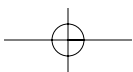
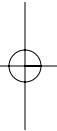
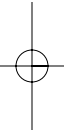


No More Snoring



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No More Snoring

**A Proven Program
for Conquering Snoring
and Sleep Apnea**

*Victor Hoffstein, M.D.
Shirley Linde, Ph.D.*



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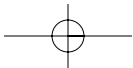
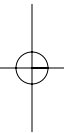
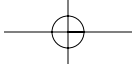
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1

Many Snore, Few Are Treated

It is said that in 1843 John Wesley Hardin, the infamous Wild West gunfighter from Texas, shot and killed a loud snorer sleeping in the next room in a hotel in Abilene. He just couldn't put up with the noise any longer.

Things don't usually take such a violent turn, although many spouses have confessed to feeling almost as violent and frustrated after lying awake for hours, night after night, unable to sleep because of the loud repetitive rumbling erupting next to them again and again and again.

There are an estimated 88 million men and women in the United States who are snorers; some 40 million of them suffer on a regular, unrelenting, and usually nightly basis. Surveys indicate that 20 percent of the adult population snores, and some indicate that as many as 86 percent of men over 40 suffer from the problem. Specific numbers vary, but studies from all around the world show very large numbers of suffering snorers—and suffering snorers' partners.

In other words, there are hundreds of millions of snorers throughout the world, with the roar of snores rising to the skies from cities and villages all around the globe. Unfortunately, what most people don't realize is that snoring can be dangerous. And they also don't realize it can now be successfully treated.

Sleepless in Setauket

In a survey conducted by the Gallup Organization for the National Sleep Foundation in 1995 involving more than 1,000 adult men and women, more than half of the respondents had been told by others

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that they snore, and one out of eight said they had been told that they also choke, gasp, or stop breathing for short times during sleeping. Statistics are similar in other countries.

Snorers and those who listen to them are sleepless in Seattle, Setauket, Seville, and São Paulo. In fact, in Setauket and more than a dozen other New York towns, a sleep researcher of New York University Medical Center distributed questionnaires to commuters at railroad stations. Of the 5,000 who answered the questionnaires, 40 percent said they were snorers, and 13 percent had the signs of sleep apnea, a more serious problem in which sleep is repeatedly interrupted with episodes of stopped breathing. Moreover, one out of four respondents said they had difficulty staying awake during the day while working, driving, or even talking on the phone. But few had ever received diagnosis or treatment. Most had never even asked for help. In fact, one National Family Opinion poll showed that only 4 percent of Americans have sought treatment for their snoring.

Not Just a Nuisance Condition

When most people think of snoring, they think of it as an almost humorous nuisance. But snoring can have very serious effects on the quality of your life and your health.

First, there are social ramifications. The social complications of snoring can be staggering. It can lead to social isolation, marital breakdowns, and chronic depression. It has threatened to break up couples on their honeymoon, gotten roommates kicked out, led to brawls in army barracks, kept potential relationships from progressing, and caused spouses to be banned to other rooms. In marriages all over the world, snoring is a nightly burden for both the snorer and the bedpartner. Wives and husbands—the silent suffering partners—lie awake next to their bedpartners every night, feeling angry and frustrated, building resentment, losing sleep. Others have moved to a different room to sleep. And some to different houses.

In addition, what most people don't know is that snoring can affect your quality of life in the daytime. Even though you may not realize it, snoring causes many brief arousals during your sleep that, when added up through the night, amount to enough lost sleep to affect how you feel and react the next day. Because of that, snoring can cause sleepi-

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ness at home, on the road, and on the job, and it can contribute to serious errors—sometimes catastrophic accidents. We'll tell you more of such incidents later—the facts are frightening.

Most people also don't realize that snoring can seriously affect your health, both on its own and because it often leads to episodes of gasping for air and stopped breathing called apnea. Sleep apnea can cause even more serious hazards to your health, and is sometimes even life-threatening. In some people these episodes of apnea can happen more than 100 times per hour.

