

OREGON PUBLIC HEALTH DIVISION • DEPARTMENT OF HUMAN SERVICES

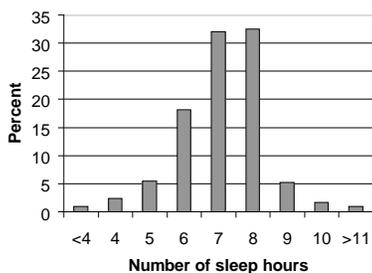
YOU SNOOZE, YOU WIN!

Everyone knows early to bed and early to rise makes you healthy, wealthy and wise. But did you know that adequate snoozing might also reduce obesity, diabetes, heart disease, depression, and other illnesses?<sup>1</sup> Read on and we'll convince you that sleep is not just for the dead.

**SLEEPLESS IN OREGON**

The National Sleep Foundation recommends that adults get 7–9 hours of sleep per night.\* However, 26% of Oregonians average ≤6 hours per night.† And 20% report inadequate sleep half or more nights during the previous month (Figure). Moreover, Oregonians who report getting ≤6 hours of sleep are more likely to be overweight and current smokers, and less likely to report good overall health and adequate exercise (Table 1). Other studies found significant associations between sleep and mental health issues, heart disease, diabetes and heavy alcohol use.<sup>1</sup>

Average Nightly Sleep During Past 30 Days, 2008



**PULL OVER!**

Of course insufficient sleep not only causes slow painful demises but sudden unexpected ones too. Some investigators have concluded that driving while drowsy can be just as dangerous as driving while intoxicated.<sup>2</sup> The National Highway Transportation Safety Administration, reports that 1,550 deaths and 40,000 non-fatal

Table 1. Health Factors by Levels of Sleep per Night—Oregon, 2008

Health Factor	Prevalence of health outcome among people reporting .....		Relative prevalence (95% CI)
	Insufficient sleep (%) *	Recommended sleep (%) *	
Obese (BMI ≥30)	30	21	1.5 (1.2–1.8)
Poor overall health	20	9	2.1 (1.7–2.7)
Smoker	25	15	1.7 (1.3–2.2)
Inadequate exercise	22	16	1.4 (1.1–1.7)
Heart disease or diabetes	12	9	1.3 (1.0–1.7)

\* Insufficient sleep: ≤6 hrs/night. Recommended sleep: >6 hrs/night

injuries are caused by drowsy-driving crashes each year.<sup>3</sup> Oregon has its share of sleepy drivers: 45% of Oregonians reported driving while feeling drowsy at least once in the past year; 14% drive while drowsy at least once a month; and 7% reported driving while drowsy once or more every week.\*

**SLEEP LOSS PRIMER FOR CLINICIANS**

Sleep loss can be caused by lifestyle or occupational causes (*Exempli gratia*, shift work, prolonged working hours, jet lag, irregular sleep schedules) or sleep disorders. Sleep loss due to lifestyle or occupational causes can be treated by...more sleep, or by daytime naps not exceeding two hours. (*Nota bene*, catching up on sleep on the weekends does not return individuals to baseline functioning.) If schedules cannot be manipulated to extend sleep time, the National Sleep Foundation offers some tips on shift work and sleep.†

Sleep loss due to sleep disorders is a wee bit more complex. About 90 distinct sleep disorders have been described. At least one of the following three symptoms characterize almost all of them.<sup>4</sup>

- excessive daytime sleepiness;
- difficulty initiating/maintaining sleep;
- abnormal movements, behaviors, and sensations occurring during sleep.

Table 2 (*verso*) summarizes the most important sleep disorders resulting in sleep loss, their prevalence, common causes, diagnosis and treatment.

**DOCTORS NEED SLEEP, TOO**

We venture to guess, Dear Reader, that you've personally experienced fatigue and sleep deprivation on the job at some point during your career. Health care workers, especially resident physicians traditionally work more hours than those in other industries where mistakes might have catastrophic consequences, like the nuclear power industry for example. Resident physicians who work more than 24 hours are 73% more likely to jab themselves with a needle, and 168% more likely to crash while driving home.<sup>5</sup> Twenty percent of pediatric residents on intensive schedules screened positive for clinical depression and 74% experienced mental exhaustion. To the chagrin of those of us *who really had it tough* (but perhaps not our patients) regulations mandating adequate away-from-the-hospital R & R have become much more commonplace during the past two decades.

