

Radio-Frequency Device Painlessly Eliminates Sleep Apnea and Snoring

When philosophy major Eddie Olivieri, 19, went back to Marquette University this semester, his new roommates were understandably delighted to learn that his foghorn snoring problem was fixed.

"I was known around campus as the sleeping bear who snored loudly," Olivieri lamented. "My dorm roommate last year couldn't stand it and if I hadn't had the problem fixed, he and the other guy would not have wanted to share an apartment with me this year."

Olivieri said he was "always exhausted and dragging," but he thought that was a normal condition for a college student. He also suffered from allergies, he said, and was usually sick with a cold. He didn't connect his loud snoring and violent gasping for air at night to an obstructive sleep apnea syndrome.

At the urging of his mother, however, he went to see ear, nose and throat specialist **Dr. Michael Friedman** at the Advocate Illinois Masonic Medical Center who ordered sleep studies which revealed that the young man was ceasing to breathe an astonishing 36 times per hour—a potentially life-threatening problem.

"I Wasn't Breathing"

"That was a huge amount of time that I wasn't breathing," Olivieri exclaimed.

Sleep apnea is a sleep disorder that causes breathing to stop during sleep from a 10-second period up to a minute or longer due to pharyngeal obstruction.

The pause in breathing—called apnea—can occur hundreds of times a night. When this lapse in breathing repeatedly occurs, it causes carbon dioxide to build up in the bloodstream accompanied by a precipitous drop in blood oxygen levels. Frequently, sleep apnea causes fatigue, daytime sleepiness, weight gain and depression.

Dr. Michael Friedman pioneers a new technique to eliminate sleep apnea. This new procedure provides a fast recovery with less pain.



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Cardiopulmonary complications can result from the lack of air. The heart is forced to work harder to keep the blood oxygenated, putting the sleeper at great risk. Sleep apnea can be a silent and arcane killer in the night. Since sleep apnea interferes with sleep, it can cause a myriad of more severe problems that include heart disease; heart attacks; hypertension; stroke and even impotence.

And according to the National Institutes of Health, sleep apnea astonishingly affects more than 12 million Americans.

"The reason patients die of sleep apnea is that snoring blocks air flow—this is a major factor. There is not enough oxygen in the lungs and a drop of oxygen in co-morbid abnormalities can cause a heart attack episode," explained Dr. Friedman.

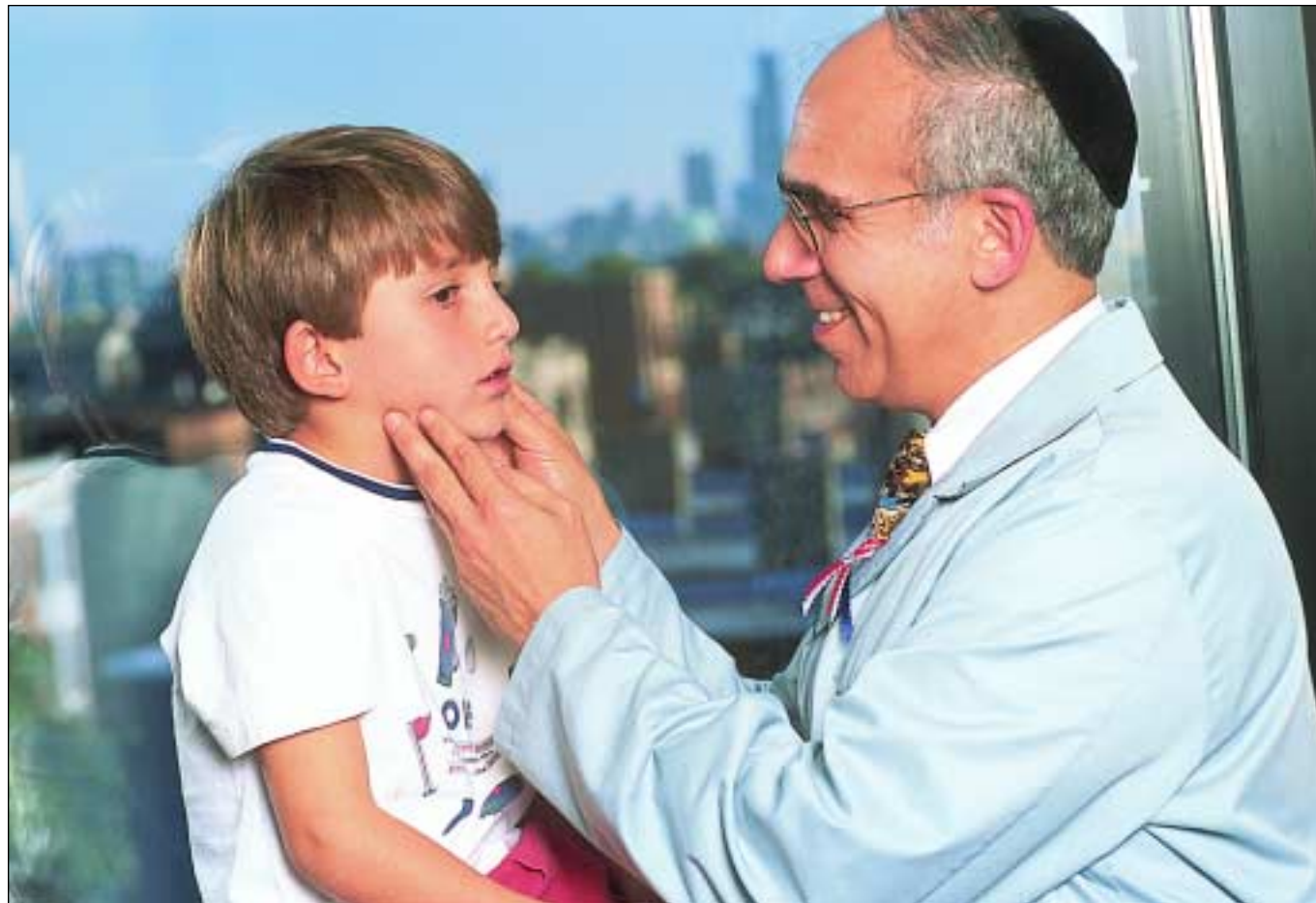
Radio-Frequency Ablation Is A New Technique