Up until now the public—and even most physicians—have been unaware of just how hazardous to health snoring can be. Snorers seldom mention their problem to doctors and almost never seek medical help for it, and most physicians never even ask patients whether they snore. In fact, information about snoring and other sleep problems is seldom even taught in medical school or internship. A 1990 survey of U.S. medical schools showed little is taught to physicians about sleep in either the preclinical or clinical years.

But there has been a tremendous growth of knowledge at the research level, and treatments are now available. Unfortunately, many physicians in practice are still not receiving the information. Most members of the public and of the medical profession are unaware of the widespread impact of sleep disorders and the fact that treatments are available for them.

In fact, only recently have physicians and the public started to become aware of the extent to which snoring and other sleep disorders can lead to problems in people's lives. To assess how extensive the problem was, the U.S. Congress established a National Commission on Sleep Disorders Research. After studying the situation, the commission issued a report to Congress in 1992 called *Wake Up America* that labeled the low level of awareness of the impact of sleep disorders a national emergency. "The American public has been inappropriately denied the benefits of the research knowledge its tax dollars have supported," the commission reported. "This situation must be remedied without delay."

As a result, in 1993 the National Center on Sleep Disorders Research was established as part of the National Institutes of Health in the United States to deal with the many ramifications of sleep disorders and to educate physicians and the public about them. The commission urged physicians to discuss sleep problems with their patients.

In relation to apnea, the commission said the health costs for

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diagnosis and treatment of that alone might reach \$60 billion. Dr. William Dement, head of the commission and professor of medicine at California's Stanford University, says, "Americans have gotten the message that good nutrition and plenty of exercise are important for health . . . but we haven't paid enough attention to the third pillar of good health, which is adequate sleep."

A typical study cited by the commission is one done in Finland by Dr. Kirsti Martikainen and other researchers who found habitual snoring, untreated, gets worse over time, often affecting daytime functioning more and more. Sleepiness was common in the Finnish men and women they studied, with 23 percent of the snorers reporting dozing off at the wheel because of sleepiness. But during the five years tracked by the investigators, none of the sufferers had sought or been given advice or treatment!

The evidence of just what snoring can do to your life and your health, only now becoming known, is startling.

The Hazards of Daytime Sleepiness

Snoring tonight can make both you and your bedpartner sleepy tomorrow. It can wake you up again and again throughout the night, making you and your nighttime partner sleepy the next day. The snorers, as well as their bedpartners, often stagger to work in the morning bleary-eyed and dragging from insufficient sleep. They may go through the day listless and irritable, inattentive, inefficient, feeling no joy from the day, only wanting to get through it.

Snoring interrupts sleep for brief periods, frequently even without the snorer's being aware of this. These interruptions show up as "blips" in brain activity in the sleep lab and are called "arousals." They cause what researchers call "fragmented sleep," which is not as restful. As a consequence, snorers frequently wake up not feeling refreshed, and throughout the day they continue to feel tired, sleepy, and fatigued.

Now research studies all over the world show that snorers also tend to have memory and concentration problems. Some ten years ago Dr. Tina Telakivi and a group of researchers in Finland found that snorers had subtle deficits in thinking as compared to nonsnorers. Another study, in Denmark by Drs. Poul Jennum and Anette Sjol, studied about 1,500 people and found that of self-admitted habitual snorers, *22 per-*

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cent had memory problems and *57 percent* had concentration problems, much higher rates than occurred in nonsnorers. Dr. A. Jay Block and colleagues of the University of Florida and the Veterans Administration Medical Center in Gainesville gave a series of tests to sixty snorers and found that those who had the worst snoring had the worst scores the next day on IQ tests, memory, verbal fluency, reaction times, and visual coordination, and the worst recall of stories and images.

A study in 1996 at Avesta Hospital in Sweden showed that excessive daytime sleepiness at work occurred four times more often in snorers and *forty times* more often in sufferers of sleep apnea when compared to the general population. Snoring and sleep apnea were also associated with difficulties in concentrating, learning new tasks, and performing routine functions.

