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# BILATERAL MYRINGOTOMY AND TUBES A Pre-Operative and Post-Operative Guide for Parents and Patients

## SOME BACKGROUND INFORMATION

## 1. What is a bilateral myringotomy and tubes procedure?

A myringotomy is a surgically placed tiny incision in the eardrum. A small plastic tube will be inserted into the eardrums to keep the middle ear aerated for a prolonged period of time. The procedure allows for fluid, usually thickened secretions, to be released from the middle ear. These ventilating tubes usually remain in place for about 6 months but may stay in place for up to three years. Eventually, they will move out of the eardrum and fall into the ear canal. The tubes may be removed during a routine future office visit or it may simply fall out of the ear without your child realizing it. Tubes that remain in place for 3 years will need to be removed by your doctor. This procedure may need to be performed in the hospital or surgery center with anesthesia.

# 2. When are bilateral myringotomy and tubes appropriate?

When children are diagnosed with recurrent ear infection or persistent fluid in their ears, bilateral myringotomy and tubes may be recommended.

## 3. What is otitis media?

Otitis media is an inflammation of the area behind the eardrum. This area is called the middle ear. Otitis media is a bacterial ear infection that produces pus (infected fluid) within the middle ear. Bilateral myringotomy and tubes help the pus drain from the ear and keep the ear ventilated.

# 4. Warning signs of an ear infection:

- a) ear pain.
- b) ear fullness.
- c) hearing loss.
- d) irritability and fussiness in younger children.
- e) difficulty in sleeping, feeding or hearing for younger children.
- f) fever.

## PREPARING FOR SURGERY

1. What medications should and should not be taken prior to surgery?

Aspirin or aspirin based mediations (Motrin, Advil, Bufferin, Nuprin, Aleve, Ibuprofen, all multivitamins etc.,) should not be taken for two weeks prior to, and after, the surgery. Contact our office as to whether medication regularly taken should be taken the morning of surgery.

## 2. What can the patient eat and drink before surgery?

All patients undergoing surgery are allowed to ingest only clear liquids, up to 8 ounces, after midnight prior to the morning of the surgery. Adult patients must stop drinking liquids 4 hours before arrival to the hospital, while children must do so 3 hours prior to arrival. Clear liquids consist of apple juice, water, clear broth or Jell-O. No solids, juice with pulp or milk products are to be given after midnight prior to the morning of surgery. In the morning, patients may brush their teeth, but cannot swallow any water.

# 3. Mandatory blood tests:

There are no mandatory blood tests for myringotomy and tube surgery. All children are required to get a letter of medical clearance from their pediatrician. All clearances must be faxed into our office at 212 996-2514 no later than three days before the surgery date.

# 4. What should I tell my child about the procedures?

It is important that you discuss the surgery with your child before the day that it is to take place. Reassure your child that on the day of surgery that you will be with them as they go off to sleep and that there will be no pain felt at all during this time. There is very little discomfort following myringotomy and tube placement. Make sure your child knows that you will be with him/her and that you will make sure everything is okay. Explain to your child that this surgery is going to help keep him/her healthier in the future. This procedure will also help your child hear much better. Sesame Street, Mr. Rogers and Curious George all have wonderful children's' books about going to the hospital. If you can, get a copy of these books and read them with your child before the day of surgery. Remember to relax! The calmer you feel about this procedure, the calmer your children will be on the day of surgery. Please note that there is a special pre-operative program in New York-Presbyterian Hospital to help prepare you and your child for surgery. You can obtain information about the program from our office.

## **5.** Clothing and accessory restrictions:

For both pediatric and adult patients, contact lenses and metal earrings should not be worn on the day of surgery. If you wear them to the hospital, you will be asked to take them out before the surgery is started. Patients should abstain from wearing any makeup or earrings.

