

CAUTION: Activities included in the Advice Sheets for Parents (Therapy Pictures part 1) can be used by parents/assistants without specific training. However, the more invasive procedures described below (e.g. exercises to elicit /k/, /g/, /ŋ/) should only be carried out with appropriate training and providing the supervising therapist is satisfied that they can be carried out safely.

Therapy

Respiration/Larynx

Aims

- 1 To develop adequate breath support for speech
- 2 To develop control of initiation of voice
- 3 To extend vocal control: length, volume, pitch
- 4 To improve voice quality

Equipment

Oro-motor list (Appendix 2): pipe and ball, candles, bubbles, whistles, pipes, recorders, straws, plastic tubing, toy aeroplane/helicopter, toy slide, tightrope, cotton reels, roads/paths, and Voice worksheets (in first Ringbinder). Also see Advice sheets for parents in first Ringbinder.

Computerised equipment e.g. The Speech Viewer III and the Laryngograph are also useful for all aspects of voice work.

1 Developing adequate breath support

The expiratory phase of the normal breathing pattern can sometimes be shortened, or poorly co-ordinated in children with dyspraxic difficulties, resulting in only one or only a few syllables per breath. As a consequence, their speech can sound jerky and stilted, and intonation patterns cannot be used to help convey meaning.

Begin by trying to extend the expiratory phase during a non-speech activity e.g. using blowing activities: aim for long gently controlled blows and for an increasing number of short blows on one breath. For long controlled blows, try:

- Pipe and ball. Aim to keep the ball spinning a couple of inches above the cradle, for as long as possible.
- Blowing through a straw into a bowl of water with some washing-up liquid (very rewarding, but beware if child does not have blow/suck contrast fully established).
- Blowing big bubbles with a bubble pipe.
- Any blowing toy which requires a strong and sustained blow helps to strengthen respiratory muscles.

For younger children, and those with very severe difficulties, it is often worth starting the exercises with plastic tubing rather than a straw, as the tubing is less easily crushed, thus success is more likely. Wine-making tubing is a good size; different sizes of tubing can be found in DIY and hardware stores, for plumbing of washing machines etc.

For several blows on one breath:

- Blow out candles on a board (one blow per candle). Gradually increase the number of candles to be blown out from two to five. Larger candles are much harder to blow out, so to succeed as soon as possible, use birthday cake candles.
- Use a whistle or recorder. Give two blasts on one breath, and increase the number of blasts.

2 Control of Initiation of Voice

Once the child can initiate voice, help him to be aware of this. Show pleasure and give praise for any sound he makes.

- Make him aware of the sound that he has made, and encourage the use of any different sounds he is able to make.
- The aim at this stage of voice initiation, is to encourage the child to produce voice on request, and in a sequence i.e. not random voice production, which is often what the child is doing. He needs to learn to vocalize in response to a cue e.g. "switch your voice on".
- Use voice worksheets with vowel symbols or simple games, using coloured dots to represent vocalisation e.g. model for the child a repeated vocalisation of a long vowel ah /a,a,a,a/ and see if he can copy that model. Encourage gentle initiation, good vocal tone and resonance, together with an even rhythm. Start slowly and increase speed only when the child is able to sustain vocal tone, rhythm etc.
- There are a range of toys available which respond to noises or talk back - these can be very stimulating for some children and are worth trying to motivate voice production. Speech Viewer III is also useful for this type of work.

3 Improving voice quality

a) Principles:

- Make sure work is concrete and visual to aid the child's comprehension of the rather abstract concepts involved.
 - Always provide a vocal model when working on voice e.g. demonstrate high-low loud-quiet sounds, etc. Much of the work is aimed at eliciting an accurate imitation of the therapist's model.
 - Different textures may help to explain e.g. rough-sandpaper, smooth-stone, etc.
 - Fluid, easy movements can help to represent smooth quality.
 - "Good/Bad" should not be used to describe voice. Try more accurate descriptors e.g. too loud/too quiet; too high/too low; too long/too short etc.
 - Use long vowels initially for voice work before attempting any work at word level. Incorporate work on voice into speech work from the beginning and continue monitoring voice as therapy progresses.
 - A set of symbols to represent different voice parameters may be helpful with some children, e.g.:
- | | | | | | | | |
|---|-------------|---|-------------------|--|--------------|---|------------------|
| ➤ | <u>loud</u> | - | gorilla | | <u>quiet</u> | - | ladybird |
| ➤ | <u>long</u> | - | caterpillar | | <u>short</u> | - | frog |
| ➤ | <u>high</u> | - | mosquito (in air) | | <u>low</u> | - | cow (lying down) |