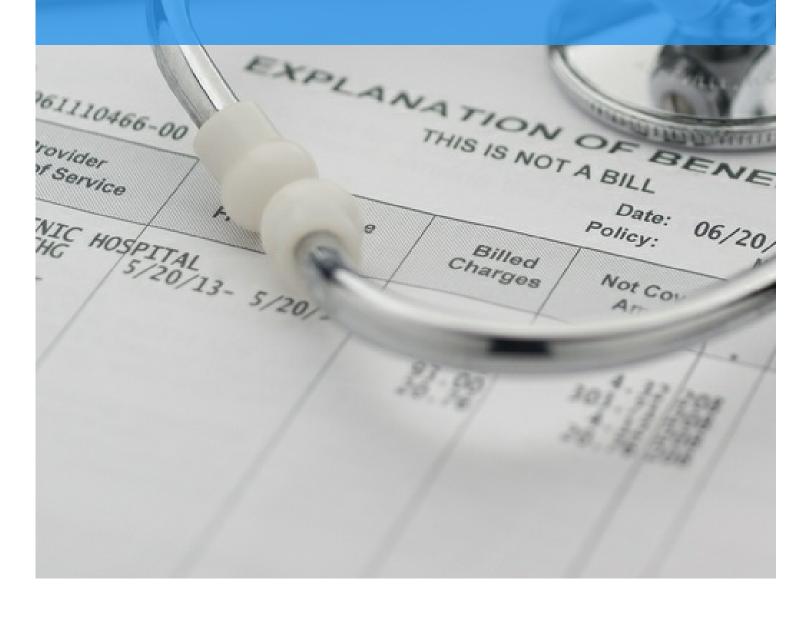


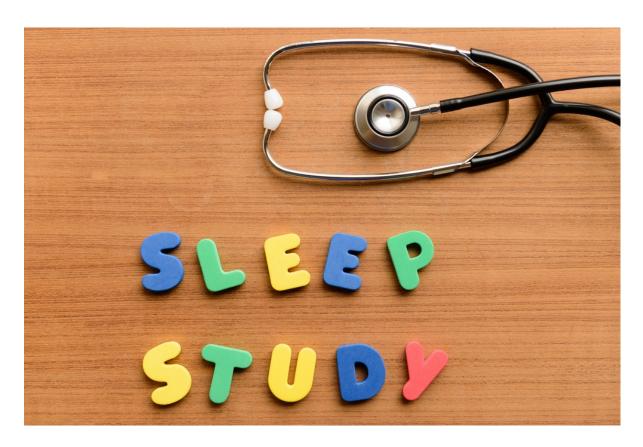
We address the common questions about various sleep studies, their purpose, and YES our fees!



### Table of Contents

- 1. What is an Overnight Sleep Study (Polysomnogram)?
- 2. What is a CPAP Titration Sleep Study?
- 3. What is a Home Sleep Study/Test (HST)? (Reasons and Indications)
- 4. What is a Multiple Sleep Latency Test (MSLT)?
- 5. What is the Maintenance of Wakefulness Test?
- 6. How much does a sleep study cost? (Prices and Rates)
- 7. Does Insurance Pay for Sleep Studies? (Coverage, Costs, and Rates)
- 8. Sleep Study Questions?

# What is an Overnight Sleep Study (Polysomnogram)?



If your doctor suspects you have a sleep disorder like sleep apnea, sleep related movements, or narcolepsy, he or she may refer you to a sleep center for an overnight sleep study, or polysomnogram. The purpose of this sleep study is to monitor you while you sleep, to get a more complete picture of what's happening in your brain and to your body.

The goal of a sleep study is to determine whether you have a sleep disorder, and if so, to diagnose which one, so you can treat it and finally get a restful and restorative sleep.

What is an overnight sleep study test?



An overnight sleep study test, or polysomnogram, is also called a *nocturnal* polysomnogram (NPSG). Nocturnal means it happens at night. Polysomnogram means it measures many different body functions while you're asleep, including:

- heart rate
- brain activity
- oxygen levels
- eye movements
- airflow
- respiratory effort
- body movement

The purpose of a nocturnal sleep study is to use the above data to diagnose and treat sleep and arousal disorders.

At your overnight sleep study, trained sleep technologists lead you through the process and monitor the equipment that records all of your sleep data into a digital diagnostic system. These technicians (sometimes called "sleep techs") have specialized credentials: they are Registered Polysomnographic Technologists (RPSGT).

Sleep technologists, like your referring physician, are sleep medicine professionals who work directly with your doctor to make sure you're properly and accurately diagnosed and treated. Their work with you begins with your sleep study and

sometimes continues after, with ongoing patient education and treatment. (For example, if you are diagnosed with sleep apnea, you may make continued visits to the sleep lab for CPAP fittings and follow-up visits.)

At your sleep study, you don't need to do a thing except sleep; the lab technicians record the data. By monitoring the real-time data coming in from your wires and sensors and from in-room video, they can see how your body behaves through all the stages of sleep.

A sleep study can reveal any abnormalities in your sleep patterns; for example, if you snore, experience apneas (cessation of breathing), have any involuntary movements (like leg motions or sleepwalking), or spend too little time in any of the stages of sleep.