But the snorer usually believes that he or she slept well, never realizing just how disturbed the night's sleep was. Sleep-deprived people frequently misjudge their sleepiness and often do not understand why their performance is failing, or they mistakenly blame other factors for reduced performance. Sometimes snorers not only may mistakenly blame other factors for reduced performance, but they may even mistakenly be sent to psychiatrists because their doctors think there must be a psychological cause for their fatigue and irritability.

Many people have lived with lack of energy for so long, or it has crept up on them so gradually, that they do not know what "normal" feels like. Or they may think that being sleepy is just a sign of getting older. But it is not normal to fall asleep at your desk at work, or at a football game, or every time you sit down to watch a movie. Nor is it normal to have unexplained behavioral changes. You need to know what is causing this drowsiness and moodiness. When you get rid of it, you may be astonished at how you feel more wide awake, energetic, and alive.

And daytime sleepiness can be more—it can be a matter of life and death. Because if you're not fully alert, insufficient sleep can make you prone to accidents at home, at work, or on the road. There are many frightening examples.

The National Highway Traffic Safety Administration estimates, for example, that more than 100,000 crashes a year in the United States are related to driving while drowsy. In fact, latest statistics show that drowsy driving kills more young people in traffic accidents than does alcohol. The administration compares drowsy driving with drunk driving, and describes drowsy driving, like drunk driving, as risky and

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irresponsible. Indeed, hundreds of thousands die on highways around the world each year because someone fell asleep at the wheel. Reports from both New York and Pennsylvania indicate that nearly *half* of all fatal accidents on their roads are caused by drowsy drivers. And many drowsy drivers have near misses when they go through stop signs or sway out of their lane because of drowsiness or because they experience “gap driving,” when they drive along in a trancelike state and have no memory of landmarks along the way. Undoubtedly, many of these sleepy drivers are suffering from sleep apnea.

A 1998 poll by the National Sleep Foundation found that 23 percent of those interviewed had fallen asleep at the wheel within the year! Lives are risked wherever there are tired drivers. Dr. Larry Findley and colleagues at the University of Virginia at Charlottesville used a driving simulation program in a lab to conclusively demonstrate the effect that sleep apnea has on daytime awareness. Those with sleep apnea hit more obstacles than those without apnea. Another study showed that patients with sleep apnea were more than ten times at risk for an automobile accident than licensed drivers in general.

Snoring and apnea unquestionably contribute to truck and car accidents due to excessive daytime sleepiness—and the estimated 1,500 fatalities that occur from them each year.

High Blood Pressure, Heart Disease, and Stroke

Aside from causing daytime sleepiness, memory and concentration problems, and decreased alertness, snoring has been shown by some studies to be related to many health conditions. Snoring may be related to high blood pressure, heart disease, and strokes; many sleep researchers are currently studying if and how snoring can cause these problems. There is much controversy around the issue, and a great deal of research going on to get to the truth.

In 1980 in Italy, Dr. Elio Lugaresi and coworkers found a strong link between snoring and high blood pressure and reported it in the journal *Sleep*. Several subsequent investigations carried out in the mid-1980s confirmed the relationship, thus establishing snoring as an important health hazard. However, because high blood pressure and snoring are both affected by the same factors—obesity, age, cigarette smoking—there was some doubt whether the snoring alone had an in-

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dependent influence on blood pressure, or whether it affected it indirectly because it was associated with these other factors. In addition, many of the people with high blood pressure who snored turned out to also have sleep apnea along with their snoring, and so it could have been the apnea that was linked to the high blood pressure.

A study conducted by Dr. Terry Young and others at the University of Wisconsin at Madison analyzed data from 580 people and found that people with snoring, even without apnea, were significantly at risk of high blood pressure, with the risk becoming greater as the snoring became worse, and most severe when apneas appeared. And in other studies, even when weight and smoking and other factors were taken into account, researchers found that people who are habitual snorers are more likely to have high blood pressure, and in fact, when these people were treated for their snoring, their blood pressure returned to normal.

