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## **MYRINGOTOMY AND EAR TUBES**

### ***GENERAL INFORMATION***

Fluid in the middle ear of children is common and is usually a result of eustachian tube dysfunction. The eustachian tube connects the back of the throat behind the nose with the middle ear and allows air to enter the middle ear so that the ear may function normally. We have all experienced situations in which the eustachian tube has not worked well. The pressure we feel in our ears when riding the elevator in a tall building or during takeoff or landing in an airplane is a result of the eustachian tube temporarily not allowing the air in the middle ear to equalize with the surrounding environment.

In children, the eustachian tube may not work as efficiently as in adults for considerable periods of time. In addition, the adenoids are located near the nasal opening of the eustachian tube and may prevent normal functioning of the tube. Allergies and sinus infections sometimes cause congestion and prevent the tube from opening properly. All of these factors will prevent air from entering the middle ear. When this occurs over a period of time, the air in the middle ear is absorbed by the body and replaced by a fluid. The fluid itself does not cause any damage to the ear although its presence can impair hearing as well as serve as a medium for bacteria to grow. When bacteria are present it causes an infection which is treated with an antibiotic. Although the antibiotic will cure the ear infection, if the fluid is not cleared from the middle ear space then another infection can develop once the child is off the antibiotics. After repeated infections the bacteria may become resistant to certain antibiotics so another antibiotic is used. In some case, the fluid may resolve along with the infection, but because of the marginal function of the eustachian tube, a cold or other disturbance may lead to another ear infection. PE tubes allow air to enter the middle ear space. Hopefully by the time the tube is extruded the eustachian tube will be better developed and will function normally.

### ***EAR TUBES***

Your child's doctor has recommended surgery for placing pressure equalizing (PE) tubes in your child's ears. The tiny PE tubes will probably keep your child from having so many ear infections. They may also help our child hear better. However, PE tubes are not a magic cure for all ear problems. (PE tubes)

## ***WHAT HAPPENS DURING SURGERY***

The operation is usually done as a "day surgery" with the child arriving a few hours before surgery and leaving later that day. Your child will be under general anesthesia during this surgery. The surgeon will make a tiny opening or incision in the ear drum. This is called a myringotomy. The surgeon will suction out any fluid that has built up behind the ear drum. Then, the tiny PE tube is inserted into the opening. The PE tube keeps the opening from closing up. Through the opening, air can enter the area behind the ear drum. This helps the ear stay healthy. You will not see any scars. Your child will look the same after surgery.

## ***SPECIAL PRECAUTIONS WHEN A CHILD HAS EAR TUBES***

### **Bath Time**

Do not let your child put his or her head under water at bath time. When you wash your child's hair, use cotton balls sealed with Vaseline or ear plugs to keep water out of the ear. Please do not use Silly Putty in your child's ears. You can buy earplugs at many drug stores. Follow the instructions that come with the ear plugs. (Click to see a picture of two types of earplugs.)

### **Swimming**

Do not let your child go swimming until his or her doctor has said it is okay. Children may swim in pools (clear, chlorinated water) but not in springs, lakes or oceans. They should not dive or swim more than 10 feet under the surface.

## ***PREPARING FOR SURGERY***

If your child gets a chest cold or fever during the 5 days before the surgery, please call the otolaryngologist (ENT doctor). Your doctor may need to reschedule the surgery for your child's safety.

## ***WHAT TO EXPECT AFTER SURGERY***

How will my child feel after surgery?

When your child wakes up, he or she may not feel good. Your child may be upset, confused, nauseated, or dizzy. This is an effect of the anesthesia.

The incision in the eardrum should not hurt. Loud noises may cause your child some discomfort at first. If your child is uncomfortable, you can give him or her acetaminophen (the medicine in Tylenol.)

Q. What if my child has a fever afterwards?

A. Many children will have low-grade fevers between 99 degrees F and 100 degrees F. you can give acetaminophen to your child if you wish. If your child's fever stays over 101.5 degrees, please call your ENT doctor.

Q. How much drainage should there be?

A. You can expect a thin, pink, watery drainage from your child's ear. This may last up to 3 days. This is usual. If this drainage lasts longer than 3 days, call your ENT doctor. If the drainage becomes foul smelling, thick, yellow, or green, please call your ENT doctor. Your child's doctor may give you some antibiotic ear drops to use for the first 3 days after surgery. If the drops cause pain, you can stop using them.

## ***ACTIVITIES***

Encourage your child to play normally the day after surgery. Airplane travel is all right, too. (Your child will be comfortable because the PE tube equalizes the pressure on both sides of the ear drum).

## ***EATING AND DRINKING***

Your child can eat regular food as soon as he or she feels like it. Usually, your child's appetite will return to normal within 24 hours. You will get special feeding instructions if your child has a cleft lip or palate repair during the same surgery. Hold your infant in an upright position when you bottle-feed. This will keep fluid from going up the back of your infant's nose and possibly causing ear problems.

## ***RETURN VISIT TO THE DOCTOR***

Your child will need to see the doctor 3 to 4 weeks after surgery. This appointment may be made for you at the time of surgery. Usually, the PE tubes will stay in place for at least 3 months. For some children they stay in for over a year. The tubes are so small you may not notice when they come out. Therefore, it is important to return for a check up every 6 months or as directed by your child's doctor.

## ***EAR DRAINAGE AND INFECTIONS***

If your child's tubes are open and working, and the ears become infected, they will drain mucus that can vary in consistency and color: clear, yellow, green, brown, or even bloody. If there is no drainage, infection is very unlikely. Pulling at or scratching at the ears is not a reliable sign of infection. If you are not sure whether the amount of drainage is normal, it is probably not an infection; infections usually have continued noticeable discharge. Infections are usually not serious and can frequently be managed over the phone. Because many of the bacteria causing ear drainage, like those causing "swimmer's ear", are resistant to most oral antibiotics, your doctor may prescribe ear drops, perhaps along with an oral antibiotic. The ear drops are important. If there is a lot of "gunk" in the ears, and the drops are not penetrating, it is often helpful to wash the ear out with a solution of one-half white vinegar and one-half water (mixed so it is approx. body temperature). A syringe or a baby "nose suction bulb" is useful for this. Do not use peroxide in ears with open tubes – those agents can be quite painful.