

Ear Infection - Ruptured Eardrum

Definition

- The eardrum has ruptured and cloudy fluid drains from the ear canal
- Caused by a bacterial infection of the middle ear (the space behind the eardrum)

Health Information

Symptoms

- Cloudy fluid or pus draining from the ear canal is the main symptom
- The cloudy fluid may be blood-tinged.
- Before the drainage happens, usually the child reported an earache. The ear pain decreases after the eardrum ruptures. Reason: the pressure in the middle ear goes away.
- Younger children will cry, act fussy or have trouble sleeping because of pain.
- About 50% of children with an ear infection will have a fever.
- Symptoms of a common cold are often present. This includes a runny or congested nose, and a cough.

Diagnosis

- Normally a doctor can diagnose a bacterial ear infection by looking at the eardrum. It will be bulging and have pus behind it.
- If the eardrum ruptures, the eardrum can't be seen because it's covered with pus. So the presence of the discharge makes the diagnosis.

Cause

- In 5% to 10% of bacterial ear infections, the eardrum will rupture. This means it develops a small tear or hole in it. This is from the buildup of pressure in the middle ear.
- The ear then drains cloudy fluid or pus.
- This small hole most often heals over in 2 or 3 days.
- Ear infections peak at age 6 months to 2 years. They are a common problem until age 8.
- The onset of ear infections is often on day 3 of a cold.
- How often do kids get ear infections? 90% of children have at least 1 ear infection. Frequent ear infections occur in 20% of children. Ear infections are the most common bacterial infection of young children.

Care Advice

1. Overview:

- Pus draining from the ear canal means the eardrum has ruptured. This occurs in 5 to 10% of ear infections.
- Discharge can also occur if your child has ear tubes and an ear infection.
- Most often, the small tear heals quickly after antibiotics are started.
- Here is some care advice that should help.

2. **Antibiotic by Mouth:**
 - Bacterial ear infections need a prescription for an antibiotic.
 - The antibiotic will kill the bacteria that are causing the ear infection.
 - Give the antibiotic as directed.
 - Try not to forget any of the doses.
 - Give the antibiotic until it is gone. Reason: To stop the ear infection from flaring up again.
3. **Fever:**
 - For fevers above 102° F (39° C), give acetaminophen (such as Tylenol) or ibuprofen. Note: Lower fevers are important for fighting infections.
 - For ALL fevers: Keep your child well hydrated. Give lots of cold fluids.
4. **Pain Medicine:**
 - To help with the pain, give acetaminophen (such as Tylenol) or ibuprofen. Use as needed.
5. **Cold Pack:**
 - Put a cold wet washcloth on the outer ear for 20 minutes. This should help the pain until the pain medicine starts to work. Note: Some children prefer heat for 20 minutes.
 - Caution: Do not keep a hot or cold pack on too long. This could cause a burn or frostbite.
6. **Ear Discharge:**
 - Wipe the discharge away as you see it. Reason: Pus is irritating to the skin.
 - Do not plug the ear canal with cotton. Reason: Retained pus can cause an infection of the lining of the ear canal.
7. **Limits:**
 - Do not allow swimming in children with a hole in the eardrum. Can return to swimming after your doctor has checked that the hole is healed.
 - **Air Travel.** Children with ear infections can travel safely by aircraft if they are taking antibiotics. For most, flying will not make their ear pain worse.
 - Give your child a dose of ibuprofen 1 hour before take-off. This will help with any pain they might have. Also, during descent (coming down for landing) have your child swallow fluids. Sucking on a pacifier may help as well.
8. **Avoid Eardrops:**
 - Caution: Don't use any eardrops in children with a hole in the eardrum.
 - Reason: Could get into the middle ear and damage hearing.
9. **What to Expect:**
 - Once on antibiotics, your child will get better in 2 or 3 days.
 - The fever should be gone by 2 days (48 hours).
 - The ear pain should be better by 2 days. It should be gone by 3 days (72 hours).
 - The hole heals over in 1 to 2 days. The drainage stops soon after that.
10. **Return to School:**
 - Your child can go back to school when any fever is gone.
 - Your child should feel well enough to join in normal activities.
 - Ear infections cannot be spread to others.

Call Your Doctor If

- Fever lasts more than 2 days after starting antibiotics
- Ear pain becomes severe or crying becomes nonstop
- Ear pain lasts more than 3 days after starting antibiotics
- Ear discharge lasts more than 3 days after starting antibiotics
- You think your child needs to be seen
- Your child becomes worse

Pediatric Care Advice

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