

Laryngospasm

What is a Laryngospasm?

Laryngospasm is a frightening sudden involuntary brief spasm of the adductor muscles of the vocal folds that occlude the passage of air in and out of the lungs. It temporarily makes it difficult to speak or breathe. Many people experience something similar when they eat/drink something that, as the lay person says, “goes down the wrong throat”. With a laryngospasm, the cause may or may not be determined. Laryngospasm most commonly is associated with gastroesophageal reflux disease (GERD) when gastric contents come in contact with the vocal cords. Laryngospasm can also occur as a reflexive response to:

- Aspiration
 - Irritation to oral secretions that come in contact with the laryngeal folds
 - The entry of water in the case of a drowning which may result in a “dry drowning”
 - The sensation is present of something other than air entering the windpipe
 - Anesthesia used during surgery can irritate the vocal cords, especially in children.
- Laryngospasm caused by anesthesia can be life-threatening.

Though laryngospasm can be frightening, the vocal cords eventually relax without causing serious problems. Laryngospasms can occur during the day while the person is awake or at night while the person is sleeping. Though it can be scary while it's happening, laryngospasm typically lasts less than 60 seconds. Understanding the disorder decreases the panic usually associated with it.

It is suspected that you become more susceptible to laryngospasm after an injury to the nerves of the voice box. Nerves heal by regrowing new endings, and these new nerve endings seem to be hypersensitive. Even normal things can then trigger the spasm. It is somewhat common after one nerve has been injured and healed, such as after neck surgery, the nerve is usually weak for several months, and then regrows.

Finally, laryngospasm is an extremely common condition in patients having had nerves on both sides of their voice box injured or paralyzed. Actually paralyzed vocal cords are not really paralyzed. The nerve almost always regrows, and often crosses or mixes up connections and the vocal cord ends up with a rather permanent tension. Usually after a paralyzing injury, the vocal cords are actually closer together, spasm easily and can still close tightly.

Each individual laryngospasm episode is a self-limiting disorder that will resolve on its own. However, the condition of being susceptible to frequent laryngospasms may go on for some time or a lifetime.

What Are the Symptoms of Laryngospasm?

When laryngospasm occurs, people are unable to breathe or speak. Sometimes the episodes occur in the middle of the night. A person may suddenly awaken feeling as though he or she is suffocating. This condition is called sleep-related laryngospasm.

Symptoms may include:

- Sudden abrupt onset
- Coughing/gasping
- Suprasternal, supracostal retractions in infants/young children
- Nasal flaring in infants/young children
- Difficulty swallowing or clearing the throat
- Stridor/hoarseness as the vocal folds relax
- GERD symptoms
- Feels like you will never breathe again or are going to die
- When the spasm begins to resolve, inspiration is very noisy and difficult
- Lasts less than 60 seconds
- Faster inspiration makes it worse

How Is Laryngospasm Treated?

There's no effective medication to relax the vocal cords more quickly than with no medication. If GERD is the problem, treating the condition can help manage laryngospasm by reducing the frequency and severity of episodes. Doctors often prescribe proton-pump inhibitors. These reduce the production of stomach acids to make the fluids from the stomach that do back up into the esophagus less corrosive. Another option is prokinetic agents. These stimulate movement in the digestive tract to reduce the amount of acid available. GERD can also be improved by following these lifestyle tips:

- Avoid common heartburn triggers, such as fruit and fruit juices, caffeine, fatty foods, and peppermint.
- Eat smaller meals, and stop eating two to three hours before bedtime.
- Eliminate tobacco and alcohol consumption.
- Raise the head of the bed a few inches by putting wood blocks under the bedpost.

Appropriate positioning may help the body relax and speed the recovery. Techniques may be determined by trial and error. They may include:

- Sitting down and trying to relax the entire body during an episode
- Sitting and tilting the head back in adult patients
- Placing infants prone
- Elevating head of bed

Patients who don't respond to these treatments may require a Fundoplication. Additionally, a tracheostomy may be done which is capped that can be removed during the laryngospasm.

References accessed on 11/2/11:

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<http://www.webmd.com/heartburn-gerd/laryngospasm-causes-symptoms-and-treatments?page=2>

<http://www.voicedoctor.net/content/laryngospasm>

<http://www.youtube.com/watch?v=nPtdkqOLLP4>