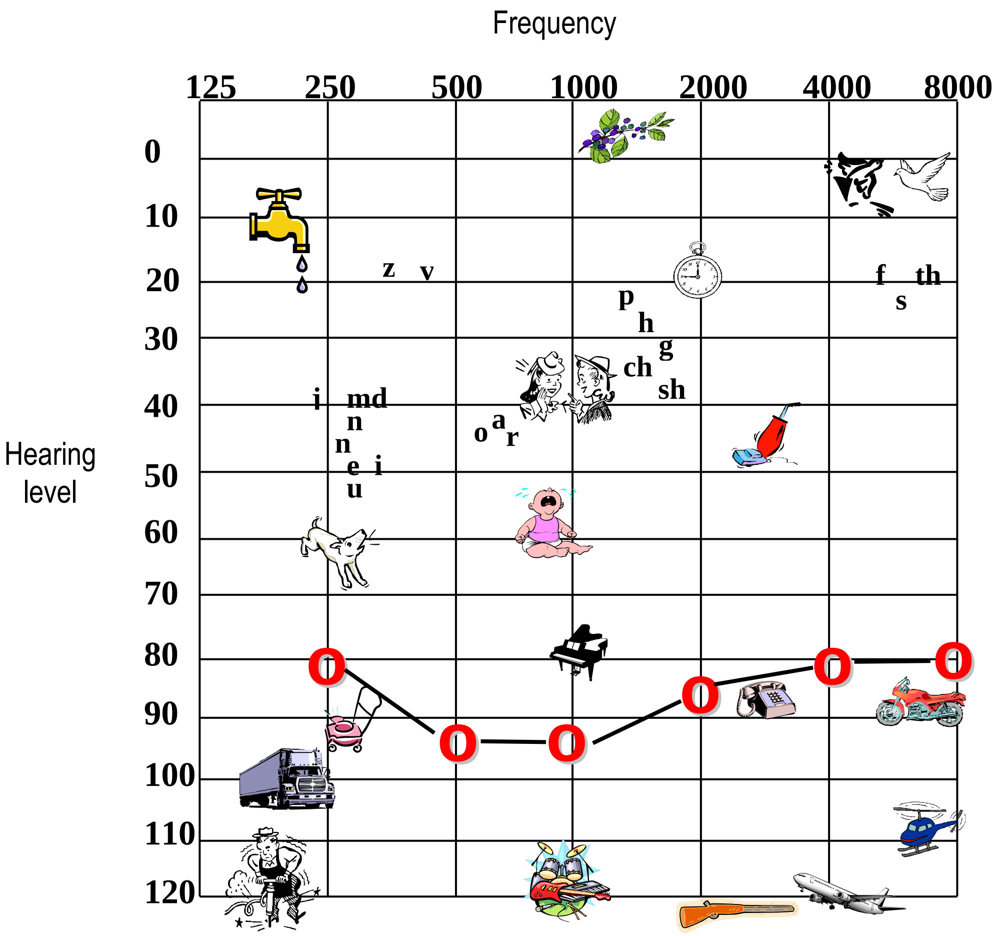
Special Educational Needs Support Services (SENSS)
Hearing Impairment Team

Unilateral Hearing Loss

What is a unilateral frequency hearing loss?
A unilateral (one-sided) hearing loss describes the condition when a person has no useful hearing in one of their ears. This could be because the nerve cells have been permanently damaged. A person with a unilateral hearing loss relies on their good ear for all their hearing.

What is Microtia and Atresia
Microtia is when the external ear is underdeveloped. Microtia is often accompanied by Atresia. Atresia is the absence or closure of the external auditory ear canal. The formation of the middle ear bones may be affected, including the narrowing of the ear canal.
Microtia can be unilateral (one side only) or bilateral (affecting both sides). Most children with microtia will have some degree of hearing loss on the affected side. Generally, although the outer and middle ear is affected, the inner ear is healthy so some options for restoring hearing are available. A bone anchored hearing aid might be one option. Support tips for unilateral losses are also pertinent for those with unilateral microtia and atresia.

The graph below shows an audiogram where an example of a unilateral loss is plotted in the right ear. Speech and environment sounds are identified on the graph according to their frequency and intensity. A person with a unilateral hearing loss would not be able to hear in the right ear any of the environmental or speech sounds above the line shown. However, if the other ear had hearing within normal limits then all those sounds would be available to the person.



