your MSLT:

1. Keep a sleep diary for two weeks. This will allow the doctor to see your sleep-wake patterns. This may help the physician identify other factors that may be causing daytime sleepiness. It will also help to ensure that you are allowing an adequate amount of time for sleep. (you can download a sleep diary form or you will be given this by the staff at the Sleep Disorders Center of Santa Maria).
2. You will need to discuss the use of stimulants including caffeine with your sleep physician prior to your MSLT as these substances can alter the results of your MSLT. If you are on any medications, your sleep physician will help you to determine when you can use your medications before the MSLT.
3. The night before your MSLT you will have an overnight sleep study. For the MSLT to be accurate, you will need to sleep at least six hours during the overnight sleep study. An overnight sleep study is also necessary to determine if another sleep disorder such as obstructive sleep apnea is causing your excessive daytime sleepiness.
4. In rare cases, you may be required to take a drug test the morning of the MSLT. The drug test is to ensure 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.

MSLT Testing Process

The MSLT will last for the entire day. Over the course of the day, you will take four or five scheduled naps. Each of these nap trials is separated by a two-hour break.

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

A sleep technologist will gently place sensors on your head, face and chin. These sensors are connected to a computer. Each sensor is long enough so you can move around and turn over in bed. The sensors show when you are asleep and awake. The sensors also transmit data used to determine when you are in REM sleep. Once you are connected, the sleep technologist 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 observation of your MSLT from a nearby room.

The nap trial begins when the lights are turned off. You will lie quietly in bed and try to go to 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 (dream sleep).

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The technologist will awaken 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 an approximately two-hour break until your next nap opportunity. You will need to stay awake during this however other than not sleeping you are free to keep busy in whichever way you choose.

This process will repeat four more times. After your second (noon) trial, you will have a light lunch. After your final nap trial, you will test the sensors again and they will be removed.

MSLT Results

It will take about two weeks to get the results of your MSLT. During this time, the results will be reviewed by a registered polysomnographic technologist and by a board certified sleep physician.

Review of the data will determine exactly how long it took you to fall asleep during each nap study. The sleep technologist will also look at your sleep stages and determine whether or not you entered REM sleep. In patients with narcolepsy there will often two or more REM periods during the MSLT. People with idiopathic hypersomnia fall asleep easily and quickly during the MSLT however they generally do not reach REM sleep during the nap trial.

The sleep technologist and the board-certified sleep medicine physician will then review and discuss the results. The doctor will use this information to make his or her diagnosis.

On your follow up visit after the MSLT the sleep doctor will discuss your results, your diagnosis and you will be given options and recommendation for a treatment plan. If your primary care physician or another doctor ordered the MSLT, the board certified sleep medicine physician will send them the results.