If one's work schedule doesn't necessarily accommodate adequate sleep, what about naps? It turns out fragmented sleep is not as restorative as continuous sleep, but some sleep, even a short nap, is better than none.<sup>5</sup> So, next time you feel tired or sleepy

\* [www.sleepfoundation.org](http://www.sleepfoundation.org)

† Behavioral Risk Factor Surveillance System, Oregon, 2008

‡ [www.sleepfoundation.org/article/sleep-topics/shift-work-and-sleep](http://www.sleepfoundation.org/article/sleep-topics/shift-work-and-sleep).



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on the job, during your break period consider taking a short nap instead of reaching for another cup of joe. Your health and your patients will appreciate it!

**REFERENCES:**

1. Schoenborn CA, Adams PF. Sleep duration as a correlate of smoking, alcohol use, leisure-time physical inactivity, and obesity among adults: United States, 2004–2006. Available at [www.cdc.gov/nchs/data/hestat/sleep04-06.pdf](http://www.cdc.gov/nchs/data/hestat/sleep04-06.pdf). Accessed December 29, 2009.

2. Dement WC. The perils of drowsy driving. *N Engl J Med* 1997;337:783–4.
3. National Highway Traffic Safety Administration. Drowsy driving and automobile crashes. Available at: [www.nhtsa.dot.gov/people/injury/drowsy\\_driving1/Drowsy.html](http://www.nhtsa.dot.gov/people/injury/drowsy_driving1/Drowsy.html). Accessed December 29, 2009.
4. Committee on Sleep Medicine and Research. Board on Health Science Policy. Extent and

health consequences of chronic sleep loss and sleep disorders. In *Sleep Disorders and Sleep Deprivation: An Unmet Public Health Problem*. Harvey R. Colten and Bruce M. Altevogt, Editors. Institute of Medicine of the National Academies. 2006. The National Academies Press. Washington, DC.

5. Gaba DM, Howard SK. Patient safety: Fatigue among clinicians and the safety of patients. *N Engl J Med* 2002;347:1249–55.

**Table 2. Sleep Cheat Sheet**

Disorder	Prevalance	Risk Fctors	Diagnosis/Defining Systems	Treatment
Sleep-disordered breathing (e.g., sleep apnea)	2 to 4% in middle age.	Obesity; family history; male gender; alcohol; cranial-facial abnormalities; enlarged tonsils; race; autonomic disorders.	Polysomnography: ≥5 apneas or hypopneas/hour.	CPAP; weight loss; dental appliances; surgery; acetazolamide; tonsillectomy.
Chronic insomnia	>10% adults	Female gender; age; family history; stressful lifestyle, medical and psychiatric disorders; shift work.	Difficulty falling asleep, maintaining sleep, or short sleep duration, despite adequate opportunity with impairment in social, occupational, other areas.	Stimulus control therapy; sleep restriction therapy; relaxation training; cognitive therapy; sleep hygiene education; benzodiazepine and non-benzodiazeping hypnotics.
Restless legs syndrome	>5%	Age; pregnancy; iron deficiency.	Irresistible urge to move the legs (or sometimes arms, trunk, or head/neck)with paresthesias. Relieved by movement.	Maintain consistent sleep pattern; minimize alcohol, caffeine and tobacco; iron supplementation; levodopa; benzodiazepines; opioids; anticonvulsants.
Periodic limb movement disorder	Uncommon cause of sleep loss.	Age, depression, memory impairment, attention deficits, oppositional behaviors, and fatigue.	Periodic limb movements during sleep. Periodic limb movements index score >4 in children and >14 in adults.	
Parasomnias	Common	Age (several inversely related to age); post-traumatic stress disorder; family history.	REM sleep associated (nightmare disorder, REM sleep behavior disorder, recurrent isolated sleep paralysis); NREM sleep-associated (confusional arousals, sleepwalking, sleep terrors); or “other” (enuresis, nocturnal groaning, sleep-related eating disorder, sleep related dissociative disorders, exploding head syndrome, sleep related hallucinations)..	Depends on the specific parasomnia.
Sleep-related psychiatric disorders	Very common	Major depression, generalized anxiety disorder, alcohol and drug abuse; nicotine addiction.	Same as chronic insomnia in addition to a psychiatric diagnosis.	Treat the psychiatric disorder with behavioral and/or pharmacologic therapy then reassess the sleep..
Sleep-related neurologic disorders	Common	Dementia, parkinson’s disease, epilepsy, stroke.	Same as for chronic insomnia in addition to a neurologic disease.	Depends on the neurologic disorder.