Excessive daytime sleepiness and fatigue are common complaints in the sleep clinic. The objective evaluation and quantification of these symptoms is important for both the diagnosis and treatment determination. The multiple sleep latency test measures physiologic sleepiness, whereas the maintenance of wakefulness test (MWT) aims to measure manifest sleepiness. Neither test correlates well with subjective measures of sleep such as the Epworth sleepiness scale and the Stanford sleepiness scale. Although in the past methodological testing differences existed, in 2005 updated practice parameters were published, promoting the standardization of testing procedures. In recent years, there has been an effort to document daytime sleepiness when associated with occupational risk. However, these laboratory-based tests may not reflect or predict real-life experience. Normative data for both tests, particularly the MWT, are limited, and are inadequate for the evaluation of pediatric patients, shift workers, and others.

Key words: excessive daytime sleepiness; maintenance of wakefulness test; multiple sleep latency test

Abbreviations: ASM = American Academy of Sleep Medicine; EDS = excessive daytime sleepiness; ESS = Epworth sleepiness scale; MSLT = multiple sleep latency test; MWT = maintenance of wakefulness test; OSA = obstructive sleep apnea; REM = rapid eye movement; SOREMP = sleep-onset rapid eye movement sleep period; SSS = Stanford sleepiness scale

When present, EDS is associated with a host of undesirable consequences, including impaired job and psychosocial performance, diminished intellectual acuity, and a risk of accidents. Such impairments, while common, have also in some cases been implicated in major disasters such as those at the Chernobyl and Three Mile Island nuclear facilities, and the running aground of the Exxon Valdez.

Given such profound consequences, the objective quantification of EDS is critical. Several methods have been used to measure sleepiness subjectively, including self-assessment tools such as the Stanford sleepiness scale (SSS), published by Hoddes and Zarcone in 1972, and the Epworth sleepiness scale (ESS), established by Johns in 1991. The SSS, which involves introspective judgment of one’s own sleepiness, has been well-validated in control subjects, but patients with chronic sleepiness may not accurately assess their own level of sleepiness. The main utility of the SSS is in research applications, where it is used for point-in-time estimation of the level of daytime sleepiness. By contrast, the ESS is frequently used in
clinical practice and focuses on self-reported behavior. For the ESS, patients rate the likelihood of falling asleep in eight scenarios, on a scale of 0 (not at all likely) to 3 (very likely). Patients with scores of \( \geq 10 \) typically require additional investigation.\textsuperscript{9}

Objective measures of EDS have also been investigated. These include pupillometry,\textsuperscript{10} performance-based tasks,\textsuperscript{11,12} and, more recently, the multiple sleep latency test (MSLT).

**THE MSLT**

**Background**

The MSLT is an objective test of physiologic sleepiness that was first employed at Stanford University by Carskadon and Dement.\textsuperscript{13} It has since achieved widespread usage in clinical practice, both because of its intuitive approach to testing sleepiness and its multiple opportunities to test for sleep-onset rapid eye movement sleep periods (SOREMPs), which is useful in the diagnosis of narcolepsy.\textsuperscript{14} The American Academy of Sleep Medicine (AASM) has published a report\textsuperscript{1} indicating that the MSLT is considered to be the *de facto* standard for the objective measurement of sleepiness.

**Testing Methods/Conditions**

The MSLT technique is standardized and has been published by the AASM.\textsuperscript{1,15} Testing conditions require well-controlled, consistent procedures. Ideally, patients should discontinue therapy with any medication that might affect sleep latency (eg, stimulants, hypnotics, and antihistamines) and rapid eye movement (REM) latency (eg, antidepressants) for at least 15 days before the study. Therapy with such medications should be stopped for at least five half-lives of the drug and the longer acting metabolite.\textsuperscript{4} Urine drug screening is performed on the morning of the test to assist in confirming that the pretest conditions are met. Smoking should be stopped at least 30 min before each nap opportunity, and caffeine should be avoided on the test day, although acute withdrawal from caffeine may affect the test results. Vigorous physical activity and bright sunlight should also be avoided.\textsuperscript{1}

