

Eardrum surgery

An eardrum with a hole before tympanoplasty and afterwards, with a graft repair

.During tympanoplasty, a healthcare provider repairs a hole in the eardrum by placing a graft

?What is tympanoplasty

Tympanoplasty is surgery to repair a hole in your eardrum. Your eardrum is a membrane that separates your ear canal from your middle ear. It vibrates when sound waves strike it, making sounds louder so you can hear them. But having a hole keeps your eardrum from vibrating. This can .make it harder to hear

You or your child may need this surgery if an injury or long-term ear infection tears this membrane. Small tears may heal without surgery with the help of ear drops or antibiotics. But if your eardrum doesn't heal after two to three months, you may need tympanoplasty to prevent problems like .hearing loss, more ear infections or ear drainage

During this procedure, a specialist called an otolaryngologist (ENT) patches the hole in your eardrum. .Although tympanoplasty is a major surgery, you'll likely get to go home the day of your procedure

Treatment Details

?How should I prepare for this procedure

Before surgery, your healthcare provider will review your medical history. They'll check your middle :ear and hearing. They may

Look at your eardrum with an otoscope: This helps them see how big the hole is and where it is. It .shows whether your eardrum is inflamed or leaking fluid

.Give you tests: You may need a hearing test and a test that checks how your eardrum is working

Your provider will also explain what happens during the procedure and tell you how to prepare. :They'll tell you

(When to start fasting (no food or liquids

Which medicines you should or shouldn't take

What kind of help you'll need during recovery (for example, you'll need someone to drive you home (after surgery

?What happens during tympanoplasty surgery

Your healthcare provider will give you general anesthesia that puts you to sleep. You may also get .antibiotics to reduce the chance of an infection

Once you're asleep, your provider will access your eardrum. The process depends on the :tympanoplasty technique they use

Transcanal: Your provider sends a flexible tube with operating instruments at the end through your ear canal until it reaches your middle ear. This type doesn't require incisions to reach your eardrum .((most common

Postauricular: Your provider makes a curved cut (incision) behind the crease in your outer ear .((auricle

.(Endaural: They make an incision above your ear canal (least common

The next steps involve patching the hole with a graft. This means your provider will use tissue from a different part of your body to patch your eardrum. Sometimes, they use synthetic tissue. If they use :tissue from your body, they'll

Collect the graft material: They'll remove tissue from one of two places in your body. They may collect it from the connective tissue that lines the muscle located near your temples. Or they may .use cartilage from the bump in front of your ear

.Place the graft material: They'll position the tissue under your entire eardrum or just the hole

Place packing material to secure the graft: They'll place foam under and over the graft. This material holds the graft in place while your eardrum grows new tissue. The foam dissolves on its own over .time

.Close your incisions: They'll seal any incisions and bandage the area

?How long does this procedure take

Tympanoplasty may take as little as 30 minutes up to several hours. It depends on how much .damage there is inside your ear, how big the hole is and the technique they use

Sometimes, the tiny bones behind your eardrum get damaged, too. If this happens, your provider will need to fix them. Sometimes, growths called cholesteatomas form behind a ruptured eardrum. .Your healthcare provider may have to remove them. This adds to the total procedure time

?What are the potential benefits and risks of this procedure

Tympanoplasty repairs your damaged eardrum. It can help restore your hearing. The patch also prevents germs from entering your middle ear and causing infections that lead to drainage from .your ear

And tympanoplasty complications are rare. The most common complication is graft failure. This means that the eardrum patch doesn't solve the problem. Your eardrum may develop another hole during surgery, or your hearing may get worse

Again, though, negative effects are uncommon. Studies show tympanoplasty successfully treats 90% of people. But this success rate depends on the size and location of the hole

Recovery and Outlook

?What happens after tympanoplasty

Most people go home after surgery. Or your healthcare provider may have you stay overnight at the hospital so they can make sure you're healing OK

:Over the next few days, you may notice

Slight bloody discharge

Mild ear pain or pressure

A crackling or popping sound in your ear

(Difficulty hearing (this may last up to six weeks

You may have moderate pain for the first few days after surgery. Most people manage it with over-the-counter pain relievers. But let your healthcare provider know if OTC medicines aren't helping

?What is the recovery time

It can take 10 days to two weeks to recover from tympanoplasty. This means that the discomfort and surgery side effects have gone away. But it may take three or more months to get your full hearing back

Keep a close watch on how your child is doing after tympanoplasty. If they're feeling OK, they should be safe to return to school three to five days after surgery. Follow their healthcare provider's guidance

?How should I care for myself after tympanoplasty surgery

Follow your healthcare provider's instructions about at-home recovery. Here are some general dos and don'ts after tympanoplasty

Take medications as directed. You may need to take antibiotics as a tablet or as ear drops. Don't stop taking them until your provider tells you to

Use a cotton ball to manage drainage. Place a cotton ball in your ear if you notice blood coming from your ear. Call your provider if you have more bleeding than you expect

Keep your ear dry. Your provider may tell you not to shower or wash your hair for the first few days after your surgery. When you can shower, place a cotton ball soaked with petroleum jelly (Vaseline®) in your ear to keep water out

Don't blow your nose for at least three weeks after surgery. If you have to sneeze, keep your mouth open

Take it easy. Get plenty of rest and avoid being too active. Your provider may tell you not to lift anything more than 10 pounds for a certain time period. Children should sit out PE class for about two weeks

Avoid activities that create ear pressure. This means not traveling in airplanes or going swimming for about a month after surgery

When should I call my healthcare provider

You'll see your provider about two to three weeks after surgery. They'll look at your eardrum to see how it's healing. Within two or three months, you may need to come back for your provider to check your hearing

In the meantime, contact your provider if you notice

A change in your sense of taste or numbness in your face

Pus or fresh blood (bright red) coming from your ear or your incisions

Ringing in your ears

Signs of an infection, like a fever and warmth or redness near your incisions

Worsening hearing or ear pain

Get emergency care if you have

A fast heartbeat

Difficulty breathing or shortness of breath

Dizziness or problems with your sense of balance

A note from Cleveland Clinic

Anyone can rupture an eardrum. All it takes is going too deep — or with too much enthusiasm — when you clean your ears. Your eardrum can rupture if you develop a middle ear infection. Many times, a hole in your eardrum will heal on its own. But if it doesn't, you may need tympanoplasty

surgery to help you hear and stay connected to the world. Your healthcare provider will let you know if surgery is the best solution for you