#### What's involved with a sleep study

If all of this is new to you, you're probably wondering what to expect from a sleep study. Though sleep labs vary, your experience should be something like this:

- First, your physician will recommend that you visit a sleep clinic for a sleep study. Once the study is approved by your insurance as medically necessary, you'll get a referral to a sleep center (sometimes called a sleep clinic or sleep lab).
- When you call to make your sleep study appointment, the clinic will ask you questions about your sleep and any medications you're taking. They'll also advise you as to how to prepare for your sleep study. For example, you may be instructed to refrain from taking certain medications. You'll also be advised to not drink caffeine or take a nap on the day of your polysomnogram. Technicians will also ask that your hair be dry and that you not put any styling products in it, as these can affect the sensors.
- When you arrive for your sleep study, pack as if you're going to a hotel. Bring an overnight bag with



comfortable pajamas and something to wear in the morning. Bring whatever you need for your usual sleep ritual, such as as a book light and a book to read before bed. You can bring a pillow from home. You should also bring any medications you need to take. (Be sure to tell your sleep technicians about this medication in advance and again when you check in.)

- Overnight studies usually begin in the evening (between 5:30 PM and 9:30 PM) and end early in the morning (around 5:30 or 6:30 AM).
- After you check in for your study, you'll be given a chance to change into pajamas. Then you'll be brought to a private room to sleep. These rooms usually have a bed, a bedside table with a lamp, and oftentimes a TV.
- Your sleep technician will help use an adhesive to temporarily attach sensors
  and wires to your head and body at least twelve electrodes (flat metal discs),
  and probably more. All wires are long enough to allow you to move around in
  bed as you normally would. You'll also wear an elastic belt around your chest to
  measure breathing and a fingertip or earlobe clip to monitor heart rate and
  oxygen levels.
- Your sleep technician will also advise you as to how to use the bathroom in the night. A technician can help you to attach a portable device so your test is not interrupted by nature's call. Alternately, your technician may show you how to unplug from, and reattach to, a central box so you can get up when you need to.

- All of these devices record your bodily functions and input the data into a digital diagnostic system, where your sleep techs can monitor readings as you sleep.
- Once your tech has set you up, he or she will ask you to test the connections by making some movements (for example, closing your eyes or moving your arms and legs).
- After that, you'll relax in bed as you normally would, by reading or watching TV until you feel sleepy. When you're ready, you can shut off the lights and go to sleep as you normally would at home.
- From the moment you're hooked up to your equipment until the moment you're awakened in the morning, sleep technicians will monitor your vital signs and the various channels of data being transmitted to them. Techs collect and analyze this data, taking note of any irregularities as you pass through the stages of sleep (stages 1, 2, 3, and REM sleep).
  - A typical sleep study will have you hooked up to an electrocardiogram (EKG), an electro-encephalogram (EEG), an Electrooculography (EOG), and an Electromyography (EMG). These



monitor heart and brain activity, eye movement, and muscle activity.

 Other sensors will monitor your snore volume, your breathing, your body position (for example, if you sleep on your back or side), and your blood oxygen saturation. These sensors help to determine if your breathing is

- interrupted and if you're getting enough oxygen to your brain. They also help to associate any changes in your sleep with your body's position at the time.
- Sleep techs will also watch video of you as you sleep. This video is recorded to help check your body position against the recorded data. It's also useful for documenting any seizures or movements you make while asleep.
- During the night, it's possible the sleep tech may awaken you and ask you to sleep on your back or to otherwise change position. This request is usually for the purpose of gathering clearer data.
- If your sleep technologist sees you having instances of sleep apnea, he or she may come into your room and fit you with a CPAP facial mask. In this case, you will be asked to try and sleep with the CPAP therapy so the technologist can get a reading of how you respond to it.
- In the morning, a technician will come wake you up. At this time, you simply get dressed and go about your day.

Many people worry that they won't be able to fall asleep or stay asleep at an overnight sleep study. However, the rooms are designed to be restful and relaxing. Though your sleep may not be as good as usual, most patients sleep for at least part of the night, which is enough for the technologists to gather the information they need.

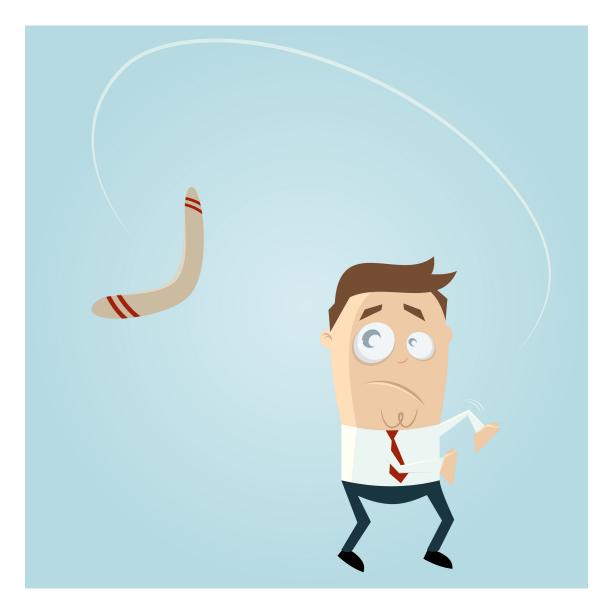
#### **Getting Your Sleep Study Results**

Your technologists will need to compile and review the collected information from your test. They then provide it to the sleep center's board-certified sleep specialist, who reviews it and makes a diagnosis based on the results of the study combined with your medical history.

