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## EAR INFECTIONS AND TYMPANOSTOMY TUBE SURGERY

Otitis media (middle ear infection) is the most frequent diagnosis made in children. Ear infections can be unpleasant, causing pain, poor sleep, and other symptoms. Treatment typically includes antibiotics, but even after treatment, fluid may persist in the middle ear temporarily reducing hearing. In severe cases, chronic fluid in the middle ear may lead to speech delay. Normally the middle ear is ventilated by air flow up the Eustachian tube from the nose, but in some children this structure is not yet mature, leading to middle ear fluid and infection. The problem is even worse when children get colds.

Tympanostomy Tube (“Tubes”) insertion is the most common surgery performed on children. In some cases, adults also may require tube placement. Common reasons for tubes include repeated ear infections, and persistent fluid accumulation (especially if there is hearing loss or language delay).

Surgery is performed down the ear canal using an operating microscope. A tiny incision (myringotomy) is made in the eardrum and a very small plastic tube is placed through the eardrum to ventilate the middle ear, bypassing the need for a functioning Eustachian tube. After surgery, the middle ear remains ventilated through the tympanostomy tube, preventing recurrence of infection, fluid and hearing loss. Usually both ears are treated. In about 9-14 months the tubes fall out of the eardrum into the ear canal and the eardrum heals. Eventually, the tube may fall out of the ear canal, or it can be removed in the office. Fortunately, most children outgrow their ear problems after one set of tubes. Some children continue to have problems, possibly requiring additional treatment. Repeat tube placement may be done in conjunction with removal of adenoid tissue to further improve function of the Eustachian tubes.

Tube surgery is performed with the child asleep under brief anesthesia at the hospital. A parent may accompany the child into the operating room and remain until s(he) is asleep—usually just a few minutes. This makes the experience less frightening for the child and we encourage your participation. The surgery takes about 5 minutes with the entire operation taking 15-20 minutes on average. Your child will spend 30-60 minutes in the recovery room prior to being brought back to the pediatric floor where he/she will spend 1-3 hours before going home.

After the surgery, eardrops are given by lying the child on their side, pulling the ear up, placing the drops, then massaging the tissue (tragus) in front of the ear hole to push the drops through the tube. Repeat on the other ear. The usual dose is 3 drops 3 x per day, sometimes more. You may see a small amount of blood or clear ear drainage or no drainage at all.

While your child has tubes in place avoid getting water in their ears. No ear plugs are required except when swimming underwater. (plugs are available through our office) If your child gets water in his/her ear, most of the time no problem occurs. Occasionally, children will develop a middle ear infection which you will notice as drainage coming out of the ear canal.

You will have a postoperative visit about 2 to 4 weeks after surgery then every 6 months. If your child’s tubes are functioning, they will likely have better hearing and many fewer infections. If an ear infection does occur, you will be able to diagnose and treat it more easily. Ear infections in children with tubes show up as discharge from the ear. These infections will usually respond to antibiotics eardrops as you used after surgery.