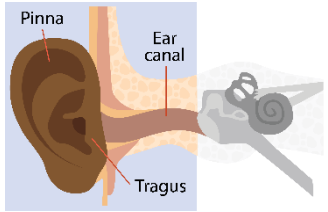
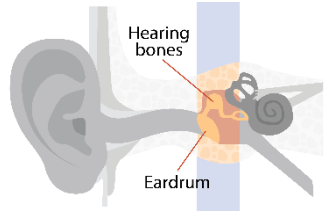
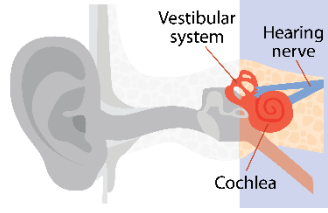




Lesson 1: Hearing and different hearing problems

What is hearing?

Hearing is the ability to detect and understand sounds in the environment. Ears collect sound vibrations and change them into electrical signals that are sent to the brain. When these signals reach the brain, we hear sounds and can recognise them. All parts of the ear must be working properly to have good hearing. Different parts of the ear involved in hearing:

Part	Role	Key points	Image
Outer	Collects sound from the air and directs them into the ear canal.	Yellow or brown coloured wax is produced in the ear canal. Wax helps protect the ear and clean it of dirt. It normally passes out of the ear canal by itself.	
Middle	Makes sounds louder.	The ear canal leads to the eardrum (tympanic membrane). The eardrum separates the ear canal and middle ear.	
Inner	Changes the sounds into electrical signals.	The inner ear is made of two parts: • Cochlea: responsible for hearing • Vestibular system: gives information to the brain, which helps us to balance.	

What is hearing loss?

Hearing loss is a condition when a person is not able to hear as well as a person with normal hearing. Conversations can be difficult in quiet and noisy environments. Hearing loss can range from mild to profound.

- People with **mild**, **moderate**, or **severe** hearing loss will have difficulty following conversations. This is referred to as 'hard of hearing'.
- People with **severe** or **profound** hearing loss in both ears are Deaf.

People who are Deaf have more complex needs and should be referred to an ear and hearing professional.

Common reasons for hearing loss include:

- Problems that happen before, during or immediately after birth
- Ear diseases, such as infections from measles, mumps, meningitis or ear infections
- Ear problems, such as foreign bodies or blocked ear wax
- Age related hearing loss
- Hearing damage due to noisy environments
- Hearing damage due to medicines or chemicals.

Hearing loss affects people in different ways. Babies and children need to hear speech so they can develop listening and spoken language skills. A person with hearing loss may experience difficulties following conversations and have difficulties at home, work, school and with friends. It is important to identify hearing loss in children and adults early.

Healthy ears

When checking a person's ear health, it is important to look at the outside and inside of their ears on both sides. Always check a person's ear from in front and behind. A healthy ear should have:

- An ear canal that is not blocked
- An eardrum that is:
 - Clear (partially see-through)
 - White/light grey colour
- No sign of injury or infection.

If a person's pinna or ear canal is missing or a very different shape, the person has more complex needs and should be referred to an ear and hearing professional.

Ear problems

Ear problems can affect a person's ability to hear. However, many ear problems can be treated and the person's hearing improved or fully restored. Always check for ear problems before providing a hearing assistive product for a person.

A person with ear problems may experience:

- Pain
- Loss of hearing
- Discharge from the ear.

Warning! Untreated ear infections may cause a person's eardrum to burst

After a possible cause of hearing loss has been removed, the person may feel like they can hear properly again. Always confirm the person has healthy ears and continue to do a hearing test to assess their hearing level.

Lesson 2: Hearing assistive products

Hearing assistive products may be used by people of all ages who have difficulty with hearing.

Hearing assistive products included

Some commonly used hearing assistive products are included:

- **Hearing aids** are electronic devices worn on the ear. They assist a person by making some sounds louder so that the person can hear better. Preprogrammed and programmable hearing aids are included.
- **Personal remote microphone systems** help people who use hearing aids to hear better in noisy places.

Hearing assistive products not included

The following products are not included:

- In-the-ear hearing aids
- Cochlear implants
- Alarm signallers
- Loop systems
- Sound field systems.

Lesson 3: How to carry out an ear health screen

The TAP Ear health screen is a simple process to find out if a child or adult has an ear problem and/or difficulty hearing. It helps identify whether a person may benefit from:

- Dry mopping or ear washout
- A hearing test
- Referral to an ear and hearing professional
- Referral for other assistive products.

Before starting, prepare the space and equipment. Explain the ear health screen to the person and ask permission to check their ears.

Screening questions

Ask the person questions to understand their experience with hearing problems and hearing assistive products.

Some people have complex needs and will need  referral to an ear and hearing professional for assessment and/or treatment. These complex needs include:

- Children under five years of age
- Adults and children above five years of age who are not able to speak or have difficulty speaking
- People who experience repeated ear discharge
- Sudden changes in hearing in a short space of time (last three months).