# THE MORNING OF SURGERY, THE PROCEDURE AND RECOVERY

## 1. Arriving and signing in:

Patients are generally scheduled for surgery at either New York Hospital, Manhattan Surgery Center, or Manhattan Ear Eye and Throat Hospital. If you are having surgery at New York Hospital, when you arrive at the hospital, you will go to the 9th floor of the Starr building, room L-919, the Ambulatory Surgery Center, where you and your child will sign in. If you are scheduled at Manhattan Surgery Center or Manhattan Ear Eye and Throat Hospital, you will go t the main reception desks at 619 West 54<sup>th</sup> Street or 210 East 64<sup>th</sup> street, respectively. Once you are signed in, your child will go into a changing area in the back room and change into hospital pajamas. Generally, with the approval of the anesthesiology staff, one parent is allowed to accompany the child to the operating room (OR.) The parent will need to change into a hospital jumper at the same time and place that the patient puts on his/her pajamas. The jumper fits right over your clothes. On the day of your child's surgery, the parents going up to the OR should wear pants, as opposed to a skirt if possible, for easier wear. Please wear closed toe shoes if possible.

## 2. The waiting room:

Once the patient is signed in and has changed into pajamas, you and your child will be brought to the waiting room. Usually you will wait in this area for about 45 minutes before your child is brought up to the OR. While there are some toys in the waiting area, you should bring a favorite toy or stuffed animal if your child has one. You may also bring a video tape or iPad that can be played for your child in the waiting room. Once the doctors in the OR are ready for your child, one parent or guardian and the patient will be escorted to the OR.

# 3. What happens in the operating room:

Children are placed asleep by general anesthesia administered via a mask. It is important for the parents to discuss this with their child, as this procedure could be frightening if your child is unaware of what will happen. Tell your child that you will be present throughout this entire phase of anesthesia induction. Once the patient is asleep, parents must leave the OR. You will be reunited with your child once the procedure is finished and they are in the recovery room (PACU.) Surgery will take approximately fifteen minutes. In most cases, parents will be asked to wait in a waiting room during surgery.

# 4. The who, what and where of the pediatric recovery period in the post-anesthesia care unit (PACU):

Upon completion of surgery, children will be brought to the PACU. Both parents will be brought to the PACU, in most cases, prior to the child's arrival. Parents will be allowed to be with the child until discharge from the facility. On arrival to the PACU, children will have humidified oxygen directed towards their face to help alleviate the effects of anesthesia. Vital signs (blood pressure, pulse, respiration) will be taken every 20 minutes in the PACU. Temperatures will be taken every hour on children. Your child may be placed on a cardiac monitor temporarily to observe cardiac rhythm . Pain medication will be administered as needed. Most children, under the age of 5, will have received a Tylenol suppository in the OR. Your child will be asked to stay until they are able to tolerate fluids. This usually happens after about one half hour to one hour.

## **DISCHARGE INSTRUCTIONS**

### 1. Limit activity:

After discharge from the hospital or ambulatory unit, you are to go home immediately. Children should remain quiet the first day and out of school the day of surgery. On the day of anesthesia, direct parent supervision is advised. You and your child should have a day of quiet activities: Watch television, read, play board games. Do not play any contact sports, swim, climb, bike-ride, roller or ice skate, do gymnastics or other strenuous activities. The day following surgery, your child should be recovered and able to resume normal activities.

#### 2. Diet:

Although there is no specific diet, we recommend light meals to start as your child may feel slightly nauseated from the anesthesia. In very rare cases, children may vomit one or two times immediately after surgery. However, if vomiting persists, please contact our office.

# 3. Medication for pain and infection prevention:

- a) Your child should experience minimal pain from this surgery. Tylenol is usually sufficient. Tylenol should be administered every four hours as needed.
- b) You will be given ear drops to use after surgery to decrease the incidence of infection. You should put 5 drops both ears twice a day for the first three days following surgery. The ear drops may hurt the first time used. **Please give your child Tylenol 20 minutes prior to administering the first drops.**

c)Do not use aspirin (Motrin, Advil, Bufferin, Nuprin, Aleve, Ibuprofen etc.,) or vitamins for one week after surgery. These products may interfere with blood clotting capacity which may lead to bleeding. Read all medication labels carefully to insure that they do not contain aspirin.

# 4. In the event of bleeding:

If you notice any significant bleeding coming from your child's ears, please call your doctor. There may be a slight oozing of blood from the ears. This is normal. Contact us immediately if bleeding persists or is severe.

