

## FULL-SERVICE LAB

The Sleep Disorder Center at Hamilton Medical Center is fully equipped to educate, diagnose and treat sleep disorders. A sleep study is useful in uncovering hidden health issues such as:

- Obstructive Sleep Apnea
- Narcolepsy
- Periodic Limb Movements
- Restless Legs Syndrome
- REM Behavior Disorder
- Sleepwalking and Other Disturbances

## HOW TO GET HELP

Your family physician can refer you for sleep testing or for a consultation with a sleep specialist that has training in sleep disorders medicine. This physician can diagnose sleep disorders as well as prescribe a treatment plan.

A sleep study is considered an outpatient procedure. Please check with your current insurance carrier for the specific coverage information. Hamilton Medical Center Sleep Disorders Center is available to assist you with any questions you or your insurance carrier may have. A separate charge is billed from the physician for diagnosis treatment and sleep study interpretation fees.

If you or someone you know suffers from a sleep-related disorder, please call the Sleep Disorder Center at **706-278-4757** for more information.

# OBSTRUCTIVE SLEEP APNEA



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### OBSTRUCTIVE SLEEP APNEA

Obstructive sleep apnea (OSA) is caused by the closing of the upper airway while asleep. The uvula and soft pallet collapses on the back wall of the upper airway. Then the tongue falls backward, collapsing on the back wall of the upper airway, the uvula and soft pallet forming a tight blockage, preventing any air from entering the lungs. The effort of the diaphragm, the chest and the abdomen only cause the blockage to seal tighter. In order to breathe, the person must arouse or awaken, causing tension in the tongue, thereby opening the airway, allowing air to pass into the lungs.

OSA causes a drop in one's blood oxygen saturation (SaO<sub>2</sub>) and an increase in the blood's carbon dioxide (CO<sub>2</sub>). When the SaO<sub>2</sub> drops, the heart will start pumping more blood with each beat. If the SaO<sub>2</sub> continues to drop, the heart will start beating faster and faster. As the CO<sub>2</sub> increases, the brain will try to drive the person to breathe. The effort and action of the abdomen and chest will increase. Eventually that action can become severe enough to cause an arousal, clearing the upper airway blockage, allowing the person to breathe. Then he or she will go back to sleep and it happens all over again.



### SNORING

Most prominent symptoms are snoring, not breathing while asleep, excessive daytime sleepiness and obesity. Other symptoms include lack of concentration, forgetfulness, irritable, anxiety, depression, mood and/or behavioral changes, morning headaches, disoriented at awakening and loss of sexual interest.

### CONTINUOUS POSITIVE AIRWAY PRESSURE

Continuous Positive Airway Pressure (CPAP) appears to be the best and most effective treatment for OSA. CPAP flow generators develop a constant, controllable pressure to keep your upper airway open so that you can breathe normally. CPAP is effective on 95% of patients with OSA. The units are reliable, quiet, and efficient and come in a variety of sizes and shapes.

Controlled pressure is delivered through the nasal passage, holding the soft tissue of the uvula and soft palate and the soft pharyngeal tissue in the upper airway in position so the airway remains open while you descend into the deeper stages of sleep and REM sleep. The pressure acts much in the same way as a splint, holding the airway open.

### DIAGNOSIS

Diagnosis is made by a physician specially trained in sleep medicine. After a physical examination of the upper airway and an interview with lots of questions, if it is determined that you might have a sleep disorder, you will be asked to take a polysomnogram (sleep test).

Tests are conducted in a sleep room much like a motel and or hospital room. A technician will paste electrodes at certain points on your head, face, body and legs. Those electrodes will be hooked to monitoring equipment that will record the entire night study. Most patients do not experience anxiety or difficulty in going to sleep. They are extremely sleepy and will be asleep in just a few minutes.

At the conclusion of the test, your primary care physician will usually recommend a second sleep test to determine if your sleep disorder can be treated with Continuous Positive Airway Pressure (CPAP). You will be fitted with a CPAP breathing circuit, hooked up with the electrodes and put back in bed. While you are asleep the technician will adjust the CPAP pressure trying to eliminate all OSA and snoring.