

Listening with a Cochlear Implant

Listening is a continuum:

Detection - knowing there is sound present

Discrimination - knowing that there are different types of sound

Identification - knowing what the sound represents (eg doorbell)

Comprehension - knowing that words/sounds have meaning and acting on that.

These skills develop best when:

- the young person gets lots of experience of sound/language in a meaningful and fun way.
- the sounds/language are linked to things that are important to the young person.
- the sounds/language are used appropriately in the context of the young person's daily routines.
- the sounds/language are used frequently and generalised to different situations.

The young person will get most out of a listening activity session when:

- s/he is comfortable and ready to join in.
- s/he is well positioned to hear and see to enable maximum involvement.
- background noise and other distractions are kept to a minimum to help concentration.
- activities are **fun** and at the right level for the young person's development.

Detection

Be aware that the sounds a young person now hears with their processors will be very different to those they heard previously (through hearing aids or with better hearing levels) and initially they may not respond to sounds they used to hear until they have got used to the implants' signal. For most people, detecting new sounds is exciting, but sometimes, it may be worrying for the young person to detect but not recognise all the sounds s/he may be now hearing. Therefore games need to be **fun** and **meaningful**.

Sounds through processors can seem very strange at first and have variously been described as:

Squeaks	Beeps	Cartoon-like Donald Duck	Crackles	Fuzzy
Dalek voices	Buzzes	Hissing	Echoes	Whooshing

Point out sound sources as and when they arise and draw your young person's attention to whatever is making the noise with a 'what's that noise?' There are some sounds which stop and start that we cannot see, such as a boiler or fridge motor starting up or stopping.

It is likely however, that this group of young people will very quickly move on to the discrimination and identification of sounds development as they begin to re-learn the sounds they have already in their memories.

Some pointers:

- Choose some games/activities that you know the young person likes and play them more often as it is important that he/she is motivated and the repetition will be very helpful.
- A good balance is needed between keeping him/her confident with the games by playing them often and introducing an element of surprise or freshness now and then to keep him/her interested.
- Point out the phone ringing before answering it. Listen for the microwave bell (if you have one!), a cooking buzzer, a morning alarm and so on.
- Remember when you are outside there are many things to hear. Make the most of the environmental sounds. Call your young person's attention to the sounds, for example "Did you hear the dog/cow/police car?"
- SILENCE is golden –remember to leave some additional 'thinking' and 'processing' time for your young person when you're chatting with them. They need to have opportunities to 'fill the gap' in a conversation and this will only happen if there is actually a gap for them to fill! Don't feel that you have to talk at them non-stop. A conversation (even at the most simple level) is a two way process.

Discrimination

It is likely that a young person will already have a good understanding that there are different types of noises so that, at this stage, they will be getting used to how these now sound to them through their processor.

Be aware that young people may be hearing something very different to what they have been used to and that they will **need time and practice** to get used to the new sounds through their processors. Reassure the young person that with practice things will begin to sound more 'normal' again and encourage them to wear their processors all the time.

Ideas for working on discrimination of sound:

Same/different judgements can also be made using sentence material for young people whose language ability can support it. e.g.

Get your lunchbox



What's the weather like today?



- Pictures or photos can be used for the young person to point to the appropriate word or sentence being said, if need be.
- Practice listening to sounds which are very similar and identify if they are the same or different e.g. Two notes on the piano/two blocks on a xylophone.
- If language levels permit, use two single words, say each word clearly and slowly one after the other, the young person has to say if they were the same or different (they don't need to identify the word at this point).

Some pointers:

- Initially these tasks are carried out with the young person able to lip read etc. Then gradually withdraw visual clues.
- Model discrimination activities carefully to ensure that the young person knows what to do.
- The young person may demonstrate what they have heard by repeating what they have heard or pointing to an item, word, sentence (depending on their language levels). Here is an example of how discrimination tasks can be built upon:
 - ✓ Different numbers of syllables, e.g. "car car" are the same but "car carpet" are different.
 - ✓ Discriminating vowels: "coat coat" (same) but "coat Kate" sound different.
 - ✓ And consonants: "van van" (same) but "van pan" are different.
 - ✓ Then building up from 2 contrasting sounds to several: which of these sounds the same as bed? Bid, bread, bed, dead or said?

Ask your key contact if you would like more of these types of structured listening activities.

Identification of sound:

Present lots of opportunities for the young person to develop the ability to listen to and identify sounds in a **meaningful** and **fun** way.