If a different doctor (for example, your primary care physician) ordered the sleep study, he or she will be sent a copy of the results for review with you.

After an average of about two weeks, you'll be called to schedule a follow-up with your sleep medicine doctor. At this time, he or she will go over your results and diagnosis and determine a treatment plan.

# What is a CPAP Titration Sleep Study?



Sometimes a patient will participate in a sleep study to identify or confirm a diagnosis of sleep apnea.

Imagine their surprise, then, when they discover they need to go back to the sleep center and take part in yet another sleep study?

This doesn't always happen; some sleep studies identify sleep disorders other than

sleep apnea, and they usually only require one trip to the sleep lab for diagnosis.

For those who do have sleep apnea, they might undergo a same-night "split night study" to both diagnose and treat moderate to severe sleep apnea, which doesn't usually require a return trip to the lab. This is because they have more severe symptoms and have been "green lighted" by the sleep physician to start therapy right away.

However, someone who has mild to moderate sleep apnea may need to return for a test called a CPAP titration study.

#### What is a CPAP titration study?

As we discussed in our recent post on split night studies, part of the protocol for treating patients with CPAP involves trialing continuous positive airway pressure (CPAP) therapy. Their symptoms are severe enough to warrant an intervention, which is determined by protocols well established in the field of sleep medicine.

However, for those with mild to moderate sleep apnea, who do not qualify in real time for a split night study, they may still need therapy. The return to the lab is done so they can have a full night to trial CPAP therapy (or, in some cases, oral appliance therapy, which also requires titration). This is a protocol that is shaped not only by sleep medicine agencies, but by insurance payers.

The CPAP titration study is useful and thorough. It provides the sleep technologist with the opportunity to help these sleep patients find the most comfortable mask, to ensure a good mask fit, and to identify pressure and comfort settings unique to the patient.



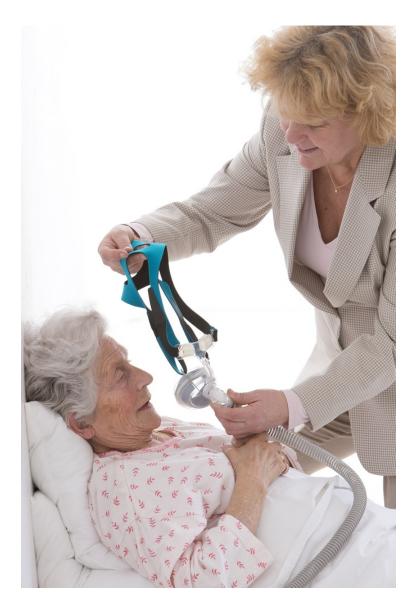
#### What to expect during a CPAP titration study

If you've already had one sleep study, then you already know what to expect in terms of the preparation required to launch your test. However, there's one key difference: you will start your test using your CPAP therapy from the moment it begins.

Your sleep technologist will be available to you throughout the night to ensure you are comfortable and that all of your sensors are connected and functional.

They will be remotely changing the pressure on your machine as you sleep until it reaches the level that prevents the pauses in breathing—the apneas—from happening.

The pressure will start



at a low level and will be very gradually increased in order to help you remain comfortable. If you experience discomfort, they can help you by adjusting other factors, like pressure relief or humidity, all from their station in the lab.

Remember, everyone is different in terms of how much pressure they need; you may need a lot more than your friend, or you may need far less than your coworker.

#### The importance of CPAP mask fit

One area of special focus for the sleep technologist during your visit will be the fit of your CPAP mask. If it leaks, it distorts the accuracy of the sleep test. Any breach in the seal of the mask will render it ineffective; it will be part of their job to help you achieve a proper, and comfortable, fit to avoid problems with mask leak.

Don't be surprised if they enter your room several times to make adjustments or to ask you how you are doing with the mask. This is a high-priority part of the test.

You will continue to use CPAP therapy throughout the night. The results of the data collection from this study will determine how your sleep apnea machine will be set so you can receive the most appropriate therapy for your needs when you actually take your therapeutic equipment home.



Once your study is complete, your sleep physician will review it to determine the proper prescription for your CPAP machine and mask. Once these are issued, you are ready to begin with CPAP therapy.

Want to learn more about what to expect in the days and weeks that follow the start of your therapy? Click here.

### What is a Home Sleep Study/Test (HST)? (Reasons and Indications)



Have you been a lifelong loud snorer? Do you wake up tired, unrested, irritable? Are your days spent fighting sleepiness at work, at home, and even while driving? If so, you may be considered among those with a high probability of suffering from Obstructive Sleep Apnea.

Also called "sleep apnea" or sometimes just "apnea," this is a condition in which your airways close off while you sleep. Not only does this literally choke off your air supply, it causes your body to panic, and to kick you out of deep sleep just to gasp a lungful of oxygen. Severe obstructive sleep apnea can occur up to thirty times an hour, lasting at least ten seconds each and every time.

