

Sleep Problems and Disorders

	Insomnia	Snoring	Sleep Apnea
Definitions & Symptoms	<p>Characterized by complaints of inadequate quality/quantity of sleep.</p> <p>Symptoms may be acute/short-term or chronic (>1 month) and include:</p> <ul style="list-style-type: none"> • Difficulty falling asleep • Frequent awakenings • Waking too early and cannot get back to sleep • Unrefreshed/Non-restorative sleep <p>For some, it may be a disorder of arousal</p>	<p>Tissue vibration in a partially obstructed airway that can result in abnormal breathing and sleep disruptions.</p> <p>Symptoms include:</p> <ul style="list-style-type: none"> • Abnormal breathing • Noises made while sleeping • Frequent awakenings • Disturbance to bed partner 	<p>Serious disorder with breathing disruptions during sleep and frequent awakenings.</p> <p>Symptoms include:</p> <ul style="list-style-type: none"> • Loud snoring • Pauses in breathing • Gasps for breath and arousals during sleep • Concerned bed partners • Daytime sleepiness
Causes	<ul style="list-style-type: none"> • Acute: stress, unusual pressures, worry due to a change in one's life • Chronic: medical, physical (e.g. discomfort), psychiatric (e.g. depression) or environmental conditions (e.g. noise, light, temperature) • Primary: chronic and no associated underlying medical or psychiatric condition; can be a disorder of arousal 	<ul style="list-style-type: none"> • Physical or medical condition • Narrow airway due to obesity or structural abnormalities • Obstructed nasal airways (cold, hay fever) • Exaggerated by alcohol or drugs that cause sleepiness 	<ul style="list-style-type: none"> • Physical abnormalities, poor muscle tone in the upper airway • Obesity • Exaggerated by alcohol or drugs that cause sleepiness
Prevalence/Effects	<ul style="list-style-type: none"> • 40% of Americans • 10-15% 3 nights/wk • Most at risk: women, older persons and those who are depressed • Impacts health, performance, and quality of life 	<ul style="list-style-type: none"> • 37% at least a few nights a week • Men > Women; often increases with age • Large neck size • Impacts health, performance, and quality of life 	<ul style="list-style-type: none"> • 4% of men and 2% of middle-aged women • Those who snore loudly, are overweight, have large neck size, smoke or have high blood pressure • Lowers blood-oxygen levels, puts a strain on the heart; associated with cardiovascular problems and daytime sleepiness
Treatment Options	<ul style="list-style-type: none"> • Prescription Medication (e.g. hypnotics) • Behavioral Management <ul style="list-style-type: none"> - Stimulus/Response - Sleep Restriction - Cognitive Behavioral Therapy - Relaxation Training • Combination of both 	<ul style="list-style-type: none"> • Healthy lifestyle: avoid alcohol, stop smoking, lose weight, tone muscles • Sleeping on your side may help • Dental appliances • Surgery 	<ul style="list-style-type: none"> • Healthy lifestyle: avoid alcohol, stop smoking, lose weight, tone muscles • Mechanical Devices <ul style="list-style-type: none"> - Continuous Positive Airway Pressure masks • Dental appliances • Surgeries

	Restless Legs Syndrome (RLS)	Narcolepsy	Parasomnias
Definitions & Symptoms	<p><i>Neurological movement disorder with unpleasant sensations/nervousness in legs and an urge to move during inactivity and sleep; (80% may have involuntary jerking of limbs).</i></p> <p>Symptoms include:</p> <ul style="list-style-type: none"> • Urge to move limbs during sleep • Difficulty sleeping • Daytime sleepiness 	<p><i>Chronic neurological disorder with involuntary, excessive daytime sleepiness.</i></p> <p>Symptoms include:</p> <ul style="list-style-type: none"> • Excessive daytime sleepiness • Cataplexy (lack of muscle tone in response to strong emotion) • Sleep paralysis • Hallucinations/vivid or scary dreams 	<p><i>Disorders of arousal during sleep, resulting in unusual behaviors during the night.</i></p> <p>Symptoms depend on type of parasomnia, including:</p> <ul style="list-style-type: none"> • Confusional arousals • Sleep terrors • Nightmares • Sleepwalking • Sleep eating disorder • REM behavior disorder • Head-banging • Enuresis (bedwetting)
Causes	<ul style="list-style-type: none"> • Primary RLS can be genetic • Secondary RLS may be accompanied by other conditions (e.g. iron deficiency, pregnancy) or other medical disorders • Increased severity from use of caffeine or antidepressants 	<ul style="list-style-type: none"> • Lack of brain produced chemical hypocretin • May be related to auto-immune deficiencies or alterations 	<ul style="list-style-type: none"> • Varies with type of parasomnia • Can be due to sleep deprivation, medication, anxiety, emotional stress • May be symptom of another condition, such as sleep apnea, epilepsy, neurological disorder, metabolic or endocrine disorder
Prevalence/Effects	<ul style="list-style-type: none"> • 2-15% of the population • Increasingly common as we age • Can occur over a period of years with increasing severity or periods of remission • Difficulty sleeping and daytime fatigue 	<ul style="list-style-type: none"> • 1 in 2000 people; often detected in second decade of life • Can significantly impair active life, and productivity; possibly leading to injuries 	<ul style="list-style-type: none"> • Most common in children, but can affect any age • Can cause fatigue; disturbances to sleeping partner; need to secure sleeping environment to prevent injury; psychological effects, especially for bedwetting or sleep eating disorder
Treatment Options	<ul style="list-style-type: none"> • Healthy lifestyle including exercise • Medications, physical and other modalities • Behavioral therapy including relaxation 	<ul style="list-style-type: none"> • Medications and lifestyle changes 	<ul style="list-style-type: none"> • Medications • Behavioral therapy • Treatment of underlying medical condition • Often outgrown with age

Sources: National Institutes of Health, National Heart, Lung and Blood Institute, National Center on Sleep Disorders Research. 2003 National Sleep Disorders Research Plan. NIH Publication No. 03-5209. July 2003; National Center on Sleep Disorders Research. Facts about Sleep Apnea; National Institutes of Health, National Heart, Lung, and Blood Institute. National Center on Sleep Disorders Research and Office of Prevention, Education and Control. Restless Legs Syndrome Detection and Management in Primary Care; National Sleep Foundation 2002 Sleep in America poll.