

# Can you 'ear' me?

by Dr Robyn Wallace

## What is the ear made of?

Did you know that there are three parts to our ears? The outside bit that we can see and wriggle and put earrings on is called the pinna. Look at your friend's ear without pulling it! You will see the pinna and a hole in the ear, some hair maybe. The hole is about as long as a five cent piece and this is called the ear canal. The ear canal has some hairs and wax is there too. The pinna and the canal are called the outer ear. To see more of the ear, I need to use my special doctor's light to look in the ear. Then I see further at the end of the canal. There I can see a shiny circle, called the eardrum, covering a deeper hole into the head. This part is called the middle ear. Behind the shiny drum I cannot see even with my special torch. But past the shiny drum right inside the brain is a piece of the ear which looks like a snail, called the cochlea. The snail parts make sure that the nerves of the brain can pick up sounds and noises so that we hear. The snail part also helps us keep balance when we walk. Because this part is inside the head it is called the inner ear.

## The ear does more than hear!

Noises and sounds come from outside down in through the pinna, down the canal and cause the shiny circle to vibrate like a drum. The nerves in the inner ear pick up the vibrating drum and make our brains hear the sounds. But wait there is more. The inner ear also makes us get our balance right.

## What causes an ear ache?

Well ear aches are very nasty and most people I know have had an ear ache at one time or another. Ouch. There are two main ways to get an ear ache. First, the outer ear can get a germ. You will know this because it hurts to wriggle the pinna (the part of the ear where you put earrings). The second way is the middle ear (where the ear drum is) can get an infection. This one really hurts inside and throbs but does not hurt to touch the ear. When you have an ear ache, you should take some Panadol and see your GP. She/he will then gently touch and look at your ear with their torch and tell you which bit of the ear has the germ. For the outer ear germ some drops may be needed and to keep the ear dry, but for the eardrum germ you may need some antibiotics. Either way you will need some tablets for pain while things are getting better.

## What else can go wrong with the ear?

When the ear is not healthy, then you cannot hear properly or you might lose your balance. How do you know that you cannot hear as well? - you might need to turn up the TV or ask your friends to say that again. Ears can get blocked with wax; this stops the sounds getting into the head from the outside. When the wax is taken away hearing is back to normal, so that is easy. The wax could be removed with some help from your family, support worker or doctor. Some times you might need some drops to help remove the wax. This does not hurt at all.

At other times, if you have many germs in the middle ear (the eardrum) you can stop hearing very well. Did you have grommets as a little child? This was to help stop infections. If you have really bad germs in the ear, time and time again you may get a bone infection around the ear or a cholesteatoma inside the ear.

And as we get older, hearing drops off. Do you have to sometimes speak very loudly to an older person like your grandmother or grandfather? This is because their ears are old too and do not work as well. The ears get old very quickly in adults with Down syndrome - even at age 30. When the ears do not hear very well, you cannot hear the TV, cars coming, people talking, birds singing, your favourite music and so you miss out on a lot of good things. When the ears are damaged like this you might need a hearing aid. Ask your granny or granddad to show you theirs. A hearing aid is a bit like the earplug for your walkman or ipod.

When the inner ear is damaged you can feel dizzy and sick. A germ can cause this. Luckily the germ goes away after a day or so and you are ok again.

## Do adults with Down syndrome have a lot of ear problems?

Well yes. Go back and look at your ears again. You might notice that they are very cute and small on the outside. You cannot see this but they are also smaller on the inside in the ear tube, more so than your friends who do not have Down syndrome. So yes you are lucky to have such pretty ears but it means that you can get more infections and wax build up, and more chance of hearing problems. Also the inner ear gets old quickly, so you have another risk of losing your hearing. Block your ears and try to have a talk with someone - it is hard when you cannot hear properly isn't it.

How should I protect my ears?

1. Two times per year, ask your GP to look inside your ears and remove any wax.
2. When you have an ear ache visit your GP to see if you need ear drops or antibiotic tablets.
3. If you have a lot of infections or a lot of trouble hearing, your GP may send you to a specialist ear doctor. Sometimes the germs can spread.
4. Have your hearing checked every three years after the age of 30 years. This involves making an appointment and going to a hearing shop. There you listen to various sounds some very very soft, some so that you can just hear them and some easy to hear. No needles and no poking or prodding.
5. Listen to your doctor about looking after your ears - sometimes you might have to put ear plugs in when you have a shower or go swimming to protect your ears.
6. Go to your doctor if you start getting dizzy or feeling sick. Keep healthy, well and happy, doing exercise and eating well.

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SHAID clinic for adults with Down syndrome is held the second Thursday of every month at the Mater Hospital.