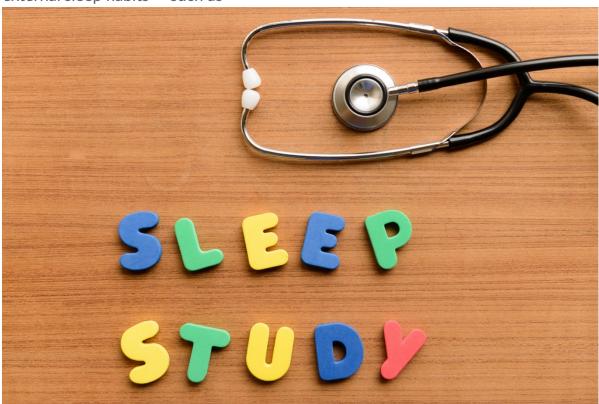
The most complete diagnosis of whether you have Obstructive Sleep Apnea is by participating in an overnight sleep study (polysomnogram) at an accredited sleep

center. But what if you have a medical, physical, or other issue that prevents you from going to a sleep center?

Fortunately, you can now perform your own sleep study at home, using a Home Sleep Test (HST) — which some studies show this test to be just about as accurate as a full overnight sleep study.

#### What is an Overnight Sleep Study?

An overnight sleep study is called a **polysomnogram**. This exam studies your *external* sleep habits — such as



the position in which you normally sleep, whether you are a mouth or nose or combination breather, snoring. body position, and any movements of your eyes and legs — as well as your body's *internal* sleep mechanisms, including brain activity (using an EEG or electroencephalogram), heartbeat (pulse/heart rate) and breathing (respiration) to include the oxygentaion of your blood.

A complete overnight sleep study will take place at an accredited sleep center or lab. There, a board-certified sleep medicine physician will have the equipment and environment all set up for a complete evaluation of your sleep. In addition to hooking you directly to their computers via sensors, bands, cameras, etc., an experienced technicians will ensure monitor your entire night's sleep, making

adjustments and issuing instructions as needed to record a complete record of your sleep statistics.

#### What is a Home Sleep Study?



A Home Sleep Study (also known as a Portable or Unattended Sleep Study) is a somewhat simplified polysomnogram that you do at home. If your doctor suspects that you may suffer from Obstructive Sleep Apnea, you will be instructed to order a home sleep study from an appropriate sleep diagnostic service company.

The HST device is about the size of a large cellular phone and has several attached wires and sensors to record the following:

- Airflow through the mouth and nose, using a thin tube that goes under the nose and another under the chin
- Breathing, with straps that circle the chest and abdomen
- Blood oxygen levels, utilizing a standard clip on the fingertip

You would attach your HST device before going to bed and use it for one to three consecutive nights, as directed. You would then return the device to the diagnostic service company for downloading, analyzing, and interpreting your results. The

information would be returned to a certified sleep physician, as well as your own doctor.

The HST does not gather data on brain activity (EEG electroencephalogram), heart electrical activity (EKG electrocardiogram), and it cannot test for what titration (air pressure) or mask style will best suit your individual needs.

If it turns out you are not suffering from obstructive sleep apnea, the home study test will not be able to test for or determine what other sleep disorder may be present. You would need to schedule the full overnight sleep study for a complete diagnosis.

#### Who is the Home Sleep Study for?

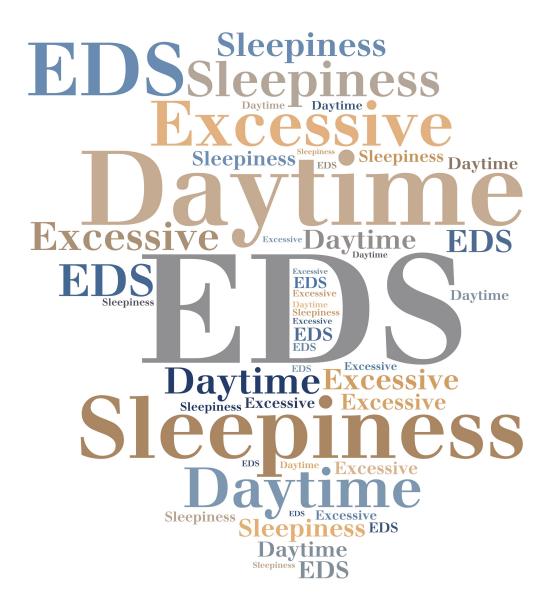
A home sleep study collects less data and does not have the benefit of an on-thespot technician to perform diagnostic tests. However, there are many people for whom a home study offers distinct benefits over the overnight version:

- Those with a high pre-test probablity of obstructive sleep apnea
- Those without an accredited sleep center within easy driving distance of their home, or cannot dedicate the time required for a full study.

Many insurance companies cover the cost of sleep studies, but may require first using a home version over a full overnight sleep study.

If you feel that you have obstructive sleep apnea and want to speak with a local representative in the Seattle/Kirkland, Washington area, call us today at 425-636-2400.

# What is a Multiple Sleep Latency Test (MSLT)?



You recently learned about the sleep disorder, narcolepsy, here at Sound Sleep Health (Narcolepsy: Signs, Symptoms, and Diagnosis). Critical to arriving at a diagnosis is the use of a specific kind of daytime sleep test known as the MSLT, or the multiple sleep latency test, to confirm a suspicion of narcolepsy, as well as to differentiate it from the presence of a similar condition, idiopathic hypersomnia.

#### How is narcolepsy diagnosed?

As with many other sleep disorder diagnoses, a diagnosis of narcolepsy occurs only after the following have been considered:

**Patient history.** Certain markers of narcolepsy, such as age and family history, are noted. Also, other preexisting or yet-unidentified health conditions which might mimic narcolepsy are also taken into consideration.

