

## Earwax and Swimmer's Ear

Never put anything smaller than your elbow in your ear! Cotton swabs are for cleaning bellybuttons, not ears. You have probably heard these admonitions from relatives and doctors since childhood...read on to find out what they meant.

### The Outer Ear and Canal

The outer ear is the funnel-like part of the ear you can see on the side of the head, plus the ear canal (the hole which leads down to the eardrum).

The ear canal is shaped somewhat like an hourglass-narrowing part way down. The skin of the outer part of the canal has special glands that produce earwax. This wax is supposed to trap dust and dirt particles to keep them from reaching the eardrum. Usually the wax accumulates a bit, dries out and then comes tumbling out of the ear, carrying dirt and dust with it. Or it may slowly migrate to the outside where it can be wiped off. The ear canal may be blocked by wax when attempts to clean the ear push wax deeper into the ear canal and cause a blockage. Wax blockage is one of the most common causes of hearing loss.

### Should You Clean Your Ears?

Wax is not formed in the deep part of the ear canal near the eardrum, but only in the outer part of the canal. So when a patient has wax blocked up against the eardrum, it is often because he has been probing his ear with such things as cotton-tipped applicators, bobby pins, or twisted napkin corners. These objects only push the wax in deeper. Also, the skin of the ear canal and the eardrum is very thin and fragile and is easily injured.

Earwax is healthy in normal amounts and serves to coat the skin of the ear canal where it acts as a temporary water repellent. The absence of earwax may result in dry, itchy ears.

Most of the time the ear canals are self-cleaning; that is, there is a slow and orderly migration of ear canal skin from the eardrum to the ear opening. Old earwax is constantly being transported from the ear canal to the ear opening where it usually dries, flakes, and falls out.

Under ideal circumstances, you should never have to clean your ear canals. However, we all know that this isn't always so. If you want to clean your ears, you can wash the external ear with a cloth over a finger, but do not insert anything into the ear canal.

### What Are the Symptoms of Wax Buildup?

- partial hearing loss, may be progressive
- tinnitus, noises in the ear
- earache
- fullness in the ear or a sensation the ear is plugged

## Self Treatment

Most cases of ear wax blockage respond to home treatments used to soften wax if there is no hole in the eardrum. Patients can try placing a few drops of mineral oil, baby oil, glycerin, or commercial ear wax removal drops, such as Debrox®, Mack's® Wax Away™, Murine®, or Physicians' Choice™ in the ear. These remedies are not as strong as the prescription wax softeners but are effective for many patients. Rarely, people have allergic reactions to commercial preparations. Detergent drops such as hydrogen peroxide or carbamide peroxide may also aid in the removal of wax. Patients should know that rinsing the ear canal with hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) results in oxygen bubbling off and water being left behind-wet, warm ear canals make good incubators for growth of bacteria. Flushing the ear canal with rubbing alcohol displaces the water and dries the canal skin. If alcohol causes severe pain, it suggests the presence of an eardrum perforation.

## When Should I See My Doctor?

If you are uncertain whether you have a hole (perforation or puncture) in your eardrum, consult your physician prior to trying any over-the-counter remedies. Putting eardrops or other products in your ear in the presence of an eardrum perforation may cause an infection. Certainly, washing water through such a hole could start an infection. In the event that the home treatments discussed in this leaflet are not satisfactory, or if wax has accumulated so much that it blocks the ear canal (and hearing), your physician may prescribe eardrops designed to soften wax, or he may wash or vacuum it out. Occasionally, your doctor may need to remove the wax using microscopic visualization.

## Swimmer's Ear

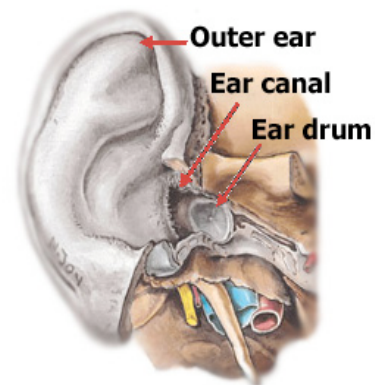
### Causes

Swimmer's ear is an infection of the outer ear structures. It typically occurs in swimmers, but the since the cause of the infection is water trapped in the ear canal, bathing or showering may also cause this common infection. When water is trapped in the ear canal, bacteria that normally inhabit the skin and ear canal multiply, causing infection and irritation of the ear canal. If the infection progresses it may involve the outer ear.

### Signs and Symptoms

The most common symptoms of swimmer's ear are mild to moderate pain that is aggravated by tugging on the auricle and an itchy ear. Other symptoms may include any of the following:

- Sensation that the ear is blocked or full
- Drainage
- Fever
- Decreased hearing
- Intense pain that may radiate to the neck, face, or side of the head
- The outer ear may appear to be pushed forward or away from the skull



- Swollen lymph nodes

## **Treatment**

Treatment for the early stages of swimmer's ear includes careful cleaning of the ear canal and eardrops that inhibit bacterial growth. Mild acid solutions such as boric or acetic acid are effective for early infections.

For more severe infections, if you do not have a perforated ear drum, ear cleaning may be helped by antibiotics. If the ear canal is swollen shut, a sponge or wick may be placed in the ear canal so that the antibiotic drops will be effective. Pain medication may also be prescribed.

Follow-up appointments with your physician are very important to monitor progress of the infection, to repeat ear cleaning, and to replace the ear wick as needed. Your doctor has specialized equipment and expertise to effectively clean the ear canal and treat swimmer's ear.

## **Prevention**

A dry ear is unlikely to become infected, so it is important to keep the ears free of moisture after swimming or bathing. Q-tips should not be used for this purpose, because they may pack material deeper into the ear canal, remove protective earwax, and irritate the thin skin of the ear canal creating the perfect environment for infection.

The safest way to dry your ears is with a hair dryer. *If you do not have a perforated eardrum*, rubbing alcohol or a 50:50 mixture of alcohol and vinegar used as eardrops will evaporate excess water and keep your ears dry.

***Before using any drops in the ear, it is important to verify that you do not have a perforated eardrum. Check with your doctor. if you have ever had a perforated, punctured, or injured eardrum, or if you have had ear surgery.***

People with itchy ears, flaky or scaly ears, or extensive earwax are more likely to develop swimmer's ear. If so, it may be helpful to have your ears cleaned periodically by an otolaryngologist.

## **WHY DO EARS ITCH?**

An itchy ear is a maddening symptom. Sometimes it is caused by a fungus or allergy, but more often it is a chronic dermatitis (skin inflammation) of the ear canal.

One type is seborrhea dermatitis, a condition similar to dandruff in the scalp; the wax is dry, flaky, and abundant. Some patients with this problem will do well to decrease their intake of foods that aggravate it, such as greasy foods, carbohydrates (sugar and starches), and chocolate.

Doctors often prescribe a cortisone eardrop at bedtime when the ears itch. There is no long-term cure, but it can be kept controlled