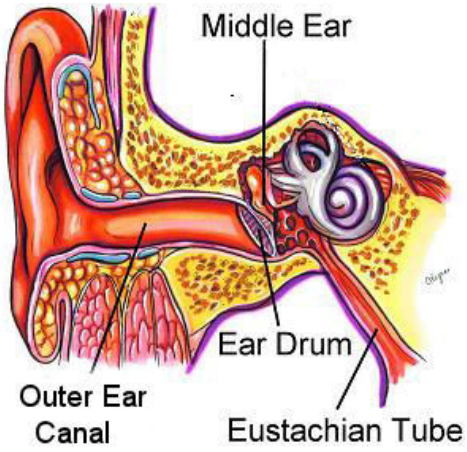
Barotrauma (Pressure Injury) to the Ear

Barotrauma (pressure injury) to the ear is a tissue injury to your ear(s) caused by severe pressure. Being close to an explosion or blast may have caused this injury. It can be caused by a blow to your ear or by coming to the surface too rapidly after scuba diving. It is also caused by flying, by going to high altitudes within 24 hours after diving, or by undergoing rapid depressurization after working in a pressurized chamber.



SYMPTOMS

Symptoms of pressure injury to the ear(s) may include:

- Dizziness that feels like a “spinning,” “rocking,” or “tumbling” sensation.
- Loss of balance.
- Nausea (feeling sick to your stomach).
- Ringing in your ear(s) (sometimes called “tinnitus”).
- Ear pain.
- Bleeding from the ear(s).
- Sudden partial or complete loss of hearing (sudden deafness).
- Headache.

DIAGNOSIS

Your caregiver may know what is wrong based on your history. This is what was happening at the time that your problems began and what the problems are. Your caregiver may also use blood work, x-rays, and other tests to make sure that other injuries did not happen. This may be more important if your injury happened while scuba diving or if you traveled to high altitude after diving.

TREATMENT

Treatment depends on how bad the injury to your ear(s) is. For example, if there is a risk for infection, antibiotics may be recommended. Your caregiver will make these decisions based on what was found during your exam. With severe injuries, you may need to see a specialist.

HOME CARE INSTRUCTIONS

- **Do not** travel to high altitudes, work in a pressurized cabin or room, or pursue any scuba diving until your caregiver approves.
- Consult a dive medical officer or hyperbaric specialist before diving again.
- When you are diving, do not exceed the depths planned prior to your dive. **Do not** dive if you can not equalize pressure in your ears. If ear-clearing techniques fail, the dive must be ended. Always complete the decompression stops if necessary when returning to the surface.
- Avoid newer dive computers that "promise" longer bottom times. These devices modify the US Navy dive tables and increase your risk of future injury.
- Keep your ears dry. Use the corner of a towel to wick water out of the ears after showering or bathing.
- Use medications as directed.
- Drink fluids during the day.
- Avoid alcohol when swimming or diving.
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.
- See your caregiver as recommended.

SEEK MEDICAL CARE IF:

- You have pain that is not relieved by medications or is getting worse.

- A fever above 102° F (38.9° C) develops, or as your caregiver suggests.
- There is any new or unusual discharge from the ear.
- The outer ear becomes red or swollen or there is swelling behind your earlobe.
- You have problems that may be related to the medicine you are taking.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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