NOTES

Your doctor or therapist has given you this patient education handout to further explain or remind you about an issue related to your health. This handout is a general guide only. If you have specific questions, discuss them with your doctor or therapist.

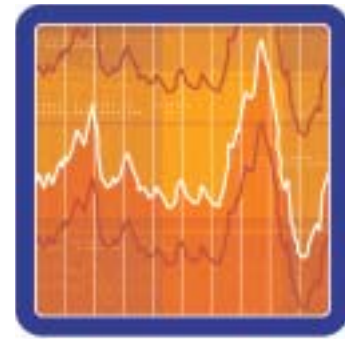
Making the Most of Sleep Study Results

By Debra Yemenijian

Modern medicine suggests more than 80 different disorders can affect your ability to sleep and wake up normally. Fortunately, most of these disorders can be diagnosed with an overnight sleep study at a sleep laboratory.

An overnight sleep study produces the equivalent of hundreds of pages of data about how your body functions during sleep. Once the data are analyzed, your test results will help your physician choose the appropriate treatment for your sleep problem.

You're entitled to a copy of your results, and the best time to obtain one is when you see your physician to discuss the test. Your results will be informative and easy to interpret when armed with some of the following information.



TOM WHALEN

AROUSAL INDEX

Sleep test results will indicate the number of arousals, or micro-awakenings, that occur while you're asleep. Although you may not fully awaken during these events, arousals can interrupt the quality of your sleep. They're classified into three main categories: movement, spontaneous and respiratory.

Movement arousals are awakenings caused by periodic limb movements. These are distinguished by one or both arms or legs jerking during sleep. This sometimes causes patients to fully wake up or disturb their bed partner.

Spontaneous arousals are awakenings that may be caused by snoring or suspected upper airway resistance syndrome. Other environmental or physical factors also may contribute to spontaneous arousals.

Respiratory arousals are awakenings caused by respiratory events that interrupt your breathing.

If your sleep test indicates more than 40 respiratory arousals per hour, your doctor may diagnose you with sleep apnea and prescribe treatment with continuous positive airway pressure.

The level of arousal severity is classified as follows: normal (0 to 5 arousals/hour); mild (6 to 20 arousals/hour); moderate (21 to 40 arousals/hour); and severe (> 40 arousals/hour).

RESPIRATORY DISTURBANCE INDEX

Respiratory arousals are categorized in another section of your sleep results in the respiratory disturbance index, or apnea-hypopnea index, and it measures the average number of apneas and hypopneas occurring in one hour of your sleep. Physicians classify the severity of respiratory events the same way as they measure arousals. (See above.)

Apneas and hypopneas can be divided into three categories: obstructive, central and mixed. Obstructive sleep apneas are the most common of the three types.

During an obstructive apnea, nasal and oral airflow stops, but respiratory effort continues. With central apnea, respiratory effort stops along with oral and nasal breathing. Central apneas are seen less often in sleep patients.

With mixed apnea, the respiratory event typically begins as a central apnea. However, after a period of time, respiratory effort continues and airflow stops.

Hypopneas, the second type of respiratory events, are a milder form of apnea. With hypopnea, the airflow decreases and results in at least a 2-percent drop in oxygen in the body.

SLEEP ARCHITECTURE

If left undiagnosed or untreated, both apneas and hypopneas will continue to interrupt your normal sleep architecture. The sleep architecture section of your sleep results will describe the sequence and duration of the sleep stages the body goes through and any arousals that occur while sleeping.

Your sleep architecture also will help determine sleep latency, or the time it takes you to fall asleep after you settle into bed. Normal sleep latency is five to 10 minutes. Sleep architecture also determines REM latency, or the time it takes to achieve REM sleep from the time you fall asleep. A short REM latency may indicate depression, sleep deprivation or narcolepsy.

If you have any questions about your sleep test or diagnosis, consult your sleep physician. ■

Editor's note: Information adapted from the California Center for Sleep Disorders and SleepQuest.

Debra Yemenijian is assistant editor of ADVANCE. *She can be reached at* debray@merion.com.

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