Sleep and Sleep Disorders

While we often consider sleep to be a "passive" activity, sufficient sleep is increasingly being recognized as an essential aspect of health promotion and chronic disease prevention in the public health community.

Insufficient sleep is associated with a number of chronic diseases and conditions—such as diabetes, cardiovascular disease, obesity, and depression—which threaten our nation's health. Notably, insufficient sleep is associated with the onset of these diseases and also poses important implications for their management and outcome. Moreover, insufficient sleep is responsible for motor vehicle and machinery-related crashes, causing substantial injury and disability each year. In short, drowsy driving can be as dangerous—and preventable—as driving while intoxicated.

More than one-quarter of the U.S. population report occasionally not getting enough sleep, while nearly 10% experience chronic insomnia. However, new methods for assessing and treating sleep disorders bring hope to the millions suffering from insufficient sleep. Fundamental to the success of all of these efforts is the recognition that sufficient sleep is not a luxury—it is a necessity—and should be thought of as a "vital sign" of good health.

Key Sleep Disorders

Sleep-related difficulties affect many people. The following is a description of some of the major sleep disorders. If you, or someone you know, is experiencing any of the following, it is important to receive an evaluation by a healthcare provider or, if necessary, a provider specializing in sleep medicine.

Insomnia

Insomnia is characterized by an inability to initiate or maintain sleep. It may also take the form of *early morning awakening* in which the individual awakens several hours early and is unable to resume sleeping. Difficulty initiating or maintaining sleep may often manifest itself as *excessive daytime sleepiness*, which characteristically results in functional impairment throughout the day. Before arriving at a diagnosis of primary insomnia, the healthcare provider will rule out other potential causes, such as other sleep disorders, side effects of medications, substance abuse, depression, or other previously undetected illness. *Chronic psychophysiological insomnia* (or "learned" or "conditioned" insomnia) may result from a stressor combined with fear of being unable to sleep. Individuals with this condition may sleep better when not in their own beds. Health care providers may treat chronic insomnia with a combination of use of sedative-hypnotic or sedating antidepressant medications, along with behavioral techniques to promote regular sleep.

Narcolepsy

Excessive daytime sleepiness (including episodes of *irresistible sleepiness*) combined with sudden muscle weakness are the hallmark signs of narcolepsy. The sudden muscle weakness seen in narcolepsy may be elicited by strong emotion or surprise. Episodes of narcolepsy have been described as "sleep attacks" and may occur in unusual circumstances, such as walking and other forms of physical activity. The healthcare provider may treat narcolepsy with stimulant medications combined with behavioral interventions, such as regularly scheduled naps, to minimize the potential disruptiveness of narcolepsy on the individual's life.

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Restless Legs Syndrome (RLS)

RLS is characterized by an unpleasant "creeping" sensation, often feeling like it is originating in the lower legs, but often associated with aches and pains throughout the legs. This often causes difficulty initiating sleep and is relieved by movement of the leg, such as walking or kicking. Abnormalities in the neurotransmitter *dopamine* have often been associated with RLS. Healthcare providers often combine a medication to help correct the underlying dopamine abnormality along with a medicine to promote sleep continuity in the treatment of RLS.

Sleep Apnea

Snoring may be more than just an annoying habit – it may be a sign of sleep apnea. Persons with sleep apnea characteristically make periodic gasping or "snorting" noises, during which their sleep is momentarily interrupted. Those with sleep apnea may also experience excessive daytime sleepiness, as their sleep is commonly interrupted and may not feel restorative. Treatment of sleep apnea is dependent on its cause. If other medical problems are present, such as *congestive heart failure* or nasal obstruction, sleep apnea may resolve with treatment of these conditions. Gentle air pressure administered during sleep (typically in the form of a nasal *continuous positive airway pressure* device) may also be effective in the treatment of sleep apnea. As interruption of regular breathing or obstruction of the airway during sleep can pose serious health complications, symptoms of sleep apnea should be taken seriously. Treatment should be sought from a health care provider.

How Much Sleep Do I Need?

Sleep guidelines from the National Sleep foundation below have noted that sleep changes as we age, although there is no 'magic number' as individual sleep needs vary.

NEWBO	DRNS A MARKET STATE OF THE STAT	
(0–2 months)	12-18 hours	
INFAN	VTS	
(3–11 months)	14–15 hours	
TODDI	ERS	
(1–3 years)	12-14 hours	
PRESCHO	OCLERS	
(3–5 years)	11–13 hours	
SCHOOL-AGE	CHILDREN	
(5–10 years)	10–11 hours	
TEEN	VS	
(10–17)	8.5–9.25 hours	
ADUI	LTS	
	7–9 hours	

(Taken from the National Sleep Foundation Web site.)

