

HEART
CONDITIONS
ASSOCIATED
WITH SLEEP
RELATED
BREATHING
DISORDERS

- Hypertension
- Coronary
   Artery Disease
- Congestive Heart Failure
- Stroke

## SYMPTOMS OF OBSTRUCTIVE SLEEP APNEA

- Loud Snoring
- Gasping or choking during sleep
- Witnessed pauses in breathing while asleep
- Excessive daytime sleepiness
- Falling asleep while driving
- Irritability, depression, or trouble concentrating,

# Sleep and Heart Disease

While some aspects of the relationship have not been clarified, there is <u>definitely</u> a direct correlation between sleep, sleep disorders, and heart disease. Any time you wake up from sleep, even if it is momentary, your heart rate and blood pressure climb, forcing your heart to exert more energy. Many doctors believe that it is this extra workload that causes an increased risk of sudden cardiac death just after awakening. Research studies routinely suggest that sleep-disordered breathing cause high blood pressure, as well as increased risk of heart disease and stroke.

### **Hypertension**

Obstructive Sleep Apnea (OSA) has been proven to lead directly to high blood pressure. The repeated episodes of ceased or shallow breathing cause a drop in oxygen, and the brain is aroused over and over again. As previously mentioned, every time a person is awakened, the heart is forced to pump harder. The combination of continuous loss of oxygen and increased heart rate and blood pressure can eventually lead to a permanent increase in blood pressure.

#### Coronary Artery Disease

The events that occur during OSA put excessive stress on the heart. In people with CAD, blood flow is restricted due to blockage in the arteries, so oxygen is also limited because it is transported in the blood. This situation is worsened by the drops in oxygen level caused by not breathing. People who have heart attacks are more likely to have OSA, and research has shown that if OSA is present, there is a higher risk of death from CAD.

#### Congestive Heart Failure

Sleep-related breathing disorders can be both the cause and the effect of CHF. There are studies that show that OSA is a significant risk factor for the development of heart failure. Also, about 40% of the people w ho have CHF also have what is known as Central Sleep Apnea (CSA). This type of irregular breathing also causes drops in oxygen levels and constant arousals throughout the night. The extra workload worsens the CHF, causing a vicious cycle to begin. Treatment of the CSA will improve heart function as we as sleep quality.

#### Stroke

Hypertension is the leading cause of stroke, and as mentioned above, it is directly linked with OSA. Also, strokes occur when oxygen is reduced or cut-off to the brain, so it is believed that OSA may directly lead to this. Other affects from OSA, such as excessive sleepiness may inhibit a person's recovery after a stroke.

Good quality sleep is very important in maintaining a healthy heart.

If you know that you have any cardiovascular condition, it is especially important to watch for signs of OSA and CSA, as they may significantly worsen your condition.