**Symptoms.** The four key symptoms of narcolepsy are discussed:

Excessive daytime sleepiness
 Cataplexy
 Hallucinations before or after sleep
 Sleep paralysis

**Sleep diary data**. Patients will be asked to record sleep patterns for a couple of weeks prior to any testing to give the physician insight into sleep hygiene, average sleep amounts, and other details which can help with testing conclusions.

**Testing.** The narcolepsy testing protocol usually includes the following:

- Overnight polysomnogram. This overnight sleep study captures important data about rapid-eye movement, sleep efficiency, and how quickly a patient falls asleep. It also measures for signs of other potential sleep disorders that could be held (at least partially) to account for the symptoms connected to narcolepsy, such as movement disorders of sleep or sleep breathing disorders like sleep apnea.
- Multiple Sleep Latency Test (MSLT). The MSLT is a daytime sleep test for narcolepsy which involves recording brainwave activity in patients during the day as they nap. This information is critical to differentiating a diagnosis between narcolepsy and idiopathic hypersomnia (more below).

The sleep study with MSLT usually occurs over the course of a night and into the

following day.

Testing for narcolepsy may require that patients on certain kinds of medications cease taking them prior to the MSLT to ensure results of the tests aren't distorted by the side effects of these drugs.

#### What is an MSLT?



The patient undergoing an MSLT is asked to spend the day in the sleep center laboratory.

Meals during the MSLT include a light breakfast an hour before the first nap trial, and lunch provided immediately after the second nap.

The patient is asked to take as many as 5 naps at regular 2-hour intervals over the course of the day.

They will wear some of the same sensors they wore during the overnight test, such as the ones already applied to the head, face, and chin, but others are no longer necessary and will be removed.

At the beginning of each nap test, the sleep technologist will enter and darken the room and ask the patient climb into bed to attempt to fall asleep. After 15 minutes have passed, the technologist will check remotely (by way of the sensors) to see if the patient has fallen asleep.

- If the patient hasn't fallen asleep in 15 minutes, they will be given another 5 minutes to do so, and if they remain awake at the 20-minute mark, their test will conclude.
- If the patient has, in fact, fallen asleep, the technologist will awaken the patient at 15 minutes to conclude the study.

In both cases, once the sleep trial concludes, the technologist will reintroduce light into the test room and ask the patient to stay busy (reading a book, watching TV, computer work, knitting, etc.) until the next nap interval arrives, roughly 2 hours afterward.

If the patient does not fall asleep in the first 4 nap tests, the sleep technologist may opt to conclude the MSLT, allowing the patient to go home early. However, if the patient has fallen asleep at least once during the first first trials, they will be asked to stay for a final fifth test.

The naps take place so that the sleep technologist can measure for the following:

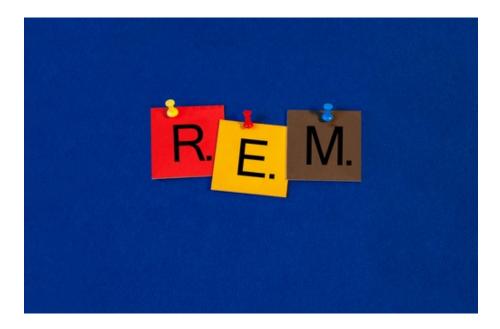
- Wake time during naps: Did they stay awake through the entire nap?
- Sleep time during naps: Did they fall asleep during the nap? How much did they sleep?
- Sleep stages during naps: If they fell asleep during the nap, what sleep stages were recorded during the test?
- Time to sleep onset: If they fell asleep during the nap, how long did it take for them to do so?

Ultimately, the MSLT is looking for two specific details: *sleep latency* and *sleep onset REM periods.* 

#### Sleep latency

This refers to the period of time it takes from the moment the test begins to the moment the patient falls asleep. Sleep, in this case, is defined as 90 continuous seconds of light (stage 1) sleep or 30 seconds of any other kind of sleep.

#### Sleep onset REM periods



This refers to the appearance of REM-phase sleep following the actual onset of sleep. In normal sleep architecture, a patient may take as much as 90 minutes to achieve stage REM sleep.

However, in narcoleptics, a quick movement directly into REM sleep following sleep onset is marked as a sleep onset REM period (or SOREMP).

A person who has an overnight sleep study with a followup MSLT the next day can be diagnosed with narcolepsy if they experience 2 or more SOREMPs either during the MSLT itself or in combination with the previous night's sleep study.

#### What does this have to d



#### o with Idiopathic Hypersomnia?

Idiopathic Hypersomnia is a diagnosis of extreme sleepiness which cannot be

explained otherwise (due to poor sleep hygiene, an underlying sleep disorder, or other medical condition), and does not qualify as narcolepsy due to an absence of SOREMPs and naps.

As with any *idiopathic* condition (meaning its origin is *unknown*), a patient with idiopathic hypersomnia may not necessarily receive the same treatment as someone with narcolepsy because enough isn't known about their condition to proceed confidently with a specific therapy.

This is why the MSLT is such an important diagnostic test for differentiating narcolepsy from idiopathic hypersomnia, because a positive diagnosis for narcolepsy allows the sleep physician to act on specific treatment protocols.

Narcolepsy is not a common sleep disorder, but it's not rare either, and researchers think it may be underdiagnosed. Having patients suspected of having narcolepsy participate in an MSLT is currently the American Academy of Sleep Medicine protocol for sleep clinics. A night of sleep and a day of naps may be all it takes to uncover those suffering from this life-altering sleep disorder and find pathways for treatment.

