Otitis externa and swimming

This fact sheet covers how you can help swimmers prevent, treat and compete with otitis externa, if developed whilst swimming.

What is otitis externa?

This is an inflammation of the outer canal (external auditory meatus) connecting the outside part of the ear (pinna) to the ear drum.

The nickname **'swimmer's ear'** comes about as a common cause of water remaining in the canal after swimming. Medically this is known as otitis externa and is different from an infection of the middle ear known as otitis media.

What swimmers need to know about otitis externa and swimming

Symptoms:

- **Mild:** slight inflammation in the canal and sometimes a little redness and mild discomfort, on occasions with a slight discharge of colourless fluid.
- **Moderate:** the itching and irritation becomes intense, which may have a pus stained discharge, some pain and redness visible externally. The canal can become partially blocked by the debris which gives a muffled sensation and if the blockage is greater, there may be a degree of hearing loss.
- **Severe:** this requires urgent medical attention if there is temperature (pyrexia), severe pain, complete blockage, large amount of discharge, lymph gland enlargement in the neck or swelling of the outer ear.

Causes:

- Like most medical conditions prevention is better than the cure so that it doesn't become a recurrent problem.
- Some competitive swimmers seem to be more susceptible, this could be due to the prolonged periods of time they spend training in chlorinated water making them more vulnerable to inflammation.
- The cause is an infection, usually bacteria (pseudomonas or staphylococcus aureus). It invades the skin inside the ear which is thin and lines the canal.
- Sometimes the inflammation is caused by a fungus or by an allergy causing a secondary eczema.

Treatment:

- Most episodes of otitis externa can be cleared up quickly. This can be within a few days with a topical (directly applied) treatment.
- Swabs sent for testing can help with determining which bacteria is causing the infection and determine antibiotic sensitivity.
- Ear drops usually contain an antibiotic to kill the bacteria, a steroid ear drop to reduce the swelling and inflammation and sometimes an anti-fungal drop to kill primary or secondary fungal infection.
- There are numerous other medications manufactured by pharmaceutical companies such as 'Otosporin' or 'Sofradex' and the application advice should be followed.
- Oral antibiotics such as flucloxacillin may be necessary if there is inflammation or spreading infection.
- After treatment, a follow up with their doctor can be arranged if necessary to exclude other causes e.g. perforated drum.

Tips for participants swimming with otitis externa

These tips are to help swimmers prevent otitis externa whilst taking part in the sport.

Do:

- wear a tight fitting silicon swimmer cap, this reduces the amount of water entering their ear, more protection can be achieved by using ear plugs
- shower properly after their swim and dry both ears as chlorine in water is a drying agent
- clean and sterilise their ear plugs to avoid growth of bacteria.

Try:

- an alcohol based proprietary preparation such as 'Ear Calm' as they may benefit from this. This is applied after swimming and keeps the canal dry, kills bacteria and minimises the risk of infection
- to keep ears clear of wax as this can encourage bacteria growth and recurrent infections. If there is a lot of wax this can be syringed out by their local practice nurse (now mainly recommended only if other remedies fail) or using a wax dissolving topical preparation such as 'Cerumol'.

Avoid:

- putting objects in their ear such as cotton buds to try and clean wax. The lining of the outer canal (external auditory meatus) can be damaged by this type of trauma.

Be careful:

- when training in a different pool to what they are used to as some swimmers may be more susceptible to infection.

Additional advice

General advice on ear infection:
nhs.uk/conditions/ear-infections/