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## SWIMMER'S EAR (OTITIS EXTERNA)

### Introduction

Swimmer's ear, otitis externa, is an infection of the external ear canal. Excessive wetness from swimming, frequent showers, or perspiration can make the skin of the ear canal moist and vulnerable to infection by bacteria or fungus. Symptoms include mainly ear pain or itching. Drainage may result. This condition can occur at any age.

### What is it?

Normally, there is a protective, waxy coating (cerumen) produced by the skin apocrine and sebaceous glands within the ear canal. The cerumen (ear wax) covers and protects the ear canal. The wax contains chemicals that moisten the ear canal and kill germs. Swimmer's ear results from the loss of this protective cerumen, as well as, chronic irritation and maceration from moisture in the ear canal. Swimmer's ear may also occur from the excessive build up of wax, which can trap germs and moisture in the ear canal. The skin of the ear canal becomes inflamed and you will experience ear pain. Movement of the external ear results in worsening of this pain. Itching is another symptom which usually proceeds the pain. The patient may also report drainage from the ear with other symptoms including plugging of the ear, ear fullness and ringing (tinnitus). A conductive (temporary) hearing loss may occur as a result of the swelling of the ear canals and eardrum. Purulent (infectious) secretions or progressive skin thickening may be associated with longstanding inflammation.

### Medical Treatment:

Fundamental treatment of swimmer's ear is to keep the ear canal clean and protect the ear canal from additional moisture until the infectious is completely gone. It is helpful to make ear plugs of Vaseline-saturated cotton to keep water out of the ears during the infection. There are a variety of prescription ear drops available that contain a mild acid, antibiotic, and/or steroid. These ear drops are more effective against the bacteria, which cause the infection. Purulent debris filling the ear canal should be carefully removed, by a physician, to allow the entry of the topical medication. The ear drops should be instilled 2-4 times per day depending on the type of ear drops. With each instillation, an abundance of medication should be instilled to penetrate to the depths of the ear canal. Pumping the ear canal with a finger will aid in pushing the drops down the ear canal. If the swelling of the ear canal is significantly marked, a foam or gauze wick may be inserted into the outer portion of the ear canal by your physician. The medication is then applied to that wick. It is usually recommended that you, or your physician, remove the ear wick after a 24 hour period. When the pain is severe, topical anesthetics or pain killers (Tylenol, Motrin, Codeine, etc.) may be necessary. After completing the course of ear drops it may be helpful to place several drops of 70% Isopropyl alcohol twice a day for a week into the ear canal. This application insures the ear canal remains dry and sterile. **The alcohol must never be used if there is a hole in the ear drum.** If there is a mild burning sensation, the alcohol should be partially diluted with water until it can be used full strength without discomfort. If there is a substantial burning sensation, it may be appropriate to contact your physician. An effective, preventative treatment is to instill 70% Isopropyl alcohol immediately after moisture exposure such as swimming or showering and during times when the risks of an ear canal infection is more significant (spring and summer). Cotton should not regularly be worn in the ear canal as it traps moisture and infection.

### Follow Up

Most cases of otitis externa clear up completely in five to seven days. Follow up may be necessary to clean the debris from the ear canal. This cleaning will help prevent recurrence of the infection. If you are a diabetic or an immunocompromised individual, frequent follow up during the course of the infection will most likely be needed.

### Important:

As in all medical conditions, if you do not seem to be improving progressively, or if you have any questions regarding your medical care, please call and discuss the situation with your physician.

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### **GERD or LPRD Instructions**

In some people, irritating acid stomach juices may leak out of the stomach and into the esophagus and throat. This causes irritation and muscle spasm in the throat. Some of the symptoms that people have from this include coughing, burning or soreness, hoarseness, throat clearing, excess mucus, bad taste or a sense of a lump in the throat.

The following instructions are designed to help neutralize the stomach, reduce the production of acid and prevent acid from coming up the esophagus. You should use as many of these suggestions as needed to get relief. If these measures do not help, or if your symptoms get worse, you should let me know about it.

1. If needed, take an antacid, such as Tums Ultra, 30-40 minutes after meals and at bedtime. If symptoms are severe, antacids may be taken every 1-1/2 or 2 hours between meals. Please make your medical doctor aware.
2. If you are overweight, you should lose weight.
3. Diet restrictions help control symptoms. A bland diet divided into multiple small feedings is recommended. Symptoms may be aggravated by aspirin, chocolate, sweets, citrus fruits and juices, highly spiced foods, alcohol, tobacco and caffeine-containing beverages, such as coffee, tea, Coke and Pepsi.
4. When you chew or suck on candies, gum, breath fresheners, lozenges, there is an outpouring of stomach acid and these practices should be avoided.
5. Do not eat for 2 hours before retiring. Avoid laying down after any meals.
6. For nighttime relief, sleep with the head of your bed elevated since symptoms are more likely to occur if you lie flat. The best way to achieve elevation is to place a cinder block, wood or bricks under the legs of the head of the bed. The desired elevation ranges from 4 to 10 inches, with 8 inches being a customary level. If this is not practical, sleep on 2 or 3 pillows. Sometimes sleeping on the right side prevents distressing attacks.
7. Clothing that fits tightly across the midsection of the body should be avoided. Women should not wear a girdle. Men should not wear a belt but should use suspenders instead. Use of "abdominal supporting belts" should be prohibited.
8. You should practice abdominal or diaphragmatic breathing when you are having symptoms. This means that you concentrate on pushing out the stomach with each breath instead of expanding the chest.
9. Do not bend or stoop any more than is absolutely necessary. This includes activities such as gardening and exercises requiring lifting or bending.
10. Maintaining a relaxed attitude in your activities helps to reduce symptoms.