

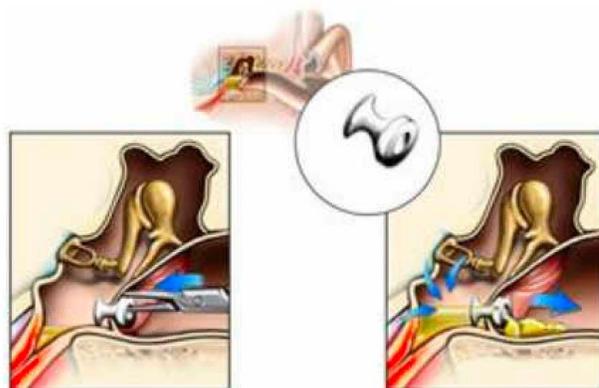
## TYMPANOSTOMY (EAR) TUBES +/- ADENOIDECTOMY

Your doctor has recommended placement of tympanostomy or pressure equalization tubes (PETs). This is to treat fluid behind the eardrums that has collected because of allergies, infections or poor drainage. Usually this fluid drains out through a person's Eustachian tube into the back of the nose. In children, this drainage is often blocked by frequent colds, smaller anatomy and enlarged adenoid tissue. When fluid collects behind the eardrum, it causes hearing loss, fevers, pain, and possible damage to the eardrum. Tympanostomy tubes are a semi-permanent way of preventing this fluid from collecting. It is the most common procedure done in children.

### SURGERY

Tympanostomy tube placement is performed either at the hospital or an outpatient surgery center. A mask is used to provide inhaled anesthesia for sedation, but typically no IVs or breathing tubes are needed. Fasting prior to the surgery is necessary. If your child is sick with an ear infection or cold on the day of surgery, it is often still safe to proceed with the surgery. However, the ultimate determination for safety to proceed will be made by the anesthesiologists on the day of surgery.

On the day of surgery you will arrive at your scheduled time and meet the operating room staff. Once it is time for surgery, your child will come back to the OR with the staff and will fall asleep with a mask containing inhaled anesthesia gas. A microscope is used to see each ear canal, clean any wax and visualize the eardrum. A small cut is then made in the eardrum, any fluid present is suctioned out, and a tiny ear tube is placed along with some antibiotic eardrops.



## **SURGICAL RISKS**

*Short term risks:* After surgery, there can be pain, bloody or yellow drainage, clogging of the ear tubes, and sound sensitivity

*Long term risks:* rarely tubes refuse to fall out and should be removed under mask anesthesia if present for longer than 3 years. Rarely, the tubes can fall out but leave a hole behind in the eardrum. Usually this is fixed with a small procedure under mask anesthesia. The chance of the tubes leaving a large hole that needs a bigger surgery or causing any significant hearing loss is rare. Tubes can also become infected or cause drainage requiring antibiotic drops or oral medications. Occasionally people with ear tubes need to protect their ears from water to prevent these issues.

## **POSTOPERATIVE CARE**

After surgery you will meet your child in the recovery room. Don't be surprised if they are cranky, disoriented, or in pain, these are normal experiences after surgery. Expect to go home once they are drinking and awake. At home, most children are only uncomfortable for about 24 hours. Children's acetaminophen (Tylenol) and/or ibuprofen (Motrin, Advil) can be used to treat this.

**It is normal for the ears to have a small amount of bloody drainage for a few days post operatively.** A small piece of cotton may be needed for absorption. You will typically be asked to use prescription antibiotic eardrops in each ear twice a day for up to one week. Roll the dropper bottle around in the palm of your hand to warm the drops prior to inserting them in the patient's ear. To place the drops, tilt the patient's head to the side and place the prescribed number of drops in the ear canal. Try to keep the head tilted for a few minutes, then place a cotton ball at the opening of the ear canal to catch any extra fluid and repeat on the other side. Some patients may complain that these drops sting, if this occurs, simply discontinue the drops and call for instructions during normal business hours. At home, most children are only uncomfortable for about 24 hours. **The pain can usually be relieved with Tylenol.** For the first day or two the patient may also react with alarm to loud noises because hearing is often abruptly improved. **All ordinary activities including work, school, non water-based athletics and travel are permitted within 24 hours after your procedure.**

**Swimming is permitted after 1 week from surgery.** After this, **no special precautions during bathing or swimming are required long term**, as per the most recent guidelines from the American Academy of Otolaryngology. In rare situations, however, water getting deep into the ear may cause an infection (pain, drainage). This is usually not a problem with small children who splash around during bath time, but can become an issue if the ears are submerged. If your

child's ears seem to be sensitive to water, water can be kept out of the ear during bath time simply with cotton balls covered in Vaseline placed in the outer portion of the ear. For swimming, various types of ear plugs are available in most drug stores. For more avid swimmers, we recommend reusable custom ear molds made by our audiologists in the office. Call the office during normal business hours only if the pain or drainage develops after swimming. You will likely be started on antibiotic ear drops.

The initial post-op appointment will be made approximately 2-4 weeks after the surgery. The doctor will want your child to be seen at least every three to six months as long as the tubes remain in place in order to monitor for when the tubes will come out and catch any potential complications early

### **IF ADENOIDECTOMY IS PERFORMED:**

During the post-operative period you might observe:

1. **Pain: A moderate amount of throat discomfort is to be expected.** Sometimes it is more painful on the second day than immediately after the operation. **Most children do quite well with children's Tylenol or Motrin every 4-6 hours. These medications can be used individually, or alternating every 3 hours.** For older children, sometimes the doctor will prescribe a narcotic pain medication. Signs of pain in small children can include refusal to open mouth or swallow, refusal to eat or drink, crying and irritability.
  - a. **Ear pain:** This is very common after adenoids are removed. This is known to as "referred" pain from the throat that the body misinterprets as coming from the ears.
  - b. **Neck stiffness/pain:** Neck muscles near the adenoids may become inflamed after surgery and cause discomfort. Pain medication should help but if this persists after 5 days, please call the office.
2. **Bleeding:** Bleeding is uncommon after removing adenoids. A few drops of bleeding from the nose or in saliva is acceptable but bright red blood should not be seen.
3. **Swelling of the tongue, palate (roof of the mouth), or uvula (punching bag in back of throat):** Swelling of these structures may cause some discomfort but usually resolves in a few days. Sleeping sideways (as opposed to flat on the back) or with the head elevated can alleviate some of the nighttime symptoms.

4. **Voice changes:** Removing the adenoids alters the resonating chamber of the airways and can result in a less nasal voice that is also frequently perceived as squeaky or higher pitched.
5. **Persistent snoring:** Snoring may persist for a few weeks as a result of swelling at the surgical site.
6. **Foul-smelling breath:** Bad breath frequently occurs but should clear up around a week.
7. **Low-grade fever:** 99-101 degree temperatures are common within the first 72 hours. This usually improves with time and oral intake and is part of the body's natural response to surgery.
8. **Leakage of air or liquid from the nose with speaking or swallowing:** The palate muscles are typically very sore and may have some difficulty closing off the nose from the mouth. This is typically temporary, lasting a few days. On rare occasion, this may last for a few months.
9. The initial post-operative appointment will be scheduled for 1-2 weeks after the procedure with the Physician Assistant.