

What is Superior Laryngeal Nerve Paresis?



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A Superior Laryngeal Nerve Paresis (SLNp) occurs typically because of a viral infection that settles in the superior laryngeal nerve. This nerve runs on the outside of the larynx and sends the signal to the Cricothyroid muscle (the v-shaped muscle above) responsible for stretching the vocal folds and changing pitch. The SLN is particularly susceptible to viral infections for some reason, and this kind of weakness is fairly common. When a virus affects the nerve, it swells and cannot deliver all of the information to the muscle, so the muscle becomes weak and does not function to its potential. That's generally when the vocal symptoms present.

Stroboscopic Findings:

- One vocal fold looks “sluggish”, and isn't moving as well as the other
- Reduced length of affected vocal fold while sliding up to highest pitch
- Bowed vocal fold(s)
- If compensating with extra effort, scissoring of vocal fold, with affected fold being lower than healthy vocal fold
- Reduced amplitude of vibration of affected vocal fold, especially at higher pitches
- Rotation and tilting of the arytenoids toward the healthy side

SLNp Vocal Symptoms Include:

- Vocal fatigue
- Difficulty projecting voice
- Breathiness
- Voice breaks or missing notes
- Tightness in throat
- Loss of range, usually upper, but can include middle or lower range
- Increased warm-up time

- Hoarseness
- Increased effort with voice production (usually because of compensation or working too hard muscularly)
- Occasional choking on liquids

Treatment

If the SLNp is significant to a professional voice user, and caught early, sometimes corticosteroids are an option, but only if an impending performance is upcoming and only on a case by case basis.

Voice Therapy

Voice therapy has been shown to be quite effective in the treatment of SLNp. The focus of therapy is on the following:

1. Reduction of Compensatory Muscle tension
 - a. Relaxation/ Stretching
 - b. Direction massage of compensatory muscles
2. Abdominal Support and Breathing
3. Laryngeal Articulation Exercises (for glottic sufficiency and stretching to address the cricothyroid muscle weakness to restore vocal function)
4. Singing Techniques for Professional Singers (private singing lessons)

LAT expanded into singing
Stretching
Messa di Voce exercises
Staccato exercises