A polysomnogram should be performed the night before the MSLT to assess nighttime sleep quality and quantity. Untreated obstructive sleep apnea (OSA) or other causes of disrupted sleep should be ruled out or treated before proceeding with the MSLT. If the subject has known OSA, adequate nocturnal positive airway pressure therapy must be administered leading up to the MSLT in order to ensure that untreated OSA does not confound MSLT results. If the patient has a high number of periodic limb movements with arousals observed on overnight observation, the decision to proceed with the MSLT study must be based on clinical judgment. In addition, a minimum of 6 h of nocturnal sleep should be achieved before proceeding with the MSLT when evaluating for narcolepsy, since the use of this test to support a diagnosis of narcolepsy is “suspect” without a prior night of sleep of at least 6 h duration. The 6-h minimum total sleep time over the preceding night is advised whenever the test is performed.\textsuperscript{1}

Since MSLT results may be influenced by sleep up to 7 nights before the test, the preceding sleep-wake cycle should be standardized for at least 7 days, and patients should be advised to obtain adequate sleep for 1 to 2 weeks prior to test performance. They may be asked to complete sleep diaries for 1 or 2 weeks prior to testing.\textsuperscript{16} Actigraphy has also been suggested\textsuperscript{4} as an objective means to document adequate sleep leading up to the study.

On the day of the test, a light breakfast is recommended 1 h before the first trial, and a light lunch is recommended immediately after the second noon trial.\textsuperscript{1} The MSLT typically consists of five nap opportunities performed at 2-h intervals; four naps may also be used, but this may limit its usefulness in the diagnosis of narcolepsy.\textsuperscript{1} Naps are conducted in a sleep-promoting environment, typically a dark, quiet room that is maintained at a comfortable temperature. The initial nap begins 1.5 to 3 h after awakening from nocturnal sleep. Prior to the start of the nap, the subject should be asked whether they need to go to the bathroom or whether other adjustments are needed for comfort.\textsuperscript{1} Subjects should be in bed 5 min before the scheduled start of the test to perform calibrations of recorded parameters. In addition, this step is helpful in standardizing activity before the start of the test, which may influence nap latency.\textsuperscript{17} For each nap, the subject is instructed to “please lie quietly, assume a comfortable position, keep your eyes closed, and try to fall asleep.” The start of the test is signaled by turning off the bedroom lights. The test is ended 20 min later if no sleep has occurred or 15 min of “clock time” (not sleep time) after the first epoch of sleep, irrespective of whether REM sleep has occurred or not.\textsuperscript{18} Although positive airway pressure therapy is typically not used during the MSLT study itself in those patients with OSA, this matter has not been addressed in the guidelines and clinical judgment is recommended.

**MSLT Scoring**

The basic recording montage used for the MSLT is based on standard Rechtschaffen and Kales\textsuperscript{19} technique, which was updated by the AASM in 2007.\textsuperscript{19}
### MSLT Protocol

1. Start testing 90 minutes to 3 hours after the rise time. Five naps should be conducted unless the first four naps contain at least two SOREMPs.

2. The MSLT should be performed after a full night of sleep (at least 6 hours). A sleep log for one week prior to testing is helpful to establish that the subject has not been sleep-deprived.

3. Standardization of testing conditions is important. Rooms should be dark and quiet, and at a temperature comfortable for the patient.

4. Ideally, testing should be performed off stimulant medications and REM suppressing medications for at least two weeks; physician discretion is advised. Drug screening may be performed. Tobacco use should be stopped at least 20 minutes prior to each nap. Caffeine and bright sunlight should be avoided on the test day. Light breakfast is recommended at least one hour before the first trial, and light lunch is recommended immediately after the second (noon) trial.

5. Sleep technologists who perform the MSLT should be experienced in conducting the test.

6. Recording montage for the MSLT includes frontal, central and occipital EEG, right and left eye EOGs, EMG, and EKG.

7. Ensure that patients are comfortable before initiating the nap. Each nap should be started with a biocalibration.

8. At the start of each nap, tell the patient, “Please lie quietly, assume a comfortable position, and try to fall asleep.” Then the bedroom lights should be turned off.

9. Between naps, patients should be out of bed and awake.

10. Sleep onset for the MSLT is the time from lights out to the first epoch of any stage of sleep. The 30-second epoch must have greater than 15 seconds of sleep. If there is not sleep, the sleep latency is 20 minutes. If there is sleep, the test continues for 15 minutes of clock time (not sleep time) after the first epoch of sleep. REM latency is the time from the first epoch of sleep to the first epoch of REM sleep.

11. A nap is stopped after 20 minutes if sleep does not occur.

12. The MSLT report should include the start and stop times of each trial, latency from lights out to the first epoch of sleep, mean sleep latency, and the number of sleep-onset REM periods.