One of the causes of sleep apnea and snoring is enlarged tonsils or a thickened soft palate. Radio-frequency ablation is a new technique for shrinking the tonsils. Small probes are placed into the throat and the R-F energy is deposited, causing the tissue around the tip of the probe to heat up to a high temperature above which cells break apart and die. This technique has minimal thermal damage to surrounding tissues. Unlike the traditional tonsillectomy where the entire tissue is excised from the base, this R-F procedure involves ablation via a probe that is put into contact with the surface of the tonsil, removing tissue layers one at a time. The procedure is performed under a general anesthetic but the patient goes home the same day with a prescription for antibiotics.

So in lieu of a tonsillectomy, Dr. Friedman frequently uses this relatively painless new technique to shrink tonsils and the uvula, the little punching bag that hangs down in the center at the back of the throat from the soft palate. His teenaged patient, who formerly disrupted his dorm's entire floor with his awake-the-dead snoring problem, was eating pizza, he said, within a couple of hours of the surgery.

"It's just unbelievable," said Dr. Friedman, who was one of the investigators in clinical trials for the device. "We took a surgical procedure that I really disliked doing because it causes pain—and we improved it because it's difficult to tell a patient they will have severe pain for two weeks—but I wanted to obtain the same results as surgery without the pain."

If the patient requires a full tonsillectomy,



Prior to his tonsils being shrunk by the new radio-frequency device, Jordan Shachar would often wake-up from his own loud snoring. Now that his airway is unobstructed, Jordan breathes easy while he sleeps.

then an advanced ultrasonic device known as the Harmonic Scalpel is used. Both procedures clear the passage in the throat to allow for air to flow freely in and out of the mouth for maximum tissue oxygenation.

Dr. Friedman's treatment plans run the gamut, he said, "from very, very simple to very, very complex."

The radio-frequency technique can also be used with minimal morbidity to reduce nasal turbinates—the small, shelf-like, bony structures covered by mucous membranes that protrude into the nasal airway and help warm and cleanse the air as it is inhaled. The enlargement of nasal turbinates typically causes chronic nasal obstruction or a "stuffy" nose. Enlarged turbinates often cause mouth breathing and can also contribute to snoring and sleep apnea.

Patients Can't Diagnose Themselves

"Patients are daunted to diagnose themselves," says Dr. Friedman. "Ninety percent of the time, patients are brought in by a bed partner because the person with sleep apnea is not aware of the problem and they sleep extremely deeply."

Although the bed partner's sleep can take a thorough shellacking, it is the slumbering snorer who is at the greatest health risk.

The threat of great bodily harm extends during the day as well. Automobile accidents have been attributed to the daytime sleepiness.

"Often sleep apnea is associated with motor vehicle accidents because the patient is driving under the influence of fatigue which is an identical risk to driving under the influence of alcohol; I call it 'driving when tired,'" Dr. Friedman stated, adding that "Friends shouldn't let friends drive when tired."

"People Die in the Night"

"People die in the night, but the data is grossly under-recorded due to poor physician awareness," said Dr. Friedman. "One of the primary recent goals of the AMA was to teach physicians about sleep apnea, a problem both common and serious."

