

Children's Ear Nose & Throat Center

Sub-specialists of Dell Children's Medical Center of Central Texas

A member of the  Seton Healthcare Family

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After Hours (512) 458-1121

Single Stage Laryngotracheal Reconstruction (SSLTR)

Single stage laryngotracheal reconstruction is a surgery in which the airway is made larger by placing a graft in the area that is narrowed. The main surgery is followed by a series of scopes (or Microlaryngoscopy and Bronchoscopy) in the operating room to check the airway for healing. If your child has a tracheotomy tube, the tracheotomy tube will come out during the surgery and the hole (also known as a stoma) will be closed, whereas in Double Stage Laryngotracheal Reconstruction (DSLTR), the trach is removed after the surgery.

A breathing tube (also known as an endotracheal tube or ETT) will be in place through the nose after the surgery. The breathing tube holds the airway and graft in place while it heals so it does not shrink back down. The ENT doctor will decide how long the breathing tube needs to stay in place. "Single stage" refers to the number of steps in the reconstruction.

After Surgery

Your child will be cared for and closely monitored in the intensive care unit (ICU) after surgery. The ICU doctors will closely monitor your child's total care, while the ENT doctors will closely monitor the airway. While your child is in the ICU, medications may be given to help prevent them from pulling out their breathing tube. These medications make them sleepy and comfortable.

Before the breathing tube is removed (also called extubation), often children return to the operating room for a microlaryngoscopy and bronchoscopy (MLB) to see how well the airway is healing. The ENT doctor will decide when the breathing tube should be removed.

Once the breathing tube is removed, your child's breathing will be closely monitored. When the medications that make your child sleepy are stopped, some children experience jitteriness or slight unsteadiness (also called withdrawal) for a short period of time.

The ENT doctor will decide when the next microlaryngoscopy and bronchoscopy is needed, usually before discharge. Once breathing is stable, the child will be transferred to a high observation unit (also called airway unit) for monitoring. As children continue to progress with breathing on their own, tolerating feedings and healing overall, they will be cared for in the hospital until ready for discharge.

Laryngotracheal Reconstruction (LTR) or Staged Laryngotracheal Reconstruction

Staged laryngotracheal reconstruction is a surgery in which the airway is made larger by placing a graft in an area of the airway that is too narrow. Most grafts are made of ear cartilage, thyroid cartilage, or rib cartilage. The ENT doctor (Ear, Nose and Throat) will decide what type of graft is best for your child. The ENT doctor will decide where the graft needs to be placed: in the front of the airway (also called anterior), the back of the airway (also called posterior), or both in order to make the airway larger.

If your child has a tracheotomy tube, the tracheotomy tube will remain in place after the surgery, unlike in Single Stage Laryngotracheal Reconstruction (SSLTR) where the trach is removed during surgery.

There will be an incision in the neck where the surgery was done. A small drain will be in the neck to allow fluid and air to drain after the surgery. If rib cartilage is used, there will be a small incision on the chest and a drain will be in place there after the surgery. A stent is a cylindrical tube placed and secured in the airway during surgery above the tracheotomy tube. The stent holds the graft in place

while it heals so it does not shrink back down. The ENT doctor will decide how long the stent needs to stay in place.

After Surgery

Your child will be cared for and closely monitored on the airway unit after surgery. A speech therapist will work with your child to assist with swallowing and eating after the surgery. You will also be shown changes in your child's care, or review any care that you may want or need. As your child continues to progress with breathing on his/her own, tolerating feedings, and healing overall, he / she will be cared for in the hospital until ready for discharge.

**FOR FURTHER QUESTIONS, PLEASE CALL OUR OFFICE
512-324-2720**