People who feel sleepy all the time and cannot easily explain why are encouraged to bring up this concern with their physicians. It's common to have an underlying sleep disorder and not know it. Since all sleep disorders are treatable, there's no reason *not* to consult about sleep problems so they can be identified and treated.

#### Sources:

American Academy of Sleep Medicine
Healthy Sleep (Harvard.edu)
National Center for Biotechnology Information
SLEEP
Sleep Review Magazine

At Sound Sleep Health, we offer a free sleep assessment to help you decide if you need to talk to somebody bout your sleep problems. Click here learn more.

### What is the Maintenance of Wakefulness Test?



There are a number of other tests performed in sleep clinics besides sleep apnea tests. They help measure the range of effects caused by other sleep disorders.

One of them is used to measure how easy it is for some to *stay awake*, as opposed to fall sleep.

### What is a Maintenance of Wakefulness Test (MWT)?

This particular daytime sleep study actually measures sleepiness in patients who

must try to stay awake for a length of time while sitting in a quiet, relaxing, stimulation-free environment.

The test takes place during the day in a sleep center, starting a couple of hours after normal wake time, then proceeding until completed by the afternoon.

#### How is the test conducted?

The MWT follows a specific protocol in which patients are asked to sit in a comfortable, dimly lit bedroom for 4 to 5 separate trials of up to 40 minutes each (with trials separated by 2 hours). They are asked to sit still and look forward, and they are not allowed to do anything that could help them to stay away (such as sing, do jumping jacks, or pinch themselves).



The patients are hooked up to various sensors which trace any changes in brain wave patterns, eye movements, and heart rate to indicate the measurable transition from wakefulness to sleep.

Most people who do not have daily problems with excessive sleepiness can pass this test easily. They simply sit in the chair for all of the trials and stay awake.

However, people with excessive daytime sleepiness (such as people with narcolepsy or obstructive sleep apnea) often fall asleep. Once they do this, and they maintain sleep for at least 90 seconds, that trial period has ended.

#### Who participates in an MWT?

This particular kind of diagnostic test is reliable for identifying the presence of hypersomnolence as well as its severity. There are two main populations of patients who may be asked to undergo the MWT.

Patients getting treatment for sleep disorders that lead to excessive daytime sleepiness take this test to determine the success of their therapy. Sleep specialists can adjust their therapies as necessary, based on the results.

The test is also used to determin



e the fitness of those working in jobs in which falling asleep is a grave threat to safety.

This includes all workers in the field of transportation (automobiles, planes, boats, trains, etc.) and those who operate heavy equipment and machinery.

Workers with obstructive sleep apnea (OSA), for instance, may be required by their employer to participate in a regular MWT to verify they are compliant with their therapy.

This is to ensure that they are aware and alert while operating a vehicle of other piece of dangerous equipment.

#### What happens when someone does not pass the MWT?

Up to 60 percent of people typically pass this test by staying awake for the entire 40 minutes during 4 trials. However, if a person taking the MWT falls asleep during the test, their result (whether they pass) depends upon how quickly they do so.

Nearly 98 percent of all participants stay awake for up to 8 minutes or more on average during their trials; therefore, those who fall asleep at an average of 8 minutes or less will have an abnormal test result.

In some cases, "failing" the MWT simply means a patient needs to increase their therapy to combat their daytime hypersomnolence.

However, for those taking the test due to employment regulations, a failing test may mean they are placed under supervision or otherwise removed from their job until they can make changes to correct their problems with staying awake.

Employers and state agencies all have different policies with regard to drowsy driving and negligence when it comes to operating any kind of heavy machinery.

Some pilots and truck drivers commonly and voluntarily take these tests as part of their job, as a preventive measure. Their employers follow an established protocol to test and identify safety risks and help those workers who cannot pass the MWT to improve their health situations s



o they can continue to work.

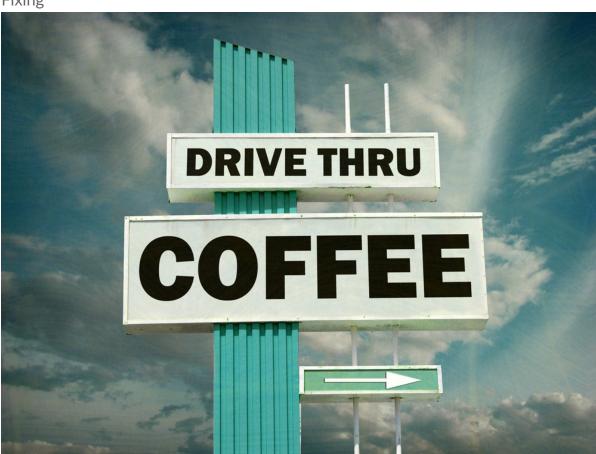
But other kinds of workers, such as cab drivers or others who work independently, may also have restrictions placed on them by the agencies which govern their businesses if they are shown to be a safety risk.

Then, they must prove they have their sleep disorders treated and that they are able to stay awake while at work.

In some cases, physicians who are aware of patients who drive or operate machinery, who are not yet treated for specific kinds of sleep disorders, or who are noncompliant with their therapies, are legally obligated to report them to the Department of Motor Vehicles as these people potentially present a huge safety risk to themselves and others.