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**Figure 1.** MSLT protocol. Adapted from Littner et al.1

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The montage that was recommended includes the use of frontal (F4-M1), central (C4-M1), and occipital (O2-M1) EEG derivations, and horizontal electrooculogram, ECG, and mental/submental electromyogram electrodes. Respiratory flow and microphone signals may be helpful to judge snoring and sleep onset. The interpretation of the MSLT relies on standard scoring criteria for sleep onset latency and stages of sleep, which were updated by the AASM in 2007. The mean latency of all naps is calculated. If REM sleep is scored, latency from sleep onset to REM is also calculated. It is accepted that a mean sleep latency of < 5 min indicates a pathologic level daytime sleepiness; by contrast, adult healthy control subjects have a mean sleep latency of 10 to 20 min. Sleep latencies between 5 and 10 min indicate moderate sleepiness with less well-defined pathology and consequences; the most recent *International Classification of Sleep Disorders* has identified a mean sleep latency of < 8 min to define sleepiness for diagnostic purposes. A mean sleep latency of < 5 min has been linked to impaired performance in patients and sleep-deprived subjects without baseline sleepiness. Of note, “microsleep” episodes lasting < 15 s are not scored as sleep, and though they may have important physiologic significance, they are not reflected in MSLT scoring and interpretation. Although the above cutoffs for abnormal study findings are used, there is variation in the range of mean sleep latency among populations, which may be related to methodological differences, individual differences in sleep tendency, or undiagnosed un-
derlying disorders. A metaanalysis determined that the MSLT-documented mean (± SD) sleep latencies in patients with narcolepsy were 3.1 ± 2.9 min; in patients with idiopathic hypersonnia, the mean was 6.2 ± 3.0 min. However, mean sleep latency in healthy control subjects has been reported to be 10.5 ± 4.6 min; because of a potential overlap between values obtained in healthy control subjects and those with underlying conditions of hypersonnia, good clinical judgment is imperative in interpreting results.

Abnormal SOREMPs are defined as REM onset within 15 min of sleep onset. These are important in the diagnosis of narcolepsy and idiopathic hypersonnia; but care must be taken to rule out other important causes of SOREMPs such as sleep deprivation, shift work, or other sleep disorders, including OSA. The presence of two or more SOREMPs during the MSLT is deemed to be a very specific finding in narcolepsy patients; however, in a 2006 population-based sample of 333 subjects in Michigan, the overall prevalence of two or more SOREMPs was 3.9% (in the group with an MSLT result of ≤ 5 min, 9.5%). This underscores the need for both careful elimination of other causes of SOREMPs and for the careful interpretation of results within the context of the patient’s clinical presentation. In addition, approximately 15% of patients with narcolepsy who have cataplexy, and even a higher percentage (25%) of narcolepsy-cataplexy patients who are > 36 years of age, may have a normal or borderline MSLT result (ie, either a sleep latency of ≥ 8 min or only one SOREMP). In fact, although the performance of the MSLT is part of the recommended investigation of the diagnosis of narcolepsy, and the presence of both short mean sleep latencies and multiple SOREMPs are very specific for the disorder, the sensitivity of these measures is poor (reported to be in the range of 46%).

Though results may be influenced by test protocol variables, high test-retest reliability has been demonstrated with the four nap MSLTs in healthy subjects, and reliability is not affected by the degree of sleepiness. Zwyghuizen-Doorenbos et al published data on test-retest reliability among 14 healthy subjects on two occasions that were separated by 4 to 14 months, and showed that the mean sleep latency was highly consistent from MSLT to MSLT (r = 0.97; p < 0.001) for four naps. Additionally, the test has been shown to have high intrarater and interrater reliability for sleep latency and REM onset scores among a population of people with sleep disorders.

Clinical Application of the MSLT

The MSLT is used most frequently in clinical practice to provide an objective measure of reported daytime sleepiness. The differential diagnosis for EDS includes such conditions as narcolepsy, idiopathic hypersonnia, sleep deprivation, periodic limb movement disorder, medication-induced hypersonnia, sleep-related breathing disorders, and psychiatric disorders. Of these, the MSLT is indicated if narcolepsy or hypersonnias of central origin are suspected. The MSLT is not routinely used to evaluate the EDS associated with suspected OSA, other medical or neurologic disorders, insomnia, or circadian rhythm sleep disorders.

