Otitis Media: Fluid in the Middle Ear

1. In the normal ear, air is on either side of the ear drum and the ear drum vibrates easily. Any fluid in the middle ear drains away through the Eustachian tube.

5. When swelling of the Eustachian tube goes down, air can get into the middle ear again. This restores the balance of air pressure on either side of the ear drum and it can vibrate easily.

4. After the infection is over (or if the fluid never became infected), the fluid is gradually absorbed. External air pressure pushes the ear drum inward ("retracted"), which can reduce hearing but is usually not painful.

3. If the fluid becomes infected, further swelling may occur, putting the fluid under pressure that bulges out the ear drum. This causes pain and further reduces the ability of the ear drum to vibrate.

2. The Eustachian tube may swell closed due to colds or allergies. Then fluid accumulates in the middle ear. The fluid reduces the ability of the ear drum to vibrate, which may reduce hearing.