## Sleep Interrupted

Surprisingly common, nighttime sleep apnea can cause serious long-term health problems

BY MARIA BLACKBURN

Ramsey Flynn has struggled with insomnia since childhood. As a weatherman in the Air Force, he relished working the overnight shift and once went five days without sleep. For the last few decades he has regularly awakened in the middle of the night to write for a few hours. "Night became a great time for me to sort through issues and work out problems," the 53-year-old journalist says. When anyone would question his irregular sleep habits, Flynn would respond by joking, "Real men don't need sleep."

But more recently, Flynn started to realize that sleep was no longer a laughing matter. Every afternoon he grew so tired that he felt like he was in a fog. And his snoring was so loud that his wife and teenage boys told him it sounded "almost supernatural."

In spring 2008, Flynn went for a sleep study at the Johns Hopkins Sleep Disorders Center in Baltimore. There, he slept overnight in a lab, as sensors collected data including his heart and breathing rate, oxygen levels, duration and depth of sleep and the number of times he awoke during the night. He expected to be told that insomnia was



the culprit. Instead Flynn was diagnosed with obstructive sleep apnea.

At night while he slept the muscles in the back of his throat relaxed to the point that they obstructed his airway—blocking the passage of air. This occurred multiple times throughout the night. Not only was sleep apnea making Flynn's sleep quality terrible, it could have lasting effects.

"The denial of oxygen could last for long periods," says Flynn. "In the short term, obstructive sleep apnea has been linked to memory loss. Over time it has been deemed to cause brain damage."

That's not all. A recent study published in the *American Journal of Respiratory and Critical Care Medicine* found that obstructive sleep apnea more than doubled the risk of stroke in men and increased the danger of stroke in women. Previous studies have linked sleep apnea to a wide range of health

problems including cardiovascular disease, hypertension and diabetes. Apnea affects 10 to 20 percent of adults, an estimated 12 million Americans. It can occur in both children and adults, but is more common in men and in people who are overweight.

Many people with sleep apnea—as many as 90 percent—don't even realize they have it.

"Most people with sleep apnea are unaware of what they are doing at night," explains Dr. Nancy Collop, a pulmonologist who directs the Johns Hopkins Sleep Disorders Center. "Sometimes they will wake up because they are snoring. Really what they notice is that they don't sleep well and they aren't sure why. The reason for this is that by the time they are actually conscious and awake, the problem is gone. Many of the people we see who end up being diagnosed with apnea come in because their bed partner brings them in."

There are two kinds of sleep apnea: obstructive, which is the most common; and central sleep apnea, in which the brain temporarily stops sending signals to the muscles that control breathing. Treating mild sleep apnea can be as simple as telling a patient to lose weight. Other treatments include surgery to trim the soft palate or wearing a special dental appliance that keeps the teeth opposed and opens up the back of the throat. The most effective way to treat the disorder is with a continuous positive airway pressure or CPAP machine, which a patient wears to bed at night.

"What a CPAP does is very simple," Collop says. "Think about the leaf blower you use to blow leaves off your driveway, which works by creating an air flow. You just take that and put it in a box with a pressure device and you pressurize the air that's going into a patient's nose as part of a sealed system. The patient wears a mask and that pres-

surized air goes into their nose and down into their lungs and that constant flow of air prevents their throat from closing up."

Almost everyone who has obstructive sleep apnea can be adequately treated with a CPAP, says Collop. There's only one problem: compliance. "Lots of people don't like to wear them so we get about a 50 percent rate among people who use them," she says. "People don't like the annoyance of having to wear this mask at night and take this machine with you when you travel. But it's really only a treatment if you have it on your face and it's turned on and delivering pressure."

Within days of first using the CPAP, Flynn noticed that his sleep quality improved and his daytime sleepiness began to disappear. His family reports that his supernatural-sounding snoring is a thing of the past as well. "My wife absolutely swears by the CPAP," Flynn says. "She says it's a godsend."

