



WHAT IS A POLYSOMNOGRAPHIC TECHNOLOGIST?

What is the primary role of a Polysomnographic Technologist?

A Polysomnographic Technologist, commonly referred to as a Sleep Tech, is a trained medical professional that performs the sleep study to help determine if someone has one of the many diagnosable sleep disorders, such as snoring, obstructive sleep apnea or even narcolepsy. The sleep study is typically a 6 to 8 hour digital recording that is usually done in a sleep center and may be located in a hospital, office building or even a hotel. Ultimately, Sleep Techs are members of a health care team that work together to help diagnose and treat sleep disorders.

Background, Education & Training

Sleep Techs often have experience in performing medical procedures or providing medical care. Many have worked previously as EEG or Neurodiagnostic Technologists, Respiratory Therapists, Cardiac technicians or EMTs. There are, however, some that obtain an entry-level position with no previous experience since the field is relatively new and rapidly growing. Those individuals often receive their training as “on-the-job training” combined with some level of a formal training program. Training programs may be obtained online through self study modules or course instruction that can last days, weeks or even years. The amount, type of previous experience, and/or formal training required for exam eligibility will vary depending on the credentialing body and the pathway chosen.

There are generally four levels of sleep techs:

1. Polysomnographic Trainee, who usually require direct supervision by a trained Sleep Technologist while learning. Trainees usually are working toward a national credential, such as CPSGT.
2. Polysomnographic Technician, who may work nights independently to record the sleep study and perform titrations. Technicians are usually working toward a national credential, such as CPSGT or RPSGT.
3. Certified Polysomnographic Technologist (CPSGT), who has demonstrated a strong entry level knowledge to pass the national exam. CPSGT mostly work nights and are generally working toward the RPSGT or RST credential within three years of obtaining their CPSGT.
4. Registered Polysomnographic Technologist (RPSGT) or Registered Sleep Technologist (RST) who has the required experience and knowledge to pass the difficult national exam. RPSGTs and RSTs work days and/or nights and may have scoring and supervisory duties.

The Reference Material

The following references can help any sleep technologist develop as well as use as an invaluable asset during their career.

1. American Academy of Sleep Medicine (2012). *The AASM Manual for the Scoring of Sleep and Associated Events, Rules, Terminology and Technical Specifications, Version 2.*
2. American Academy of Sleep Medicine. *Practice Parameters and Clinical Guidelines.*
3. American Academy of Sleep Medicine. *International Classification of Sleep Disorders - 2 (ICSD-2)*
4. Krieger, Roth, Dement. *Principles and Practice of Sleep Medicine, 5th Edition.*
5. American Sleep Academy, LLC. *Principles of Polysomnography. A Complete Training Program for Sleep Technicians, Second Edition.*
6. William H. Spriggs, BS, RPSGT. *Essentials of Polysomnography. A Training Guide and Reference for Sleep Technicians.*
7. R. Berry. *Fundamentals of Sleep Medicine*
8. T. Lee-Chiong. *Fundamentals of Sleep Technology, 3rd Edition.*
9. S. Chokroverty. *Sleep Disorders Medicine, 3rd Edition.*

The Diagnostic Study

When a patient is referred to the sleep center for a diagnostic evaluation, the Sleep Technologist usually greets the patient and orients the patient to the facility as they are escorted to their private bedroom. Within the bedroom, the patient will prepare for bed just before the sleep tech strategically attaches the multitude of electrodes and sensors to the patient's skin.

After the sensors are applied, the patient settles in bed, the digital equipment is calibrated, the lights are turned out and the recording begins. While the patient sleeps, the sleep technologist is busy watching both the video monitor of the patient as well as the computer monitor that displays the various channels of brainwaves, eye movements, chin and leg muscle movements, breathing effort, and airflow. The sleep technologist will also record any expected or unexpected behavior by the patient. Making careful notations throughout the night is a critical responsibility of the sleep tech to assist in the interpretation of the recording.

In the morning, the technologist ends the recording and removes the electrodes from the patient. The entire recording is then scored by a sleep technologist with an advanced credential such as the RPSGT and RST. The scoring technologist analyzes the study and assigns each EPOCH or 30 Second section the appropriate stage of sleep as well as the presence of abnormal breathing, leg and chin movements or any other activity that may have been observed and recorded during the night.

A report is generated from the scoring, reviewed for accuracy and then given to the doctor who will prepare a interpretation that will summarize a overall impression with any appropriate diagnosis as well as any recommendation(s) for treatment, if medically necessary.

The Therapeutic Study

Many patients who have a sleep study often have some degree of Sleep Disordered Breathing, most commonly Obstructive Sleep Apnea, which are repeated episodes of a partially or completely blocked upper airway that leads to corresponding drops in blood oxygen and brief interruptions of the sleep cycle.

A generally accepted and most common method of treating this type of sleep disorder is CPAP, (Continuous Positive Airway Pressure), which requires the patient to return to the sleep center to repeat the sleep study but this time wear a soft nasal mask over the nose or a full faced mask that covers both the nose and mouth. The mask is connected via a hose to a small air blower at the patient's bedside. When the patient wears the mask and receives the positive pressure, the snoring and obstructive breathing are effectively minimized, if not completely eliminated, so that the patient enjoys a normal sleep. Different patients require different levels of air pressure and the usual method of determining the proper pressure is called CPAP Titration.

A Sleep Technologist usually performs the CPAP titration study. This often involves a process of patient education and desensitization prior to the titration study starting and then careful observation and pressure adjustments by the sleep technologist during the recording. The same process for scoring and interpretation will occur after the titration study is completed. Technologists may also be asked to participate in the follow-up and long term care of the CPAP user.

The Work Schedule

Most sleep studies are performed during the patient's usual sleep hours, which require sleep techs to work during the evening and night hours. The shift is usually 10-12 hours long and the work week is sometimes limited to three nights. Depending on the size of the sleep center, several techs may work together or may work alone for the entire night caring for one, two or even three patients each.

These work conditions require the ability to remain awake, alert and maintain good interpersonal skills throughout the night. Sleep Techs must also have the ability to get proper sleep during the day as to avoid developing their own circadian rhythm sleep disorder.

The scoring analysis is usually performed during the day along with some other types of sleep studies called Multiple Sleep Latency Test (MSLT) or Maintenance of Wakefulness Test (MWT). Daytime positions are usually obtained after spending some time as a performing technologist at night. A daytime position may involve arriving early in the morning, staying late in the evening or may involve normal business hours.

The Salary

According to the Bureau of Labor Statistics, Occupational Employment Statistics Survey for the State of Texas 2012, Wages for "Health Technologists and Technicians, All Other", which includes sleep technologists, the salary range for Texas was \$12.16 or \$25,500 per year to \$31.60 per hour or \$65,700 per year. The median salary was \$19.44 per hour or \$40,400 per year. Of course, many factors make up the appropriate salary for any position such as the region you live in, the amount of past experience, possession of a national credential as well as current demand for sleep technologists in your area.

The Professional Associations

Although it is not usually required, many sleep technicians/technologists are members of a national organization, like the American Association of Sleep Technologists (AAST). The AAST performs national surveys of technician/technologists, provides annual awards, educational courses, and maintains committees to ensure that standards of care and practice in the profession are developed and maintained. The website for the organization is <http://www.aastweb.org/>.

The AAST monitors both federal and state legislative and regulatory activity that might affect job classifications as well as the health and safety of the nation or reimbursement of sleep-related medical procedures.

Additionally, there may be state and regional organizations that also sleep technicians/technologists can participate in and support the field of sleep medicine.