



## Perilymph Fistula

A perilymph fistula is a ear o defect in one or both of the small, thin membranes between the middle and inner ears.

These membranes, the oval window and the round window, separate the middle ear from the fluid-filled inner ear. The changes in air pressure that occur in the middle ear (for example, when your ears “pop” in an airplane) normally do not affect your inner ear.

When a fistula is present, changes in middle ear pressure will directly affect the inner ear, stimulating the balance and/or hearing structures within and causing typical symptoms.

The symptoms of perilymph fistula may include dizziness, vertigo, imbalance, nausea, and vomiting. Some people experience ringing or fullness in the ears, and many notice a hearing loss. Most people with fistulas find that their symptoms get worse with changes in altitude (elevators, airplanes, travel over mountain passes) or air pressure (weather changes), as well as with exertion and activity.

### Causes

Head trauma is the most common cause of fistulas, usually involving a direct blow to the head or in some cases a “whiplash” injury. Fistulas may also develop following rapid or profound changes in intracranial or atmospheric pressure, such as may occur with SCUBA diving, aerobatic maneuvers in airplanes, weightlifting or childbirth. Fistulas may be present from birth or may result from chronic, severe ear infections. Rarely, they appear to occur spontaneously.

Fistulas may occur in one or both ears.

### Diagnosis

The only positive way the diagnosis can be confirmed is by performing a tympanotomy (operation) and directly viewing the area of the suspected fistula. If a fluid (perilymph) leak is seen, a perilymph fistula is assumed to be present.

Your physician will also use information from your history and physical examination, as well as objective vestibular and audiometric test results, to assist in establishing the diagnosis of perilymph fistulas.

### Treatment

In many cases, a fistula will heal itself if your activity is markedly restricted. In such cases, strict bed rest may be recommended to give the fistula a chance to close.

If our symptoms are severe and have not responded to conservative treatment (bed rest), or if you have a progressive hearing loss, surgical repair of the fistulas may be required. This procedure involves placing a graft over the fistulas defect in the oval and/or round window.

People with fistulas should avoid lifting, straining, bending over, or any activity that would “increase” the pressure in your head, “as all of these will make your symptoms worse and prevent the fistula from healing. You will also want to avoid air pressure changes (for example, using elevators, traveling in the mountains, or flying in airplanes) as these changes will tend to make your symptoms worse.