Dr. Friedman has always discouraged tonsillectomies in the past. He says that of his own 18 children and grandchildren, only one has had their tonsils removed.

"But some children grow into adults with sleep apnea and the result is enlarged tonsils with thickened uvula and soft palate, so adults now benefit from this procedure," said Dr. Friedman, who added that one third of the population has some degree of snoring. He attributes the problem in many cases to weight.

"Fat cells are in the throat," he said, "also, genetics play a part."

Children Reap Major Benefit

Dr. Friedman has found that children also benefit from the new radio frequency technique. These are children who are referred by their pediatricians for the minimally invasive tonsillectomy and adenoidectomy, children who appear to have blockage of their upper airway, who snore and always appear to have a cold—or they engage in mouth breathing. It is performed in the operating room with the child asleep.

"The major benefit is for kids," he said. "Formerly they were very sick for up to two weeks, not to mention the emotional trauma; they had pain and the risk of dehydration, but now they're eat-



Dr. Michael Friedman examines Elias "Louie" Giannos prior to using radiofrequency ablation to shrink his tonsils.

ing sooner. They can still have ice cream post-procedure, but they can also eat normal food and most kids are eating solid food within 24 hours."

Major stress should be on the reduction in the surgical risk. Classic tonsillectomy carries risk such as bleeding. This risk is almost completely eliminated with the radio frequency procedure.

Five-year-old Jordan Shachar had his tonsils shrunken—using the radio-frequency device—and his adenoids removed in a recent surgery.

"I had read about this new procedure in a parenting magazine and went to see Dr. Friedman for a second opinion, but first Jordan had two sleep studies and they found that he had some degree of sleep apnea," said his mother, Orly Shachar.

She mentioned that her little boy was frequently waking up at night—and that at times, his snoring was louder than his father's was. She said he came through the procedure like a champ and was eating noodles at a Thai restaurant the very next evening. Mrs. Shachar mentioned that she had nearly an entire bottle of the liquid pain medication prescription left over because Jordan had only needed two small doses.

"I choose Dr. Friedman, even though I had to jump through insurance hoops, because he was so empathetic," explained Mrs. Shachar, "and he did a great job."

Sharing with Other Otolaryngologists

Dr. Friedman is on the editorial board of three major peer-reviewed medical journals, the editor in chief of an otolaryngology technique journal and a member of several sleep societies. He also teaches his procedure to other otolaryngologists—specialists who are trained in both medicine and surgery.

"If you have something good, you want to share it; I can only enjoy this if I share it; people all over should benefit," Dr. Friedman opined.

He'll have that opportunity to perform another procedure soon when Tony Olivieri comes in—Eddie Olivieri's older brother. According to Eddie, Tony's wife can't take any more of her husband's window-rattling snoring at night.

"She's had enough and she wants it to stop," Olivieri laughed.

For more information or referrals: (773) 296-5500 or (312) 236-3642. ■

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IV Antibiotics for Resistant Sinusitis

Dr. Michael Friedman, ever vigilant for increasingly minimally invasive treatments for persistent or resistant sinusitis, is successfully using at-home intravenous (IV) antibiotic treatment as a viable option for endoscopic sinus surgery.

Treatment of chronic sinusitis with oral antibiotics may often be inadequate, Dr. Friedman says, due to the fact that many patients fail to respond and some of those who do respond, find themselves with another infection within weeks; treatment for these patients previously was surgery.

"IV antibiotic treatment certainly is not a solution for every patient, but we've had an 80-percent success rate so far so and we're studying this treatment option for *selected* patients," declared Dr. Friedman, who added that some patients would still need surgery. "When there's a mechanical obstruction, the solution is usually surgery because it provides aeration of sinuses, but endoscopic surgery is minimally invasive and has a 90-percent success rate."

Home visiting nurses teach the patient how to administer the IV at home with a special line that is kept in place for six to eight weeks. A 30-minute drip of the antibiotics once a day has shown excellent results.



Dr. Michael Friedman

"The Future Is To Avoid Surgery"

"The future is to avoid surgery whenever possible," declared Dr. Friedman. "Home IV therapy is a lot simpler than it used to be for populations who do not respond to oral antibiotics and the vast majority of patients have been very, very pleased; in fact, a lot of them find themselves getting better right away, within the first week."

Dr. Friedman has been involved with a study for patients with persistent or recurrent sinusitis following endoscopic sinus surgery, where the IV therapy is also being used as the preferred treatment with some promising outcomes.

"Surgery, however, should be very limited and precise and only address certain obstructions," stated Dr. Friedman, who recently presented these findings on nonsurgical treatment at the Annual American Rhinologic Society Scientific Meeting in Denver. "If we can obtain the same success rate with a minimum of surgery—or *no* surgery—that's a tremendous advantage for the patient."

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