Limitations

The MSLT is subject to several limitations that must be kept in mind during its application and interpretation. First, the MSLT is not validated as a diagnostic test in children < 8 years of age. Second, normal and abnormal sleep latencies have not been established outside the usual testing hours of 8:00 AM to 6:00 PM. Individuals with circadian rhythm sleep disorders such as delayed sleep phase-type disorder or shift work-type disorder may, therefore, have results which are difficult to interpret if they are tested during hours when they would typically be asleep. In some cases, delaying the wake-up time and subsequent MSLT start time may be appropriate. Third, the MSLT is sensitive to sleep deprivation, and subjects who have not been encouraged to obtain as much sleep as possible for 1 week prior to undergoing the MSLT may demonstrate shorter sleep latencies. As discussed earlier, there is the potential for the sleep latencies of healthy individuals to fall within the boundaries of abnormal results, so care must be taken in the interpretation of the test results. Additionally, the 6 h of nocturnal sleep required by the testing guidelines may also be too little for some individuals, who may not be adequately rested for the daytime protocol.

The Maintenance of Wakefulness Test

Background/Rationale

In contrast to the MSLT, which measures a subject’s ability to fall asleep, the maintenance of wakefulness test (MWT) measures a subject’s ability to stay awake in a quiet, nonstimulating situation for a given period of time. The MWT may be used to evaluate the response to therapy for individuals in whom conditions causing daytime sleepiness have been diagnosed, and is also helpful for those persons who must demonstrate the ability to stay awake for
safety and/or employment purposes. The face validity of this test stems from the notion that the volitional ability to stay awake provides insight into an individual’s capacity to remain awake, and to assess for the response to interventions designed to improve daytime wakefulness.

Testing Methods/Conditions

The MWT should be performed at the following times: when the patient is adherent to therapy for any identified sleep disorder; when patients are on their usual sleep/wake schedule; and only when the patient has experienced an adequate quantity and quality of sleep on the night prior to undergoing MWT testing. Although performing routine polysomnography prior to the MWT is not an essential part of the protocol, it should be considered on the basis of clinical circumstances, and may be helpful for assessing factors that may skew daytime test results. Sleep logs are not required before the patient undergoes the MWT.

A variety of MWT protocols, ranging from 20-min to 40-min naps, and various rules for determining sleep latency have been used in the past. The following protocol has been recommended in the most recent AASM practice parameters, which were published in 2005.

A four-trial, 40-min protocol is recommended, with 2 h between each trial. Sleep rooms should be dark and quiet during testing. Though a 7.5-W nightlight may be used as a light source, delivering 0.1 to 0.13 lux, the room should be maximally shielded from external light. Room temperature should be set to the patient’s comfort level. The patient should be seated in bed, with the back and head supported by a bolster pillow for comfort.

A light breakfast is recommended at least 1 h before the first nap trial, and a light lunch is recommended immediately after the second (noon-time) nap trial. Smoking should be stopped at least 30 min before test initiation. In addition, stimulating activities should be stopped 15 min before each nap. The use of caffeine, tobacco, or other medications should be discussed and decided on before the test day. Exposure to bright sunlight is discouraged on the testing day.

The recommended recording montage for MWT is the same as that used for the MSLT, including frontal, central, and occipital EEG derivations, and right and left electrooculogram, ECG, and mental/submental electromyogram leads. After biocalibrations, the patient is instructed to “please sit still and remain awake as long as possible. Look directly ahead of you, and do not look directly at the light.”

Patients are also instructed to avoid extreme behaviors to stay awake, such as singing, slapping the face, or pinching.

Sleep latency, stages of sleep, total sleep time, and mean sleep latency across the four naps are recorded, as are the start and stop times for each nap. Sleep onset occurs with the first epoch demonstrating at least 15 s of consecutive sleep. The trial ends after 40 min if no sleep occurs, or after unequivocal sleep, which is designated as three consecutive epochs of non-REM stage N1 sleep or one epoch of any other stage of sleep.

MWT Scoring

AASM standard scoring rules, which were updated in 2007, were used to determine sleep latency values. There is a paucity of published reports of normative data for the MWT. In a study by Doghramji et al., the control values for mean sleep latency using the MWT 40-min protocol were 30.4 ± 11.20 min, using latency to the first epoch of sleep. A total of 97.5% of healthy subjects had a mean sleep latency of ≥ 8.0 min, and 42% of healthy subjects remained awake for the entire 40-min trial across the four trials, using a definition of sleep onset of the first continuous 10-s of stage N1 sleep or the first epoch of any stage of sleep. Later reports in small samples have had similar normative findings.

