

Down's syndrome

What is Down's syndrome?

Down's syndrome is a genetic disorder which is associated with some physical, processing and learning difficulties.

Down's syndrome and speech and language acquisition

The following is a list of some problems which may be associated with the speech and language of individuals with Down's syndrome. Not all of these will be identified in every individual with the syndrome, and their influence will also vary depending on the individual's stage of development, the severity of the problem itself, or both.

- The **palate** may be high arched and narrow.
- The **tongue** may be large for the area it occupies, with reduced muscle tone and sometimes fissured. Tongue co-ordination, speed and accuracy of movement may be reduced, which influences sound production, clarity and speed of utterances.
- Intermittent 'glue ear' produces **hearing loss** which is usually more severe during winter months. Some individuals with Down's syndrome, just as some people in the general population, may have a sensory-neural hearing impairment.
- Children with Down's syndrome find **auditory processing** difficult. This is the process by which we make sense of what we hear. Children with Down's syndrome appear to have problems in listening, retaining what they hear and decoding or translating it. All three processes are needed to learn language and use it appropriately.
- **Memory**, particularly recalling what they have heard, can be slow to develop and often requires practice to extend.
- Difficulties with **receptive language** – the recall and the decoding of what we hear – make understanding more difficult. Understanding is made easier if information is related to the individual's immediate situation, rather than about another place or time.
- **Hearing and auditory processing** problems may also mean that an individual with Down's syndrome may not recognise changes made to

words which alter meaning (**morphology**), such as the addition of 's', 'ing', 'ed', and so on.

- The sounds of speech (**phonology**) are often produced less clearly because of the structure of the mouth, lower muscle tone in the tongue, hearing difficulties and slow processing skills.
- **Comprehension of abstract information**, subtle language, alteration marked by changes in stress, tone, use of inference, innuendo or sarcasm, etc. may be very difficult for even adults with Down's syndrome to recognise.
- **Expressive language** is slower to develop and, as with understanding, is often context bound. Physical and processing problems influence content and clarity. Gestures or signs that have been individually devised or learned may be used. Early attempts at verbal communication may produce partial attempts at words only. These are often followed by clear words mixed with unclear verbalisations which use sentence-like stress, intonation and pauses.
- A number of people with Down's syndrome show a degree of **dysfluency**. This is often intermittent, and varies from the rhythmical, relaxed repetition of words and syllables, to tense blocks on sounds or words.
- **Voice** quality sometimes appears deeper in tone, and may sound rather less modulated to the listener.
- The **visual processing** of people with Down's syndrome is often an area of strength. This may appear to be a strange area to be discussed in a glossary about speech and language. However, individuals do tend to use their visual processing strength to compensate for their rather weaker auditory channel. This point may be useful in teaching. However, a high proportion of people with Down's syndrome require glasses, and so their visual acuity will need checking if the visual channel is to augment auditory input.

This is not a complete list of all the areas in which children and adults with Down's syndrome may have difficulties. They will all have some problems with the development of speech and language. The extent and type of problem depends on the individual people, as does the type and extent of intervention to help them.

References

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Other organisations which can help

Down's Syndrome Association
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