#### Why does the MWT matter?





excessive daytime sleepiness is not simply a matter of getting enough coffee during the day. Hypersomnolence is a real problem with real consequences.

Alertness on the road and in the workplace is a major concern for public health and

safety. Drowsy driving and workplace accidents caused by sleepiness cost American employers, workers, and insurance companies tens of billions of dollars annually.

According to the Centers for Disease Control, sleep deprivation has become a public health epidemic, even surpassing obesity as a high-risk problem for all Americans. Some of the major causes of sleep deprivation are linked to untreated or undetected sleep disorders like OSA, narcolepsy, and insomnia, or to excessive somnolence caused by other chronic health problems, both which are often ignored or left untreated.

If you experience irresistible bouts of sleepiness, you need to consult with your primary care physician or sleep specialist to identify the root cause.

It is especially important to do so if you work in a field where you run the risk of falling asleep while operating any kind of heavy machinery (including, but not limited only to, vehicles). Please remember: it's better to be safe than sorry.

#### Sources:

American Academy of Sleep Medicine Centers for Disease Control National Institutes of Health SLEEP

## How much does a sleep study cost? (Prices and Rates)



At Sound Sleep Health, we provide a full range of sleep testing services, including CPAP titration studies, home sleep testing, multiple sleep latency tests, maintenance of wakefulness testing, PAP naps, EEG diagnostics, and actigraphy.

Regardless of your insurance status, you are encouraged to ask questions about medical pricing related to the sleep testing procedures we perform.

We believe our patients deserve transparency about the costs associated with sleep testing at our facilities. Our sleep medicine teams provide excellent service at an affordable rate and we are proud to be competitive with other providers in the Seattle area.

As you review our pricing, please remember that your individual insurance coverage (whether through a private insurer, insurance pool, or Medicare/Medicaid) may vary with regard to reimbursements for sleep studies, sleep specialist fees, and equipment. To know just what your insurance carrier will cover, you will need to consult your policy or call them directly.

Here's the breakdown of our pricing for sleep tests for adults, which are administered at all of our Sound Sleep Health locations:

Nocturnal Polysomnography (NPSG) - CPT #95810

\$1300

(\$1000 of this amount covers the technologist's services; Dr. Mazeika bills for interpretation at \$300)

#### Split Night Study or CPAP Titration Study - CPT #95811

\$1400

(\$1100 of this amount covers the technologist's services; Dr. Mazeika bills for interpretation at \$300)

Home Sleep Test (HST) - CPT #95806

\$450

Multiple Sleep Latency Test (MSLT) - CPT #95805

\$850

Maintenance of Wakefulness Test (MWT) - CPT #95805

\$850

PAP Nap - CPT #95807-52

\$750

**EEG Diagnostics - CPT #95816/95819** 

\$600/\$800

**Cash price:** We offer cash prices for patients needing to bypass insurance:

- NPSG, Split Night Study, CPAP Titration Study: \$750 (\$600 paid for testing, \$150 paid for interpretation)
- *HST:* \$300
- *MSLT:* \$600
- MWT: \$600
- *PAP Nap:* \$400
- *EEG:* \$350/\$450

*Note:* Cash transactions of \$200 or less must be paid in full at time of service; cash transactions of more than \$200 require 50 percent deposit at time of service.

If you have any further questions about our prices or pay schedules, or would like

to know which insurance carriers we are in network and contract with, feel free to contact us at Sound Sleep Health today at one of our three convenient locations in the Puget Sound area (Seattle, Kirkland, Northgate): **425-636-2400** 

# Does Insurance Pay for Sleep Studies? (Coverage, Costs, and Rates)



Insurance coverage may be the only kind of umbrella that rainy day Seattleites actually use when they can.

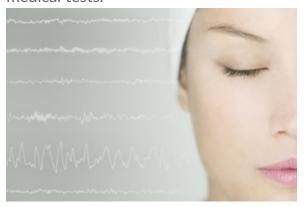
But insurance can be complicated, especially when it's applied to specific kinds of medical procedures and tests.

When it comes to sleep health diagnostics, the question begs:

#### Does health insurance cover sleep studies?

Yes, usually. The less-than-satisfactory answer is, "It depends." But by and large, all insurance payers offer some sort of reimbursement for sleep studies of all kinds.

This is one of the biggest questions we field from patients at the sleep center. They are reasonable to ask whether they have adequate coverage for an upcoming sleep test, which they understand can be more expensive than many other kinds of medical tests.



Last week we posted an article giving our particular rates for various kinds of sleep tests. These rates define the price for services we charge *before* insurance reimburses you for them. They're frequently much higher than what patients actually pay (if they are "in network").

#### What is the cost of a sleep study with insurance?

It's nearly impossible to capture all of the variations in reimbursement schedules from one insurance payer to the next, especially with so many different avenues for applying insurance benefits (for instance: private payer plans, Medicare/Medicaid, or health insurance exchanges through the <a href="Healthplanfinder.com">Healthplanfinder.com</a>, Washington state's health insurance marketplace provision for the Affordable Care Act).

However, here are some highlights and generalized guidelines for determining if, how, and when your insurer will cover your sleep study. For the purposes of this post, the discussion centers only on private insurance carriers and not CMS/Medicare/Medicaid.

### Solving the puzzle of insurance coverage for sleep studies

Understanding what's covered, what's not, how much, and when demands some

mastery over your own policy's terms and conditions. These include an insurer's specific testing protocols, network discounts, deductibles, coinsurance, copays, and



out-of-pocket limits.