Staying awake for all four trials of a 40-min MWT provides the strongest support of an individual’s ability to stay awake, and the AASM has called this standard “an appropriate expectation for individuals requiring the highest level of safety.” Using these same data, a mean sleep latency on the 40-min MWT of < 8.0 min has been considered abnormal, and values of 8 to 40 min are of uncertain significance. No matter what the results of the MWT, there is no way to ensure that the subject will not have sleepiness in the work environment, since many other variables are at play that cannot be accounted for in the laboratory.

When used to evaluate the response to treatment, there are no established cutoff values for a change in mean sleep latency. However, the direction of change can serve as a clinical guide. For example, several studies have suggested that mean sleep latency is increased in narcolepsy patients following the administration of modafinil; equally, mean sleep latency is also prolonged following the administration of stimulants or CPAP and is decreased after the administration of sedative medications. In a study of 30 male subjects with untreated OSA, a pathologic sleep latency of 0 to 19 min was useful in predicting driving ability (measured by deviation from driving in the center of the road on a driving simulator).
The MWT may be used to measure the ability to stay awake in individuals with jobs that require high levels of alertness, especially when public safety is at stake. As noted above, it may also be used to assess the response to treatment. Also, the MWT has been increasingly used in “fitness-for-duty” evaluations for truckers or other persons with high-risk jobs following treatment for conditions known to cause daytime sleepiness and to increase the risk of accidents. Although the MWT has some credibility in such evaluations, many believe that the test is best used as one piece of a comprehensive assessment of fitness for duty. Other studies have suggested that the MWT should not be used for the assessment of workplace safety at all because the impact of chronic sleep deprivation and circadian disruptions cannot be accounted for or adequately assessed in the laboratory setting. Real-life performance may be affected by the timing of sleep over the 24-h period, total sleep time, time of day, and alerting or soporific environmental influences, among other factors. Furthermore, based on the available data in the literature, the test-retest reliability of the MWT in healthy subjects is uncertain.

In a 2006 publication, a joint task force of the American Academy of Chest Physicians, the American College of Occupational and Environmental Medicine, and the National Science Foundation issued a statement that commercial drivers with OSA should be cleared for return to work based on compliance with positive airway pressure and/or a documented apnea-hypopnea index of ≤ 10. The MWT is not necessary or recommended for clearance of commercial drivers, largely because of the poor correlation to real-life driving situations.

**Clinical Application of the MWT**

The MWT may be used to measure the ability to stay awake in individuals with jobs that require high levels of alertness, especially when public safety is at stake. As noted above, it may also be used to assess the response to treatment. Also, the MWT has been increasingly used in “fitness-for-duty” evaluations for truckers or other persons with high-risk jobs following treatment for conditions known to cause daytime sleepiness and to increase the risk of accidents. Although the MWT has some credibility in such evaluations, many believe that the test is best used as one piece of a comprehensive assessment of fitness for duty. Other studies have suggested that the MWT should not be used for the assessment of workplace safety at all because the impact of chronic sleep deprivation and circadian disruptions cannot be accounted for or adequately assessed in the laboratory setting. Real-life performance may be affected by the timing of sleep over the 24-h period, total sleep time, time of day, and alerting or soporific environmental influences, among other factors. Furthermore, based on the available data in the literature, the test-retest reliability of the MWT in healthy subjects is uncertain.

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**MWT Protocol**

1. Four trials of 40 minutes each, performed at two-hour intervals, is recommended. Start the first trial 90 minutes to three hours after the rise time.

2. An overnight polysomnogram is not required before the MWT. Sleep logs are not required before the MWT.

3. Standardization of testing conditions is important. Rooms should be dark and quiet, and at a temperature comfortable for the patient. There should be a night light in the room. The subject should be seated in bed with the back and head supported by a bolster pillow so that the neck is comfortable.

4. The use of stimulants and other medications should be decided by the sleep clinician ahead of time. Drug screening may be performed. Tobacco use should be stopped at least 20 minutes prior to each nap. Caffeine and bright sunlight should be avoided on the test day. Light breakfast is recommended at least one hour before the first trial, and light lunch is recommended immediately after the second (noon) trial.

