

## Laryngitis from Reflux: Prevention for the Performing Singer

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For people who do not smoke, the most common cause of chronic or recurring irritative laryngitis is exposure to gastric secretions that have refluxed into the pharynx through the oesophagus.

The acid exposure that causes most reflux laryngitis occurs during sleep. Whereas it is possible to have reflux into the upper throat during the day, this is unusual and is most often associated with prompt swallow and clearing of the refluxed material from the pharynx.

Reflux into the pharynx is more likely to occur during sleep, and the material is then more likely to reach the larynx and less likely to be quickly cleared by swallow. Performers may be particularly at risk for irritative laryngitis from reflux because of lifestyle factors that contribute to nocturnal reflux.

Performers often work in the evening and wait to have dinner after their performances. Retiring while there is food or liquid in the stomach, and while the digestive process is active, predisposes to reflux during sleep.

Performers are often under significant stress, which can also contribute to increased gastric acid secretion during the sleeping hours.

Because irritative laryngitis is a significant problem for performers and because this cause of laryngitis is largely preventable, it is useful for singers and other voice professionals to understand the problem of reflux and laryngitis.

### PREVENTION □□□□

Irritative laryngitis is best prevented by practicing healthy eating habits. □□

The stomach responds to ingestion of food or liquids by turning on the digestive cycle, with secretion of hydrochloric acid and digestive enzymes. □□

Normally, when the stomach empties, the secretory cycle slows and the stomach quiets down. □□

In conditions of stress and with some medications, such as steroids, the stomach may secrete gastric acid even when it is not stimulated by food ingestion.

Large meals with high fat content will delay gastric emptying. □□

Therefore, to avoid having active acid secretion during sleep, one should avoid food or liquids for two to three hours before retiring. □□

Drinking fluids during the night increases the risk of reflux, because they stimulate new acid secretion and the fluids can easily come back up during sleep. □□

Reflux into the esophagus during sleep is less likely to affect the larynx if the position during sleep favours protection of the larynx.

Elevation of shoulders and neck during sleep will prevent or significantly decrease reflux in many individuals. This is most effectively done by raising the head of the bed several inches or, alternatively, adding a foam rubber wedge-shaped mattress supplement that extends from the waist to the top of the bed.

If precautions against reflux at night are being followed and throat irritation symptoms persist, medication to suppress gastric acid secretion may be necessary.

The trauma of throat clearing increases the likelihood of persistent laryngeal injury. Therefore, it is important to avoid throat clearing and to substitute swallowing to clear the bothersome throat secretions.

Just as it is common that chronic laryngitis develops after an illness that includes coughing or vomiting, the larynx is also vulnerable to acid reflux damage after endotracheal intubation for general anesthesia.

We recommend that patients who have recovered from irritative laryngitis take particular precautions against reflux and go back on acid suppressing medication when they have a cold or when they are at some other risk for injury to the lining of the larynx.

For patients who require long-term suppression of gastric acid secretion and for patients who have esophageal symptoms, we like to prescribe treatment and follow symptoms in conjunction with a gastroenterologist.

It is important for performers to understand that not all physicians are experienced in diagnosing and treating chronic irritative laryngitis.

Examination with a magnifying 90- or 70-degree telescope with a good fiberoptic light source is important for recognition of the color changes that are characteristic of laryngitis from acid irritation, but many physicians are not experienced with telescopic laryngoscopy.

However, because prevention is the key treatment in irritative laryngitis and because lifestyle changes are often the most important factors in prevention, the most important factor in treatment of chronic irritative laryngitis is patient education that results in a clear understanding of the disorder.

We hope that this review is helpful to performers and to the physicians who care for them.