If a person is already using a hearing assistive product, and they have a problem with their current product, with their permission,  refer to the service where they received the product.

Ear health screen

To perform an ear health check:

Step	Action if ear problem	Action if no ear problem
1. Check outside of the person's ear (front and back on each side)	• If signs of: ◦ Injury, infection or ◦ Absence/very different shape of ear/ear canal  Refer to an ear and hearing professional. • If person has injury or infection → Ask them to return for an ear health screen after they have received treatment. • If signs of ear discharge → Dry mop person's ear.	If outside of ear is healthy → Continue. Look inside person's ear.
2. Look inside the person's ear with otoscope (each side)	• If signs of infection  Refer to an ear and hearing professional. Ask the person to return for an ear health screen after they have received treatment. • If signs of hole in eardrum  Refer to an ear and hearing professional. • If ear canal blocked with ear wax or foreign body is present → Perform ear washout. Always check it is safe to continue before performing washout.	If inside of ear is healthy → Plan a hearing test.
3. If needed, perform ear washout	• If ear washout unsuccessful  Refer to an ear and hearing professional and ask them to return for an ear health screen after they have received treatment.	If ear washout successful and ear healthy → Plan a hearing test.

If both ears are healthy outside and inside, plan for a hearing test to assess if a person could benefit from hearing assistive products.

How to use an otoscope

- The speculum is an attachment on the otoscope. This goes inside a person's ear canal. Clean the speculum with cotton wool and disinfectant before using it.
- Hold the otoscope in your right hand if you are examining the person's right ear, and your left hand if you are examining the person's left ear.

How to check the inside of an ear

1. Wash your hands with soap and dry them before and after an ear check.
2. Check for pain by gently pressing the tragus. If there is sign of pain, avoid using the otoscope or use it very gently.
3. Check for discharge. Remove discharge by dry mopping.
4. Prepare the ear by gently pulling the pinna up and back to straighten the person's ear canal. In a young child pull the pinna straight back. Keep the pinna held during otoscopy.
5. Always insert the otoscope gently to avoid causing pain or damage. Avoid inserting the speculum too deeply. If the person experiences pain, stop the examination.
6. If you cannot see the eardrum, it may be that ear wax is blocking the view, or the otoscope is not positioned correctly. Gently adjust the position of the otoscope upwards and forwards (towards the person's eye).
7. Always check both ears!

Dry mopping

This is a safe way to remove discharge from a person's ear:

1. Wash your hands with soap and dry them before and after dry mopping.
2. Twist the end of a clean tissue to make a 'tissue wick'.
3. Gently pull the pinna up and back for an adult or straight back for a child.
4. Gently rotate while inserting tissue wick 2-3 centimetres into the person's ear canal.
5. Leave in place for about 10 seconds.
6. Pull out the wick and see if it has pus or other fluid on it.
7. Throw away the wick you have just used. Follow local guidelines when throwing away used ear wicks.
8. Repeat with another tissue wick. Continue repeating until the tissue wick is no longer wet.
9. Look in the person's ear with the otoscope to confirm that all discharge has been removed.

Ear washout

This is used to clear wax or a foreign body from a person's ear canal.

Warning! Ear washout should **not** be done if the person has:

- Had recent ear surgery
- A known existing hole in their eardrum
- An ear infection
- Ear pain.

If yes to any,  refer the person to an ear and hearing professional.

To perform an ear washout:

1. Wash your hands with soap and dry them before and after ear washout
2. Check water temperature. It should be warm, not hot, or cold. Fill a 20ml syringe with water
3. Ask the person to hold the kidney dish or other bowl under their ear and tight against the skin of their neck
4. Place the tip of the syringe into the person's ear canal
5. Point the syringe so that it is facing towards the top of the ear canal, and slightly backwards

6. Press the syringe to push the water into the person's ear canal
7. The water will drain into the bowl and may contain wax or a foreign body
8. Examine the person's ear again with an otoscope
9. Repeat washout if necessary to clear blocked ear canal
10. Check the person's ear after each ear washout.

Warning! Stop ear washout if the person experiences ear pain.

If person's ear is still blocked with ear wax after three attempts, ask them to return the next day and repeat ear washout. If ear wax is not removed after two visits, with the person's permission,  refer to an ear and hearing professional.

Lesson 4: Plan

Other assistive products

During the ear health screen, ask the person if they have difficulties in other areas. For example, vision, mobility, self care, communication, or cognition (thinking and/or remembering).

Next steps

- **Screen:** If the person has difficulty in another area, ask if they would like to be screened for another problem.
- **Assess:** If a person has healthy ears, plan a hearing test.
- **Refer:** Making referrals should always be discussed and agreed with the person.
- **Follow up:** It is important to make a follow up appointment to screen a person's ear again after treatment for ear infections. If their ear health is not better after treatment,  refer to an ear and hearing professional.