Ear Surgery: Stapedectomy

What is a stapedectomy?

A stapedectomy is a procedure done to remove all or part of the stapes. The stapes (also called the stirrup) is a small, stirrup-shaped bone in the part of the ear called the middle ear. The stapes helps you hear by transmitting sound vibrations to the inner ear. After it is removed, the stapes is replaced with tiny plastic or metal parts.

When is it used?

This procedure is done when your hearing nerves are functioning well but you are not hearing well in one ear. Your health care provider may suspect that the bottom part of the stapes (called the footplate) is kept from moving freely by an overgrowth of surrounding bone. This is a condition called otosclerosis. It is a common cause of hearing loss in young adults. Replacing the stapes may help you hear better.

Examples of alternatives include:

- using a hearing aid
- choosing not to have treatment and living with your hearing loss.

You should ask your health care provider about these choices.

How do I prepare for a stapedectomy?

Plan for your care and recovery after the operation, especially if you are to have general anesthesia. Find someone to drive you home after the surgery. Allow for time to rest and try to find people to help you with your day-to-day duties.

Follow your health care provider's instructions about not smoking before and after the procedure. Smokers heal more slowly after surgery. They are also more likely to have breathing problems during surgery. For this reason, if you are a smoker, you should quit at least 2 weeks before the procedure. It is best to quit 6 to 8 weeks before surgery. Also, your wounds will heal much better if you do not smoke after the surgery.

If you are taking daily aspirin for a medical condition, ask your provider if you need to stop it before your surgery. If you need a minor pain reliever in the week before surgery, choose acetaminophen rather than aspirin, ibuprofen, or naproxen. This helps avoid extra bleeding during surgery.

Follow any other instructions your provider gives you. If you are to have general anesthesia, eat a light meal, such as soup or salad, the night before the procedure. Do not eat or drink anything after midnight or the morning before the procedure. Do not even drink coffee, tea, or water.

What happens during the procedure?

You will receive a local or general anesthetic. A local anesthetic is a drug that numbs the part of your body where you will have the surgery. If you have a local anesthetic, you may also be given a sedative to help you relax. A general anesthetic will relax your muscles, put you to sleep, and prevent you from feeling pain during the operation.

Your health care provider will make a cut in the ear canal near the eardrum. Your provider will gently lift the eardrum and look at the structures in your middle ear. He or she will remove all or part of the top of the stapes and remove the footplate or create a hole in it with a laser. An artificial stapes is then inserted to reconnect the hearing bones to the inner ear. Your provider will put the eardrum back in place and hold it in place with packing that will eventually dissolve.

What happens after the procedure?

You may be in the hospital for a day, depending on your condition. You can go back to work when your health care provider says you can, but avoid vigorous activity and heavy lifting for the next couple of weeks while your ear is healing. Do not blow your nose or get your ear wet until the ear has completely healed. You may be dizzy for the first day or two after the surgery, but the dizziness should go away quickly.
Ask your health care provider what other steps you should take and when you should come back for a checkup.

**What are the benefits of this procedure?**

This procedure improves hearing in more than 95% of cases.

**What are the risks associated with this procedure?**

- There are some risks when you have general anesthesia. Discuss these risks with your provider.
- A local anesthetic may not numb the area enough and you may feel some minor discomfort. Also, in rare cases, you may have an allergic reaction to the drug used in this type of anesthesia. Local anesthesia is considered safer than general anesthesia.
- After the operation, you may be dizzy or have ringing in your ear.
- If a nerve in your ear is bruised or damaged, you may have a limited sense of taste or a metallic taste on your tongue. These symptoms last longer than 6 months in about 5% of the people who have a stapedectomy.
- Your hearing may not significantly improve.
- You may have infection or bleeding.
- You may need surgery again in the future to tighten the artificial stapes and improve your hearing.
- You may develop a hole in your eardrum that might require another operation.
- Rarely, you may lose all hearing in that ear.
- Rarely, you may have long-term dizziness.

You should ask your health care provider how these risks apply to you.

**When should I call my health care provider?**

Call your provider right away if:

- You have a fever over 100°F (37°C).
- You cannot stand up because of dizziness.
- You have drainage from your ear.
- You have uncontrollable pain.
- You have uncontrollable nausea or vomiting.

Call during office hours if:

- You have questions about the procedure or its result.
- You want to make another appointment.

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