5. Sleep technologists who perform the MSLT should be experienced in conducting the test.

6. Recording montage for the MSLT includes frontal, central, and occipital EEG, right and left eye EOGs, EMG, and EKG.

7. Ensure that patients are comfortable before initiating the nap. Each nap should be started with a biocalibration.

8. At the start of each nap, tell the patient, “Please sit still and remain awake for as long as possible. Look directly ahead of you, and do not look directly at the light.” Patients are not allowed to use extraordinary measures to stay awake such as slapping the face or singing.

9. Sleep onset is defined as the first epoch with greater than 15 seconds of cumulative sleep in a 30-second epoch.

10. Trials are ended after 40 minutes if no sleep occurs, or after unequivocal sleep, defined as three consecutive epochs of stage 1 sleep or one epoch of any other stage of sleep.

11. The MWT report should include the start and stop times of each nap or nap opportunity, latency from lights out to the first epoch of sleep, mean sleep latency, and sleep stages seen.

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**Figure 2. MWT protocol. Adapted from Littner et al.**

Nonetheless, the Federal Aviation Administration uses the MWT in the evaluation of pilots with OSA. Specifically, if OSA exists and there is “any question about response to or compliance with treatment, then an MWT will be required” (www.faa.gov). If the MWT demonstrates “sleep deficiency,” then the pilot may not achieve medical clearance for duty.

**Limitations**

From the standpoint of occupational safety, more studies are needed to determine how performance on the MWT may affect actual performance in real-life situations. Currently, the correlation between MWT performance and the risk of adverse outcomes at work is unknown. The MWT, like the MSLT, is a test that is performed in laboratory circumstances, which may correlate poorly to performance on the job. Standardized measures of wakefulness in real-life circumstances are needed. Early evidence has indicated that, for example, driving performance on the job. Standardized measures of wakefulness in real-life circumstances are needed. Early evidence has indicated that, for example, driving simulation testing in concert with the MWT adds predictive value in the assessment of real-world safety while driving.

**Comparative Use of the MSLT and MWT**

Generally speaking, the ESS, MSLT, and MWT are not well correlated with one another. Interestingly, Benbadis and colleagues have found that there is no correlation between the MSLT and the ESS, suggesting that subjective measures and objective measures may assess different aspects of EDS. In addition, when looking at a population of individuals with severe OSA respiratory disturbance index $\geq 30$, MSLT appears to be a more sensitive measure of EDS compared to the ESS.

Furthermore, although mean sleep latency has been shown to be a valid measure of increased sleep tendency due to sleep loss, sleep disorders associated with EDS, and the use of sedating medications, the broad range of mean sleep latency complicates the determination of specific cutoffs between normal and abnormal states. The mean sleep latency determined by either the MSLT or MWT does not discriminate well between patients with sleep disorders and healthy persons, partly due to large SDs in these populations.

For both the MSLT and the MWT, there have been no large, multicenter, prospectively collected data to establish normative values, so available data from smaller, more limited studies have been used to describe cutoff values. Methodological differences in these studies, such as different definitions for sleep onset, nap duration, and patient selection, impact the outcomes of these studies. In addition, MSLT data from sleepy subjects demonstrate a “floor effect” (ie, a sleep latency lower than even a very sleepy subject is likely to achieve), and MWT data from healthy subjects may exhibit a “ceiling effect” (ie, many subjects are able to remain awake for the duration of the trial; this effect is reduced in the 40-min MWT). Thus, the data are not normally distributed in healthy subjects. Other difficulties shared by both tests involve adjustments for age, sex, and underlying disease in the interpretation of the data. For example, although both tests are, in practice, used in the evaluation of pediatric patients, there is insufficient evidence to provide age-specific normative data.

**Conclusions**

Chronic sleepiness is a common complaint in the sleep clinic and has important implications for individual health and well-being, workplace safety, and society at large. The MSLT and the MWT have been developed to objectively measure an individual’s ability to fall asleep and to stay awake, respectively, in the laboratory setting. Both tests now have established testing guidelines to assist in the standardization of procedures among different facilities. The MSLT is a reliable tool used in subjects with EDS to evaluate for certain conditions such as narcolepsy. The MWT has been used to evaluate individuals who must remain awake for job safety reasons, such as truck drivers, as well as to evaluate the response to treatment for conditions imparting EDS. In both cases, understanding the results of testing must be undertaken in the context of the patient’s clinical presentation and possible confounding factors. In particular, the MWT may not accurately predict how individuals will perform in real-life circumstances.

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