Use identification games and activities:

- Identification of the LING 6 sounds – “ar”, “oo”, “mm”, “sh”, “ss”, “ee”. Begin with the young person being able to discriminate between 2 sounds e.g. “oo” and “sh”. Present the two sounds and encourage the young person to point to or place a counter on the appropriate sound. Increase this to identifying between 3, 4 and 5 sounds as the young person is able.
- Play Sound lotto - use various environmental sounds either live or recorded for the young person to identify with the corresponding picture. Make your own sound recordings with important sounds for your young person.
- Remember to start with the easier sets (very different words with different syllable numbers) and then get harder as the young person’s listening matures (very different sounding words with the same syllable number) and then harder still (words with the same initial sound and the same syllable number) and so on.
- Missing items from a sequence - use any sequences of familiar items e.g. Numbers 1 – 5 (or 1-10 etc), days of the week, months of the year (any sequence that your young person is familiar with). Read through the sequence once so they can hear what it sounds like and are comfortable with it, then read through it again and miss out ONE item from the sequence. Can they pick out which item you missed?
- If reading ability allows, use a favourite book or story or a simple text, read with your young person and get him/her to follow the text on the page, stop mid sentence and ask them to tell you which word you stopped at. This works equally well with rhymes or songs.
- Go on a ‘sound walk’ to listen to:
 - ✓ Outside noises: cars, vans, lorries, planes, trains, birds, ducks in the park, dogs in the park.
 - ✓ Inside noises: vacuum cleaner, toilet flushing, cake mixer, hair drier, phone ringing, microwave bell ping, alarm clocks ring, egg timers ring, radio, TV,

Some pointers:

- Once the young person is tracking what is said confidently, use sabotage - make a silly mistake so that the young person listens for the unexpected and corrects you.
- Use natural language.

Comprehension

The ultimate goal of listening practice is always understanding through listening - “auditory comprehension”.

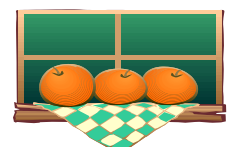
- Auditory Comprehension requires both the perception of sound and the knowledge of language to interpret the sound.
- Auditory comprehension is the ability to process and recall the language that has been heard. It involves short and long term memory and more complex auditory skills such as sequencing and auditory association as well as the fundamentals of paying attention, identifying words and processing them etc
- A young person needs to think while listening. S/he must make a judgement or decision about what was heard and produce a verbal response which is more than just a repetition of the stimuli.
- The young person develops the ability to understand the meaning of speech by answering questions, following instructions, paraphrasing, or participating in conversation.

Use Stories, poems, riddles etc.:

- Use story books, rhymes and sequence stories to increase sequencing skills, auditory memory and prediction skills.
- Use simple riddles where the young person has to guess the answer.
- Use sequence pictures (begin with a sequence of 3 pictures). Tell the story to the young person, putting it in sequence as you go. Muddle the sequence up and then ask the young person to remake the sequence. If the young person is able, ask them to retell the story.
- Use classifying activities to strengthen this skill- e.g. choose the one that doesn't belong in a group :

e.g. 1. orange, grape, apple, car.
2. running, hopping, walking, elephant.

- Think of opposites game, e.g. word presented - tall- young person responds- short.
- Think of a word associated with another word e.g. rain— umbrella
- Use descriptions – start with simple descriptions of an object, person, place or animal and see if the young person can guess what it is. E.g. I'm thinking of a fruit, it is round, it is orange and very juicy. What is it? Use picture cards for visual reinforcement. When your young person is ready, reverse roles and give the young person a turn at describing, to help reinforce this skill.



- Play a game of twenty questions. Build the game around the people or things that are the focus at the present time.
- Ask the young person to tell you all the sounds they heard within a set time e.g. the birds singing outside, the aeroplane, someone talking.

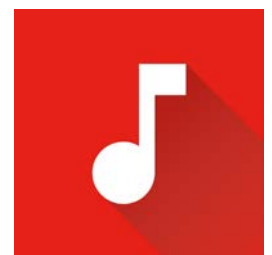


- Play a listening game where each young person repeats a word he/ she has heard and adds one more- 'the car'- the next young person says 'went'.
- Information transfer activities – you both have a 9 square grid and some colours/pencils etc. You have to draw an item in a given square of your grid, then without showing your young person your drawing, tell them what to draw and where (e.g. In square number 1 draw a yellow car). See how many they can get right. Descriptions and items can get more complicated as their listening experience grows
- Who am I? What am I? – describe everyday household objects or famous people. The young person has to work out what the item is from your description. Pick simple items at first and then you can get more complicated as the young person's listening experience improves.

E.g.

1. I am big and very hot and you can see me in the sky on a clear day (the sun),
2. I am something sharp you can use for cutting (a knife),
3. I am someone famous who lives at number 10 Downing St (The Prime Minister)

- Any listening games – eg. I went shopping and I bought a cat. Then the next person adds an item: "I went shopping and bought a cat and a teapot" etc.
- If the young person likes music it can be great to listen to familiar songs with a copy of the lyrics alongside you and see if you can follow the songs. If that's too easy, use songs that your young person doesn't know or new music (ask your Key Contact at USAIS about how to listen to music directly through the processor).



Remember the key to any listening activity is to have FUN! If you or your young person is not enjoying the activity stop.

Keep a diary of your young person's listening progress. Great to look back on!