The Institute of Medicine estimates that 50-70 million Americans chronically suffer from a sleep disorder. Sleep disorders can have a substantial impact in reducing quality of life, increasing the risk of other health problems such as heart disease and diabetes, and even reducing lifespan.

Sleep disorders are costly. They can increase health care costs and reduce productivity. It has been estimated that the economic cost of one undiagnosed sleep disorder, obstructive sleep apnea, is approximately $150 billion per year in higher health care costs, motor vehicle crashes and reduced productivity. Similar cost estimates for insomnia range from $30 billion to over $100 billion annually. Appropriate treatment of sleep disorders can improve symptoms and substantially reduce these costs. Recognizing and addressing sleep disorders is an economic and health imperative.

### Common sleep disorders

#### Obstructive Sleep Apnea

Obstructive sleep apnea (OSA) occurs when a person’s airway becomes partially or completely blocked many times during sleep. An individual must wake up to reopen the airway multiple times, resulting in poor quality of sleep. OSA sufferers are often unaware of their disorder because they do not gain full consciousness when they wake after episodes of not breathing. Individuals with OSA are at risk for drowsy driving crashes, heart attacks, strokes, high blood pressure, diabetes and increased risk of death. OSA is common, occurring in 34% of men and 17% of women in one study.

### Common Symptoms of Obstructive Sleep Apnea

- Loud snoring
- Excessive sleepiness and/or fatigue
- Episodes witnessed by bed partner

### Risk Factors for Obstructive Sleep Apnea

- Excessive weight (most important risk factor)
- Large neck
- Long and thick soft palate
- Large tongue
- Large tonsils
- Family history of OSA
- Male gender

### Treatment of Obstructive Sleep Apnea

- Continuous positive airway pressure (CPAP) is the first line of treatment for moderate to severe cases of OSA. The CPAP device keeps the airway open by sending a constant, low-pressure stream of air through the nose and into the airway.
- Other options: dental devices, surgery, weight loss and avoidance of sleeping on one’s back
Insomnia

Although everyone has had an occasional night of poor sleep, chronic insomnia is the recurring experience of not being able to fall asleep, waking up frequently after falling asleep or the inability to fall back to sleep resulting in a reduction in daytime performance. Insomniacs feel unrefreshed upon awakening, tired during the day and have diminished mental and physical performance. Additionally, they are at increased risk for depression, other medical conditions and even a decreased life span. Approximately 10% of Americans suffer from chronic insomnia.

Causes of Chronic Insomnia

- Poor sleep habits, such as an overstimulating bedtime routine, or consuming too much alcohol or caffeine near bedtime
- Prescription and over-the-counter medications such as antidepressants, steroids, allergy and cold products
- Psychiatric or medical conditions such as anxiety, depression, arthritis or asthma
- Primary insomnia: no clear environmental, psychiatric or medical cause can be identified

Treatment of Chronic Insomnia

- Cognitive behavioral therapy: Addressing behavioral practices to improve sleep and promoting good sleep hygiene
- Alternative therapy: hypnotic medications

Restless Legs Syndrome

Restless legs syndrome (RLS) is a condition where sufferers experience uncomfortable sensations in their legs at night when they are attempting to fall asleep. The discomfort is improved by movement of the legs. In severe cases, the symptoms will be present during the day when sitting. It may also may involve the arms. RLS occurs in approximately 10% of the population.

Risk Factors for Restless Legs Syndrome

- Iron deficiency
- Pregnancy
- Family history of RLS
- Kidney failure requiring dialysis

Treatment of Restless Legs Syndrome

- Medications

Shift Work Disorder

Shift work disorder (SWD) occurs when a person's body clock becomes misaligned with his or her sleep/wake schedule because of shiftwork. Symptoms of SWD include excessive sleepiness during night work and/or insomnia during daytime sleep. Both of these symptoms have both been associated with workplace injuries, incidents and errors. The World Health Organization has classified shiftwork as a carcinogen because of the increased risk of breast cancer. Risk for SWD is higher with frequent overnight shifts or a rotating shift schedule. The only treatment for SWD is avoidance of overnight or rotating shifts, but strategies can be employed to mitigate some of the symptoms.