

# Obstructive Sleep Apnea (OSA)

## Symptoms & Risk Factors

### Impaired Cognitive Functioning

Depression  
Difficulty Concentrating  
Forgetfulness  
Frequent Nighttime Awakenings  
Irritability & Moodiness  
Impaired Memory  
Morning Headaches

### Cardiovascular

Angina (30%)  
Arrhythmias (50-75%)  
Atrial Fibrillation (50%)  
Congestive Heart Failure (76%)  
Coronary Artery Disease (30%)  
Drug Resistant Hypertension (83%)  
Hypertension (37%)  
Stroke (63%)

### Altered Blood Oxygenation

Hypercapnia (High levels of CO<sub>2</sub>)  
Hypoxia (Low O<sub>2</sub> levels in tissue)

### Sympathetic Response (SNS)

Increased Blood Pressure  
Increased Cardiac Output  
Tachycardia (fast heart rate)

### Type 2 Diabetes (48%)

Glucose Intolerance  
Insulin Resistance

### Nocturia

(Frequent bathroom breaks at night)

### Fibromyalgia

### Increased Cancer Risk

(Severe Sleep Apnea)

**Increased Risk of Vehicle Accidents (2-7X)**

### Excessive Daytime Sleepiness

### Crowded Oropharynx

Micrognathia/Retrognathia  
Nasal Obstruction

### Loud Chronic Snoring

Choking & Pauses in Breathing  
Dry Throat when Awakening  
Witnessed Apneas

### Nighttime GERD Reflux

### Large Neck Circumference

(16" F, 17" M)

### Overweight/Obese

(BMI 25-29) (BMI 30)

### Social & Marital Problems

High Rates of Divorce  
Separate Sleeping  
Arrangements

### Reduced Libido

Erectile Dysfunction  
Increased Sexual Dysfunction

### Restless Sleep

Heavy Nighttime Sweating  
Kicking & Twitching During Sleep  
Messy Bed Sheets

### OSA Prevalence

1 in 5 Adults  
9% of 30-60 Year Old Woman  
24% of 30-60 Year Old Men  
28.1% of Commercial Drivers

