

# **SLEEP APNEA AND HEART FAILURE**

# **DEFINITION OF OBSTRUCTIVE SLEEP APNEA (OSA)**

- OSA is a serious, potentially life-altering breathing disorder that occurs during sleep, and that may lead to life-threatening conditions.
- The upper airway repeatedly collapses, causing cessation of breathing (apnea) or inadequate breathing (hypopnea) and sleep fragmentation.
- Sleep fragmentation results in chronic daytime sleepiness.

#### **PREVALENCE**

- Patients with impaired cardiac function may suffer from sleep-related breathing disorders.
- 4% of men and 2% of women aged 30-60 (an estimated 20 million people) meet minimal diagnostic criteria for OSA with excessive daytime sleepiness. An even greater number of people have subclinical apnea/hypopnea during sleep.
- The majority of OSA sufferers remain undiagnosed and untreated.

### POTENTIAL CONSEQUENCES IF OSA IS LEFT UNTREATED

- · Decreased quality of life
- OSA patients, prior to diagnosis and treatment, consume 2 1/2 times more health care resources than patients without OSA.
- Hypertension
- · Cardiac arrhythmias
- Myocardial ischemia
- Myocardial infarction
- Stroke
- Increased risk of motor vehicle and work-related accidents due to sleepiness



# **NORMAL BREATHING**

- Airway is open
- Air flows freely to lungs



# **OBSTRUCTIVE SLEEP APNEA**

- Airway collapses
- · Air flow is blocked

# SIGNS AND SYMPTOMS OF OSA

If a patient has two or more of the following signs and symptoms, it may be an indication of unidentified OSA.

# **CHECK THE FOLLOWING THAT APPLY:**

Snoring, interrupted by pauses in breathing (apnea)
Excessive daytime sleepiness
Gasping or choking during sleep
Restless sleep
Intellectual deterioration
Poor judgement/concentration
Irritability
Hypertension
Nocturnal angina

Large neck/girth

Depression

Obesity

Oropharyngeal crowding

Nocturia or frequent urination at night

(>17" in men, >16" in women)

Morning headaches

# SLEEP APNEA AND HEART FAILURE

#### **IDENTIFICATION**

Ask your patients the following questions about their sleep. If two or more answers are positive, your patient should be evaluated for OSA.

- Are you sleepy during the day?
- Do you have disruptive snoring at night?
- Do you have pauses in breathing during the night?
- · Do you wake yourself up choking or gasping?

#### **DIAGNOSIS**

If a patient's signs and symptoms indicate the possibility of sleep apnea, evaluation by a physician specializing in sleep disorders is recommended. A sleep study is a painless test that provides information about how a patient breathes during sleep. The data that is collected will enable the physician to determine the type and severity of sleep apnea and treatment options.

# INTERVENTION

#### **Primary**

Positive Airway Pressure (PAP) therapy is the treatment of choice for Obstructive Sleep Apnea. This therapy may include Continuous Positive Airway Pressure (CPAP), automatic CPAP, or bi-level positive airway pressure.

#### Secondary

Less common treatments include surgery, body position modification, and oral appliances, which may be effective in certain individuals.

#### Overal

Any intervention should include lifestyle changes such as weight loss (if needed), good sleep hygiene, and avoidance of alcohol, sedatives and hypnotics.

# **IMPACT OF PAP THERAPY**

PAP treats Obstructive Sleep Apnea by providing a gentle flow of positive pressure air via a mask. The positive pressure air splints the airway open during sleep to prevent airway collapse. This results in:

- Elimination of snoring and abnormal breathing events
- Absence of daytime sleepiness or fatigue
- Improved quality of life
- Decreased risk of developing common life-threatening conditions often associated with untreated OSA

OBSTRUCTIVE SLEEP APNEA IS A SERIOUS, POTENTIALLY LIFE-ALTERING HEALTH ISSUE THAT MAY LEAD TO LIFE-THREATENING CONDITIONS. IT IS EASILY IDENTIFIED AND CAN BE EFFECTIVELY TREATED.



#### **OBSTRUCTIVE SLEEP APNEA**

- Airway collapses
- Air flow is blocked



**CPAP THERAPY** 

- Airway splinted open
- Air flows freely to lungs



CPAP is safe and effective therapy for OSA.



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