Causes:

- A unilateral hearing loss can be present at birth. The hearing loss can range from mild to a complete loss of hearing in the one ear. It may be inherited or may be caused by problems during the pregnancy or delivery.
- A unilateral hearing loss may also develop later on in life as a result of an infection eg. mumps or meningitis.
- Microtia and atresia are present from birth (congenital.)

Effects of a Unilateral Hearing Loss

Most children and young people with a unilateral loss develop clear speech. This is because one ear has normal levels of hearing. However, although a person will hear well in most situations they may experience difficulties with the following:

- Hearing sounds or speech on the side of the ear with the hearing loss.
- Locating the source of a sound.
- Understanding speech when there is background noise.

At Home

As a unilateral hearing loss makes it difficult to tell what direction a sound is coming from it is important to teach your child to take extra care when crossing the road. When out cycling, rear-view mirrors on your child's bicycle can help them to notice when a car is behind them.

At School

Many pupils with a unilateral hearing loss will manage well at school and will find that their schoolwork is unaffected by their hearing loss. However, they may be more easily distracted or become very tired due to the additional concentration required, particularly towards the end of the day.

To make it easier for the pupil, they should be seated so that the teacher can be seen easily. the pupil should sit as near as possible to the front of the class with the ear that has normal hearing directed towards the teacher. It is also helpful if the teacher can check that the child has understood the instructions, particularly when the topic or task changes. The teaching staff should be aware of the pupil's hearing loss so that their school progress can be monitored closely.

Protecting the "good ear"

In most cases the hearing stays the same in the 'good' ear. However, it is important to take precautions to safeguard the residual hearing in the ear with the hearing loss as well as the 'good' ear:

- If your pupil has an ear infection they should see their GP as soon as possible. An ear infection can cause a temporary worsening of their hearing loss.
- Ensure that the pupil avoids long periods of exposure to very loud sounds, for example pop concerts or listening to a personal stereo at high volumes. Provide ear plugs where appropriate.
- The pupil should have regular hearing tests.

Will a Hearing Aid Help?

Most pupils with a unilateral hearing loss do not use hearing aids. One reason for this is that although the hearing aid will make sounds louder, the hearing loss can make the sounds distorted. This can be confusing for the pupil who is hearing clear sounds with their other ear.

Bone Anchored Hearing Aids (BAHA) may be used with children with microtia and atresia to give them the benefits of bilateral sound. These can be used on a soft removable head band for little ones.

What are the implications for school environment?

- Make sure you get the pupil's attention before speaking to them, especially if speaking from a distance or where there is background noise.
- Wherever possible, try to position yourself so that your pupil's ear with normal hearing is on the side near to you when talking to them.
- A unilateral hearing loss affects the ability to filter out unwanted noises so high background noise levels make listening more difficult. Chairs scraping, fan heaters, data projectors, corridor noise can all cause problems.
- Rephrase rather than repeat statements if they are misunderstood.
- It will be difficult to locate the direction of a sound. Eg. Class discussion can be a particular problem when the listener is trying to identify the speaker.
- Staff need to be aware of the risks to the good ear when the C&YP involved in contact sports.
- Any problems (e.g. infections, wax) in the good ear will affect overall hearing.
- The pupil may find listening in echoic rooms especially difficult. Eg. The gym, a swimming pool.
- It is important to consider how to ensure the safety of the pupil with unilateral hearing loss when out and about. Eg. On school trips and outings the pupil may not hear traffic approaching, cyclists' bells behind them or be able to locate where a voice is coming from if called.

Using a Soundfield System in the Classroom

Soundfield systems can be used to improve the listening conditions by making sure the teacher's voice is able to be heard at a constant volume throughout the classroom. This means it can be heard more easily from wherever the pupil is sitting or facing. It is particularly useful when there is a lot of background noise. The system comprises a microphone, worn by the teacher, and speakers fitted around the classroom. Some schools already have these fitted to help all pupils to hear the teacher. Portable systems are also available.

LOCAL OFFER Information about the SENSS local offer is available at:
https://www.oxfordshire.gov.uk/cms/content/services-support-children-learning
Further strategies and resources available at: https://www.oxfordshire.gov.uk/cms/public-site/early-years-sen-toolkit