

Audiology and Speech-Language Pathology

VIDEOSTROBOSCOPY OF THE LARYNX

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of this procedure and invite you to participate. Please read the following information to learn about the procedure and how you can help.

Fast Facts About Videostroboscopy of the Larynx

- A videostroboscopy of the larynx is done to look at the function and motion of the voice box and vocal cords.
- A videostroboscopy may be prescribed by your child's doctor in order to diagnose voice problems such as hoarseness, which may be caused by swelling of the vocal folds (vocal cords) due to heavy use, misuse, irritations, polyps or growths or acid reflux. It also may be helpful to evaluate swallowing problems, which may be due to muscle abnormalities.
- The videostroboscopy is done in the voice clinic as an outpatient procedure, so your child may go home afterward.
- The videostroboscopy is done using a topical anesthetic to numb the nasal passages. Your child will be awake during the procedure.
- The procedure does not hurt.
- A pediatric otolaryngologist, also known as an ENT (a doctor who specializes in problems of the ears, nose and throat), will do your child's videostroboscopy.
- This evaluation takes about 20 minutes.



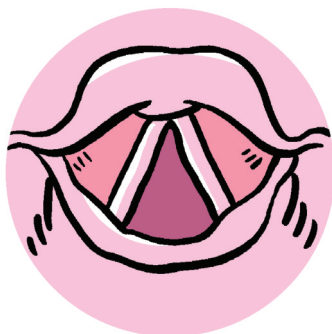
What Is the Larynx?

The larynx (*LARE-inks*), or voice box, is an organ in the neck that contains the vocal folds, also known as the vocal cords. Vocal folds are used to produce speech, sounds and singing. Vocal folds also protect the doorway into the trachea (*TRAKE-ee-uh*), which is also known as the airway or windpipe. Sometimes redness or bumps can be seen on the vocal folds during a videostroboscopy, which can be a sign of a problem with your child's voice and breathing abilities.

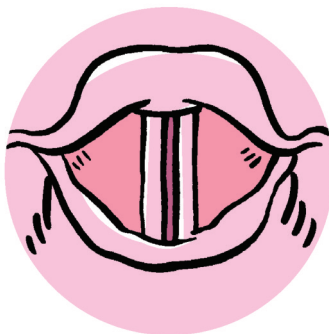
The voice box works when the diaphragm (*DIE-uh-gram*) contracts and flattens as the lungs fill with air on inhalation (breathing in). When you exhale (breathe out), the air in the lungs goes up through the trachea to the voice box. The vocal folds (vocal cords) in the voice box stay open when you breathe and then close when you produce sound. Air bursting through the vocal cords causes them to vibrate and produce voice.

What Is A Videostroboscopy?

A videostroboscopy examination evaluates the structure of the throat and voice box (larynx) while your child is asked to speak. Your child's otolaryngologist or ENT doctor and a speech-language pathologist will perform the procedure using a thin, flexible tube called an endoscope, which is an instrument that



Vocal folds apart
for breathing



Vocal folds together
for speaking

VIDEOSTROBOSCOPY OF THE LARYNX cont'd

combines a camera and fiber-optic strobe light. The endoscope is connected to a video monitor and recorder. The light from the endoscope shines into the voice box so the doctor and the speech language pathologist can see the motion of the vocal folds while speaking. This procedure allows the doctor to see how your child's vocal folds are working.

Home Preparation

There is no special preparation needed before the videostroboscopy.

A Parent's/Guardian's Role

The most important role of a parent or guardian is to help your child stay calm and relaxed before the procedure. The best way to help your child stay calm is for you to stay calm.

- You may bring along a "comfort" item—such as a favorite stuffed animal or "blankie"—for your child to hold during the procedure.
- If you are a guardian of the child having the procedure, please bring the necessary paperwork with you to prove your guardianship.
- One parent may stay with the child during the videostroboscopy. Because the room is very small, the other parent and siblings must wait in the waiting area.
- If your child is young, he or she may sit on your lap during the procedure.

The Videostroboscopy

Your child will be moved to a room in the voice clinic equipped with an examination chair.

- The nurse will put a topical anesthetic (numbing medicine) into your child's nose to numb the nasal passages.
- The ENT doctor will insert and gently pass the thin, flexible endoscope into one nostril, through the nasal cavity, and then into the throat to view the vocal folds.
- Once the endoscope is in place, a speech pathologist—a specialist in the diagnosis and non-medical treatment of speaking voice disorders—will ask your child to repeat certain speech tasks, such as the sound "ee." These speech sounds will allow the medical team to see how your child's vocal folds are working.
- After approximately 20 minutes, the evaluation will be over and the doctor will remove the endoscope.

After the Videostroboscopy

- Your child's nose, mouth and throat may remain numb for 30 to 45 minutes after the procedure.
- Use caution when your child eats and drinks for about 30 to 45 minutes after the procedure, as some children may cough a little while the anesthetic (topical numbing medicine) is wearing off.

At-Home Care And Follow-Up Visits

- Your child may return to school or daycare when he or she feels well enough.
- Your child may return to normal daily activities.

Special Needs

If your child has any special needs or health issues you feel the doctor needs to know about, please call the Department of Audiology and Speech-Language Pathology at Children's Hospital **before** the procedure and ask to speak with a nurse. It is important to notify us **in advance** about any special needs your child might have.

Audiology and Speech-Language Pathology
Children's Hospital of Pittsburgh of UPMC
One Children's Hospital Drive
4401 Penn Ave.
Pittsburgh, PA 15224
412-692-5580

To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.