## 5. Things to avoid:

Nothing other than drops prescribed by our office should be put in the ear.

## 6. Ventilation tube care:

Significant amounts of water must not enter into the ear canal while the tubes are in place. This usually does not occur with normal bathing and swimming. Diving and swimming under the water deeper than three feet increases the chance of water entering the ear.

7. You will need to make an appointment for three weeks after the scheduled surgery. Please call the office after surgery to set up this visit. Tubes will be checked every three months during office visits to be scheduled after this preliminary three-week checkup.

# COMMON CONCERNS, QUESTIONS AND POSSIBLE COMPLICATIONS

\* If there are any concerns or questions regarding your post-operative care, please read the following post-operative care instructions and information below. If further information is required, please contact our office:

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# 1. Why is the patient nauseous and/or vomiting?

Since this is a short procedure, nausea and vomiting are rare. We will give your child medication in the hospital to control the vomiting if it occurs. If your child is vomiting at home, there are things you can do to help. Encourage rest. Do not give any fluids or food for 30 minutes and then slowly start to give small amounts of clear fluids. If vomiting persists 24 hours after surgery, or is severe, please call our office.

# 2. Is it normal for the patient to be drowsy or dizzy after the surgery?

Yes, after the operation, your child may be drowsy and/or dizzy. This will usually improve prior to the time of your child's discharge. Because your child may be a little unsteady at the time of discharge and the 24 hours after surgery, it is important to support him/her until your child can walk safely. Supervise your child to prevent falls or injuries during this time.

# 3. My child's ear is draining fluid, what should I do?

Ear draining may occur immediately after the procedure or at any time while the tubes are in place. Yellow clear fluid or mucous may drain for several days after the surgery. It is not unusual to see a bloody discharge following surgery. Cotton can be kept in the ear canal and should be changed as needed to keep dry. If drainage occurs in the future, please start the ear drops prescribed at the time of surgery and use them for three days. If the drainage continues, please contact our office.

# 4. The fluid draining from the ear has a foul odor. Is this normal?

Foul odor is not normal and should be monitored. If profuse, foul-smelling discharge drains from the ear, an infection is indicated. When this occurs, you should begin by using your ear drops for 3 days. Give your child Tylenol 20 minutes before administering the first drops as this first time might sting. If drainage continues beyond 3 days, please contact our office to determine if additional medicine and/or an office visit is necessary.

**5.** My child complains of pain when I put drops in. Is there anything I can do to prevent this pain? Yes, there are steps you can take to alleviate your child's pain. If your child is having difficulty with the drops, please administer Tylenol 20 minutes before placing the drops. Also, warm the drops to room temperature in your hands or pocket. This should help prevent the pain or stinging that may occur from

the ear drops.

# 6. Can my child go swimming?

Swimming is not a problem if the correct precautions are taken. Your child does not need any ear plugs if they do not put their heads more than three feet under the surface of the water. If your child dives or swims deeper than three feet beneath the water, plugs should be used. Plugs should be used until the tubes have fallen out of the ears.

# 7. Should bathing or showering be regulated?

Bathing and showering are perfectly fine after tube placement. While showering is tolerated, no water should be directed into the ear canal from a shower head as this may cause fluid to leak into the middle ear.

## 8. What are the rules for airplane travel?

Traveling on a plane can be done immediately after surgery and should not pose any difficulties for your child.

# 9. How can I tell if my child's tubes have fallen out?

There isn't any good indicator of the tubes disengaging. Occasionally, there will be a small amount of blood which drains from the ear. This is from the rubbing caused by the tubes as they dislodge and move into the ear canal. This blood can be a sign that the tubes have fallen out, but you will still need a doctor's visit to remove the tubes from the ear canal and to check on your child's progress. In most instances, you will be unable to determine if the tubes have fallen out or not and will need to arrange checkups for your child.

# 10. What should be done if the tubes remain in place for more than 3 years?

Tubes should be removed at the three year mark. If the tubes have not fallen out on their own, please make an appointment with us to have your child's ear's examined. Tubes are removed, if still in the eardrum, with a light level of anesthesia in the operating room.