#### Insurance requirements for sleep studies

Don't be surprised if your sleep test is different from your aunt's or your coworker's: the choice is often dictated by the insurance company. There's a wide range of rules for what insurance carriers will cover, with criteria to be met in order to approve claims.

For example, some insurers require you to have a less expensive home sleep apnea test (HSAT) first. HSATs can accurately diagnose about three quarters of patients with sleep apnea (if this is what is suspected), meaning an overnight sleep study isn't always needed for a diagnosis and treatment. This protocol saves patients and insurance companies money and speeds up the process for sleep centers and patients when sleep apnea is the expected outcome.

#### The "network" rule

Insurance companies often have networks of approved doctors who, by belonging to this network, are able to offer patients discounted rates on services. Patients stand to save more money by selecting doctors inside these approved "networks." The prices of tests are going to be less "in network" for both the patients and the insurance companies as a result.

But patients aren't required to use these networks; they are still given the option of seeking "out-of-network" physicians. However, reimbursements can be slim to none for these doctors, hence the "in network" carrot that insurance companies dangle.

If you've been referred to a sleep specialist for a sleep study, it's in your best interest to consult with your insurance payer first to confirm the sleep center and

specialist in your referral are "in network" so that you pay the least amount out of pocket.



#### The working parts of an insurance plan

#### **Deductibles**

The *deductible* is the amount you pay out of pocket for medical expenses before your insurance company's coverage kicks in.

If you have a deductible of \$1000 and you haven't had any other services performed prior to your sleep study, you will usually need to "pay down" that \$1000 deductible. After that, your insurance company begins to reimburse, with those amounts depending on your policy, whether you've stayed "in network" and whether you have coinsurance.

#### Coinsurance

This is the percentage you will still pay on medical services after the deductible has been satisfied. Usually this is an 80/20 split: the insurance company pays 80 percent of the final bill, and you pay the rest up to a predetermined maximum. Check your policy to figure out what your coinsurance percentages are.

#### Copayment

Copayment (or copay) usually applies to prescriptions and office visits, but some insurance companies may ask you to pay a small fee (copay) before having a sleep study. Again, you will need to consult your insurance carrier to see if they have any front-end fees you'll need to pay first.

#### **Out-of-pocket limits**

This term refers to the total amount you will actually pay for covered expenses in any given year. First you pay your deductible, then you pay your coinsurance percentage up to a predetermined amount. After you reach that limit, you have maxed out your out-of-pocket limit, and then your insurance company usually

covers all expenses at 100 percent.

Here's a tip: Pay attention to the scheduling of your sleep study as it relates to your deductible. Having a sleep study done in January can be costly, but once you pay your deductible, coinsurance can cover a majority of your durable medical equipment (DME) expenses and bring you closer to your overall out-of-pocket expenses limit, leaving the rest of your healthcare costs to be covered at 100 percent.

Having a sleep study at year's end, on the other hand, means you may have already reached out-of-pocket limits due to other medical costs. You will want to get your DME expenses covered and updated by December 31 or else you'll need a plan to pay toward your deductible the following January.

#### What if I don't want to pay with insurance?

Sometimes patients review their coverages, then look at their cash pay options, and decide to skip insurance coverage because it's less expensive to pay cash. We offer a cash pay rate that's discounted for this reason. People without insurance can also enjoy the cash-pay discount for services we



provide.

### What happens if my insurance carrier refuses to reimburse for my sleep study?

They may decide your sleep study is "medically unnecessary," even if your doctor thinks otherwise. This is often why the "HSAT first, PSG second" model is so prevalent. Insurance companies are trying to reduce costs, so they will demand less expensive tests up front.

However, a home sleep test may not only show you have sleep apnea. It might show a need for a more accurate in-lab test (an overnight test called a *nocturnal* 

*polysomnogram*) to measure severity of apnea or other symptoms; in this case, the insurance payer has the proof it needs to approve and pay for a test deemed to be of "medical necessity."

#### Proving medical necessity

Keep in mind that while there are textbook ideas about conditions like sleep apnea, patients are unique and rarely fit the mold. Insurance companies know this and require a great deal of information about you as a patient in their decision whether to reimburse for a study. Proof of *medical necessity* is a critical part of their analysis.

They look at other health conditions (such as preexisting cardiovascular disease, as an example) and past medical history (triple bypass, for instance) to determine the kind of test you will receive. Not all tests are right for all patients. Certain patients will not qualify for HSAT if they meet other criteria; they may be granted a reimbursable in-lab sleep test outright instead.

Uncertain about your coverage? Call your insurance company and ask them what you need to show in order to receive approval for a sleep study.

#### How can Sound Sleep Health help?

We can and do verify insurance coverage and make pre-authorizations in our office to ensure you will receive the reimbursements your policy covers. You can ask us about your options and what to expect before you sleep study so that there won't be any big surprises after the fact.

Sometimes a sleep study can elicit more anxiety due to its costs than to the mystery surrounding the test itself. Sleep studies can be expensive, but they don't have to be, if you have a solid understanding of your health insurance coverage and your options.

Remember: the price of a sleep test and therapy may be more than you'd like to pay, but it's nothing compared to the price you'll eventually pay for untreated sleep apnea or other sleep disorders... not only in dollars, but in quality and length of life.

