

Ear Infection - Bacterial

Definition

- A bacterial infection of the middle ear (the space behind the eardrum)

Health Information

Symptoms

- The main symptom is an earache.
- 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.
- Complication: In 5% to 10% of children, the eardrum will develop a small tear. This is from the 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.
- Symptoms of a common cold usually also present. This includes a runny or congested nose, and a cough.

Diagnosis

- A doctor can diagnose a bacterial ear infection by looking at the eardrum. It will be bulging and have pus behind it.

Cause

- Blocked eustachian tube, usually as part of a common cold. The eustachian tube joins the middle ear to the back of the throat. Blockage results in middle ear fluid (called viral otitis). If the fluid becomes infected (bacterial otitis), the fluid turns to pus. This causes the eardrum to bulge out and can cause a lot of pain.
- 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.

Prevention of Recurrent Ear Infections

- Avoid exposure to tobacco smoke.
- During the first year of life, try to reduce contact with other sick children. Reason: Most ear infections start with a cold.
- Get all suggested vaccine shots.
- Control any allergies your child might have.

Care Advice

1. Overview:

- Ear infections are very common in young children.
- Most ear infections are not cured after the first dose of antibiotic.
- Most children get better slowly over 2 to 3 days.
- 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 prevent 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. **Eardrops:**
 - If pain medicine does not help the pain, try eardrops. You can use plain olive oil or mineral oil
 - Use 3 drops every 4 hours as needed.
 - Prescription eardrops for pain are sometimes used. (Same dose)
 - Caution: Don't use these kinds of eardrops if your child has ear tubes. Also, don't use if your child has a hole in the eardrum.
7. **Limits:**
 - Swimming is fine as long as there is no drainage from the ear. Also, do not swim if there is a tear in the eardrum.
 - **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.
 - During descent (coming down for landing) have your child swallow fluids. Sucking on a pacifier may help as well. Children over age 6 can chew gum.
8. **Ear Discharge:**
 - If pus is draining from the ear, the eardrum probably has a small tear. This can be normal with an ear infection. Discharge can also occur if your child has ear tubes.
 - The pus (cloudy fluid) may be blood-tinged.
 - Most often, this heals well after the ear infection is treated.
 - Wipe the discharge away as you see it.
 - Do not plug the ear canal with cotton. (Reason: Retained pus can cause an infection of the lining of the ear canal)
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).
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 is not better after 3 days after starting antibiotics
- You think your child needs to be seen
- Your child becomes worse

Pediatric Care Advice

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