There was, and still is, controversy also about the relationship of snoring to heart disease and strokes. Some studies indicate that snoring is associated with these outcomes, while other studies do not confirm this association. It is still too premature to give a simple yes or no to the question of whether there is a relationship between snoring and vascular disease. But some researchers believe that many people who die in their sleep may have had a heart attack or stroke brought on by the complications of heavy snoring and the stopped-breathing episodes of apnea often associated with such snoring.

Other Health Problems

In addition to all these problems, several studies have shown that heavy snorers have other problems, for example, frequent bad morning headaches.

If there is apnea, oxygen levels in the blood are lowered, causing additional problems. For example, the *Journal of Sex and Marital Therapy* reports that sexual dysfunction in men can be related to chronic decreased oxygen at night.

Also some early small studies suggest the possibility that loud snoring, like other loud noises, might lead to hearing loss, and indeed might be the cause of some of the “normal” hearing loss that sometimes occurs with age. The first report about this was in 1973 by Dr. M.

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Prazic of the University of Zagreb in Yugoslavia. He compared the pillow-level noise of snoring to the noise heard by a worker in a noisy factory. "A snorer snores usually every night for several hours for years, even decades," he wrote. "It would be difficult to presume that no damage of the snorer's hearing took place." He examined seventeen snorers and found that they all had measurable hearing losses. It may not be a coincidence that the wife of the man awarded the title of snoring champion (i.e., the loudest snorer) in 1992 became deaf in one ear.

Snoring Can Be Treated

Snoring is not just a social nuisance; it is an important medical condition. It can be connected to other medical problems and it can cause medical problems on its own.

But despite snoring's prevalence, and despite its effect on daytime quality of life and its medical importance, very few people get treated. In fact, they seldom even think of the possibility of treatment, and physicians seldom ask about sleep patterns or snoring, or suggest treatment.

We consider the impact of snoring and apnea on health and well-being to be so significant that we believe that as part of every checkup physicians should ask patients if they snore or have been told they stop breathing when sleeping or have other sleep problems. If their physician doesn't bring up the subject, then any person who has the problems should bring the subject up.

You don't have to tolerate the sleep-robbing racket in your bedroom, or the health complications from snoring. There are many treatments for snoring now available. Researchers have learned much in the last few years, such as the fact that most snoring can be cured by the lifestyle changes of losing weight, avoiding alcohol, sleeping pills, and muscle relaxants, and quitting smoking, and that more severe cases can be cured with dental appliances, breathing aids, and new techniques of simple surgery. Unfortunately, the news has mostly not been reaching the public.

We hope this book will change that. We'll discuss the many different causes of snoring and the dangerous things that can make your snoring worse, and help you learn more about your particular problem

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with snoring, the possible causes in your case, and the specific things that you can do for your best treatment.

It brings together advice from doctors at St. Michael's Hospital and the University of Toronto, and from other researchers and specialists around the world to give you an integrated, step-by-step no-more-snoring program to treat *your* snoring problems. We give you advice on simple lifestyle changes and other remedies that can help your snoring as well as information on the latest techniques, appliances, and surgery. We tell you about different remedies, help you answer questions about your snoring, and tell you what step-by-step things you can do to help you with your particular problem. Follow the steps in the program, and you may be able to put an end to the noisy nights that keep others awake, the tired days after sleep-disturbed nights, and the hidden health problems that may be gradually affecting your body.

The programs at St. Michael's Hospital and other sleep disorders centers work. The success rate at St. Michael's for patients who comply with the program is over 90 percent. And there is a long waiting list.

But first, just as would happen if you came to the sleep disorders center at St. Michael's Hospital and the University of Toronto, we want to answer some of the most common questions and in so doing tell you some facts and controversies about snoring. We'll do that in the next chapter.