

BAROTITIS MEDIA

(Barotrauma)



BASIC INFORMATION

DESCRIPTION

Damage to the middle ear caused by pressure changes. It affects the middle ear, eustachian tube and nerve endings in the ear.

FREQUENT SIGNS AND SYMPTOMS

- Hearing loss (to varying degrees).
- A plugged feeling in the ear.
- Mild to severe pain in the ears, or over the cheekbones and forehead.
- Dizziness.
- Ringing noises in the ear.
- Crying in infants or young children.

CAUSES

- Damage caused by sudden, increased pressure in the surrounding air, such as occurs in the rapid descent of an airplane or while scuba diving. In these activities, air moves from passages in the nose into the middle ear to maintain equal pressure on both sides of the eardrum. If the tube leading from the nose to the ear (eustachian tube) doesn't function properly, pressure in the middle ear is less than the outside pressure. The negative pressure in the middle ear sucks the eardrum inward. Blood and mucus may appear later in the middle ear. This damage is more likely if you have a nose or throat infection when scuba diving or traveling by air.
- Trauma to external or middle ear (boxing, water skiing, accidents, etc.)

RISK INCREASES WITH

- Recent respiratory-tract infection.
- Airplane flight.
- Scuba diving.
- Sky diving.
- High-altitude mountain climbers.
- High-impact sports.
- Infants and young children who have difficulty in dilating the eustachian tube (by swallowing).

PREVENTIVE MEASURES

- Don't fly or scuba dive when you have an upper-respiratory infection. If you must fly anyway, use non-prescription decongestant tablets or sprays. Follow package instructions.
- During air travel, while ascending or descending, suck on hard candy or chew gum to force frequent swallowing.
- Take a moderate-size breath, hold the nose and try to force air into the eustachian tube by gently puffing out the cheeks with the mouth closed (Valsalva maneuver).
- Give an infant a bottle of water or juice while ascending or descending.

EXPECTED OUTCOMES

With treatment, most cases of barotitis media are reversible without permanent damage or hearing loss.

POSSIBLE COMPLICATIONS

- Permanent hearing loss.
- Ruptured eardrum.
- Middle ear infection.



TREATMENT

GENERAL MEASURES

- In most cases, no treatment is necessary and symptoms disappear in hours or days.
- If fluid drains from the ear, place a small piece of cotton in the outer-ear canal to absorb it.
- Rarely, surgery may be required to open the eardrum and release fluid trapped in the middle ear. A plastic tube may be inserted through the surgically perforated eardrum to keep it open and equalize pressure. The tube falls out spontaneously in 9 to 12 months.

MEDICATIONS

- For minor discomfort, you may use non-prescription decongestants and pain relievers, such as acetaminophen.
- You may be prescribed stronger prescription decongestant nasal sprays or tablets. Use for at least 2 weeks after damage.
- Antibiotics, if infection is present.

ACTIVITY

Resume your normal activities as soon as symptoms improve.

DIET

No special diet.



NOTIFY OUR OFFICE IF

- You or a family member has symptoms of barotitis media.
- The following occur during treatment:
 - Severe headache.
 - Fever.
 - Severe pain.
 - Dizziness.
- New, unexplained symptoms develop. Drugs used in treatment may produce side effects.