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SLEEP DISORDERS CENTER SELF SCREENING QUESTIONNAIRE

Carlisle Regional Sleep Disorders Centers

1533 Commerce Ave .St # 3 Carlisle, PA 17015

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Date:	Name:		
Address:		Email:	
City, State, Zip:		10 1644 II 10 10 10 10 10 10 10 10 10 10 10 10 10	
Phone: Home:	Work:	Cell:	

A good night's sleep is important to your well-being. Because most people spend roughly one-third of their lives asleep, it is easy to see how the quality of sleep directly affects ones quality of life.

One out of three Americans has a sleep disorder, which makes sleeping or waking hours miserable. Many of these people suffer needlessly simply because they are unaware that a problem exists.

Once detected, most sleep disorders can be corrected. This simple screening test is designed to alert you to any problems resulting from poor-quality sleep. If you have experienced any of the listed symptoms in the last year, check the box beside the number. Follow the self-scoring guidelines below, and call our center if you have questions.

PLEASE TURN THE FORM OVER AND TAKE THE SCREENING TEST NOW. WHEN FINISHED, PLEASE SELF-SCORE USING THE GUIDELINES LISTED.

How to score yourself:

Questions 1 through 8 – If you marked three or more, you show symptoms of *Insomnia*, a persistent inability to fall asleep or stay asleep.

Questions 9 through 21 – If you marked three or more, you show sign of *Sleep Apnea*, a life-threatening disorder which causes you to stop breathing repeatedly during your sleep, often several hundred times per night.

Question 22 through 35 – If you marked three or more, you show signs of *Narcolepsy*, a lifelong disorder characterized by uncontrollable sleep attacks during the day.

Questions 36 through 42 – If you marked three or more, you show symptoms of Gastro esophageal reflux, a disorder caused when acid from the stomach "backs-up" into the esophagus during the night.

Questions 43 through 50 – If you marked three or more, you show symptoms of *Nocturnal Myoclonus*, (restless leg syndrome), a disorder characterized by pain or "crawling" sensations in the legs.

This screening test informs you of symptoms that are similar to those individuals with documented sleep disorders. It is intended as a general source of information and does not contain medical advice. It should not be used for self-diagnosis or treatment. Only a thorough sleep study (polysomnogram) can determine if you have a sleep disorder. Please speak with your family Physician or call the Sleep Disorders Center with any questions.

CARLISLE REGIONAL SLEEP DISORDERS CENTER

SLEEP QUESTIONNAIRE

If you have experienced any of the listed symptoms in the past year, check the box beside the number.

1. I have difficulty falling asleep.	27. I have fallen asleep during physical effort
2. Thoughts race through my mind, preventing me	28. I feel as if I am hallucinating when I fall from
sleeping	asleep
3. I am afraid to go to sleep.	29. I feel as if I have to cram a full day into
4. I wake up during the night and can't go back	every hour to get anything done.
to sleep	30. I have fallen asleep when laughing or crying.
5. I worry about things and have trouble relaxing	31. I have trouble at work because of sleepiness.
6. I wake up earlier than I would like to.	32. I have vivid nightmares soon after falling
7. I lie awake for half an hour or more before	asleep.
falling asleep.	33. I fall asleep during the day.
8. I feel sad and depressed.	34. No matter how hard I try to stay awake, I
9. I've been told that I snore.	fall asleep.
10. I've been told that I stop breathing while I	35. I feel unable to move when waking up or
sleep, although I don't remember this when I	falling asleep.
wake up.	36. I wake up with heartburn.
11. I have high blood pressure	37. I have a chronic cough.
12. My friends and family say they have noticed	38. I have to use antacids almost every week for
changes in my personality.	stomach trouble.
13. I am gaining weight.	39. I have morning hoarseness.
14. I sweat excessively at night.	40. I wake up at night coughing or wheezing.
15. I have noticed my heart pounding or beating	41. I have frequent sore throats.
irregularly at night.	42. I suddenly wake-up gasping for breath.
16. I get morning headaches.	43. Other than when exercising, I still have
17. I have trouble sleeping when I have a cold.	muscle tension in my legs.
18. I suddenly wake up gasping for air.	44. I have noticed (or others have commented)
19. I am overweight.	that parts of my body jerked.
20. I seem to be losing my sex drive.	45. I have been told I kick at night.
21. I feel sleepy during the day, even if I slept	46. I have aching or "crawling" sensations in
through the night.	my legs.
22. I have had trouble concentrating in school.	47. I have leg pain during the night.
23. When I am angry or surprised, I feel as if	48. Sometimes I just have to move my legs at
I'm going limp.	night-I can't keep them still.
24. I have fallen asleep while driving.	49. I wake up with sore or achy muscles
25. I feel as if I go around in a daze.	50. Even though I slept through the night, I still
26. I have experienced vivid dream-like scenes	feel sleepy during the day.
upon falling asleep or waking.	