



American Academy of Otolaryngology – Head and Neck Surgery  
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# Injection Snoreplasty



## What Is It?

Injection snoreplasty is a nonsurgical treatment for snoring that involves the injection of a hardening agent into the upper palate. Army researchers from Walter Reed Army Medical Center introduced this procedure at the 2000 Annual Meeting of the American Academy of Otolaryngology – Head and Neck Surgery Foundation. Their early findings indicate that this treatment may reduce the loudness and incidence of primary snoring (snoring without apnea, or cessation of breath). The Academy neither endorses nor discourages the use of injection snoreplasty for the treatment of snoring.

Those seeking injection snoreplasty to reduce snoring should first be screened for obstructive sleep apnea or OSA (frequent cessation of breathing due to upper airway obstruction) by undergoing a sleep test. If sleep apnea is confirmed, other treatment may be recommended.



## Treatment

Injection snoreplasty is performed on an outpatient basis under local anesthesia. After numbing the upper palate with a topical anesthetic, a small amount of a hardening agent is injected just under the skin on the top of the mouth in front of the uvula (upper palate), creating a small blister. Within a couple of days the blister hardens, forms scar tissue, and pulls the floppy uvula forward to eliminate or reduce the palatal flutter that causes snoring. In some patients, the treatment needs to be repeated for optimum benefits.

If snoring occurs from vibrations beyond the palate and uvula and/or obstructive sleep apnea is suspected, further testing and alternative treatment options may be advised. A thorough examination by an ear, nose and throat specialist is recommended to diagnose the source and type of snoring, and determine whether injection snoreplasty may be helpful.

## Post-treatment follow-up

After injection of the hardening agent, patients are observed in the otolaryngologist's office and then sent home. Tylenol® and throat lozenges or spray are suggested for pain management. Patients can return to work the next day. Though snoring may continue for a few days, it should eventually lessen. A post-procedure sleep test may be administered to fully evaluate the effects of the procedure.

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### Possible side effects

A residual sore throat or feeling that something is “stuck” in the back of the mouth may occur. Suggestions for treatment of sore throat include Tylenol® and/or throat lozenges or spray.

### Statement on the Use of Sotradecol®

Sotradecol®, a trade name for sodium tetradecyl sulfate, is the most common hardening agent used in injection snoreplasty. This agent is indicated by the Food and Drug Administration (FDA) for “intravenous use only” and “for small uncomplicated varicose veins of the lower extremities that show simple dilation with competent valves.” Warnings include: 1) “severe adverse local effects including tissue necrosis,” and 2) “allergic reactions, including anaphylaxis, have been reported that led to death.”

### Snoring Is a Problem

Forty-five percent of normal adults snore at least occasionally, and 25 percent are habitual snorers. Thirty percent of adults over age 30 are snorers. By middle age, that number reaches 40 percent. Clearly, snoring is a dilemma affecting spouses, family members and sometimes neighbors.

Snoring sounds are caused when there is an obstruction to the free flow of air through the passages at the back of the mouth and nose. This area is the collapsible part of the airway where the tongue and upper throat meet the soft palate and uvula. When these structures strike each other and vibrate during breathing, snoring results.



### How Is Snoring Treated?

Snoring can be diagnosed as primary snoring (simple snoring) or obstructive sleep apnea. Primary snoring is characterized by loud upper airway breathing sounds during sleep without episodes of apnea (cessation of breath). Obstructive sleep apnea is a serious medical condition where individuals have frequent episodes of apnea during sleep, contributing to an overall lack of restful sleep and severe health risks including heart attack and stroke.

Various methods are used to alleviate primary snoring. They include behavior modification (such as weight loss), surgical and non-surgical treatments, and dental devices.

Surgical treatments for primary snoring include: *laser assisted uvulopalatoplasty (LAUP)*, an outpatient treatment for primary snoring and mild OSA that involves use of a laser under local anesthesia to make vertical incisions in the upper palate, shortening the uvula and lessening airway obstruction; and *radiofrequency volumetric reduction of the palate*, a relatively new procedure performed in an otolaryngologist’s office that utilizes targeted radio waves to heat and shrink tissue in the upper palate.