Ruptured Eardrum

What is a ruptured eardrum?

A ruptured eardrum is a tear or hole in the eardrum. The eardrum is a thin membrane inside the ear. It separates the outer ear from the delicate structures of the middle and inner ear. Besides protecting the inner and middle ear from cold, wind, earwax, and anything else that might find its way into your ear, the eardrum helps you hear. It receives vibrating sound waves and passes them to the tiny bones in your middle ear.

If you have a tear or hole in the eardrum, the middle and inner parts of your ear are no longer protected and could get hurt. You may lose some of your hearing.

Another name for this problem is perforated tympanic membrane.

What is the cause?

The most common cause of a ruptured eardrum is a middle ear infection. When the infection causes a buildup of pus or fluid in the middle ear, there’s more pressure in your ear. The buildup of fluid can cause the eardrum to burst (rupture) and have a hole or tear.

Injury and sudden pressure changes are also common causes of a ruptured eardrum. For example:

- You can injure and tear your eardrum if you try to clean your ear with a cotton-tipped swab or other object. An injury to the side of the head or a blow to the ear can also tear the eardrum.
- Nearby explosions or changes in altitude when you are in a plane can cause sudden pressure changes in the air. Diving into a pool or changing your depth too quickly while scuba diving can also cause sudden pressure changes.

What are the symptoms?

A hole in the eardrum that has been there for some time usually causes no symptoms other than some hearing loss. When a rupture is caused by a middle ear infection, symptoms may include:

- A sudden sharp pain
- A sudden decrease in pain as the built-up fluid drains out through the tear and stops causing painful pressure on your eardrum
- Discharge from the ear that looks thick and tan or yellow
- Hearing loss

When a rupture is caused by an injury, your symptoms may be:

- General discomfort from the injury
- Hearing loss
- Bleeding from your ear

For a few days after the rupture you may have:
• Some discomfort in your ear (especially in cold or windy weather)
• A sense that something is just not right in your ear

How is it diagnosed?

Your healthcare provider will ask about your symptoms and medical history and examine your ear. Usually your provider can see the tear by looking into your ear with a special light. Sometimes a rubber bulb attached to the light is used to blow a puff of air into the ear to try to see if the eardrum moves when the air reaches it. If there is a hole in the eardrum, it doesn’t move.

How is it treated?

A small hole in the eardrum often heals itself, sometimes within a couple of weeks. During this time your ear needs to be protected from water (for example, in the bath, shower, or pool). Your ear will feel better if you protect it also from cold air.

Your healthcare provider may prescribe antibiotic eardrops to help protect your ear from infection while the eardrum is healing. You may also need to take oral antibiotics. Because the rupture keeps your eardrum from protecting the inner ear as it normally does when it is not torn, do not use any ear medicines except medicines prescribed by your provider for this specific ear problem.

Your provider will want to see you again in a couple weeks. If the hole is large or your eardrum is not healing, you may need surgery to repair it. Your provider can use some of your own tissue as a patch to close the hole. Depending on the size and location of the hole, the repair is done through the inside of the ear (the ear canal) or through a cut behind the ear.

A small tear or hole in your eardrum usually heals within a few weeks. Your hearing will usually get back to normal after the eardrum has healed. If a ruptured eardrum does not heal and is not surgically repaired, you may have permanent hearing loss.

How can I take care of myself?

• Keep your ear dry. Ask your healthcare provider how to keep your ear dry when you bathe or shower and when it’s OK to swim.
• For pain take a nonprescription pain reliever such as acetaminophen or ibuprofen. Nonsteroidal anti-inflammatory medicines (NSAIDs), such as ibuprofen, may cause stomach bleeding and other problems. These risks increase with age. Read the label and take as directed. Unless recommended by your healthcare provider, do not take for more than 10 days for any reason.
• Avoid blowing your nose hard while your ear is healing.
• Follow your healthcare provider's instructions. Ask your provider:
  • How long it will take to recover
  • What activities you should avoid and when you can return to your normal activities
• How to take care of yourself at home
• What symptoms or problems you should watch for and what to do if you have them
• Make sure you know when you should come back for a checkup.

How can I help prevent a ruptured eardrum?

If you have symptoms of an ear infection, such as an earache or feeling of blockage in the ear, see your healthcare provider.

Developed by RelayHealth.

This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.