

- that speech develops out of movement and human contact.
- that body movements and sound production are linked in early infancy – later of course the child has sufficient control to hide his feelings and keep a straight face when speaking.
- that the foundations of speech are laid in infancy.
- that speech development does not start when the child says his first words, but is dependent upon contact and the stimulations arising from his surroundings from birth onwards.

These facts must guide us when we are dealing with the speech problems of the child with cerebral palsy.

When a child has a motor handicap, his tools of speech, breathing, voice and articulation, facial expression and gestures will also frequently be involved and sensory input is more or less limited, which then reflects in language development.

Speech and the child with cerebral palsy

When a parent speaks to a child who is spastic or ataxic the child will be slow in making any sound or assuming any facial expression; the athetoid child, however, will have almost an excess of facial expression – grimacing and often an extreme of pitch and loudness in his voice. Each of these reactions is unusual and therefore strange to us and we are inclined to interpret them as indicating a lack of understanding or of intelligence; very likely we then give up trying to communicate with him or confine our talking to a minimum, probably thinking 'he does not seem to understand anyway'. By our reactions we are depriving the child of some of the most important stimulations, without which he cannot develop his language ability, involving thought patterns, speech and language.

If, on the other hand, the child shows no signs of any reaction to sounds and noises and you begin to be doubtful about his hearing ability, do not hesitate to take him to your doctor. In those rare cases where there is the possibility of hearing

defect, early detection and training are of the utmost importance for language and speech development.

Preparation for speech

If you handle your child as advised in the preceding chapters you will be helping him to improve his head and trunk control and at the same time helping him towards better feeding, thus giving him largely what he needs for the development of speech, i.e. an almost normal breathing pattern, coordination of the movements of his mouth and tongue and the possibility of making sounds without extra effort, leading to reasonably effortless articulation.

As in most other activities, the child with cerebral palsy should be in a stable position and one which will not allow any grossly abnormal patterns to occur. Figure 10.1 shows a suitable position for a young child. Since we all make use of other senses in communication, such as lip-reading when we are listening to someone, your position when you are talking to the child is most important, for example, handling him in such a way that he has good head control. Always try to be in front of him at his eye-level, or slightly lower, so that he does not have to look up to you as this will probably throw him into a pattern of hyperextension;

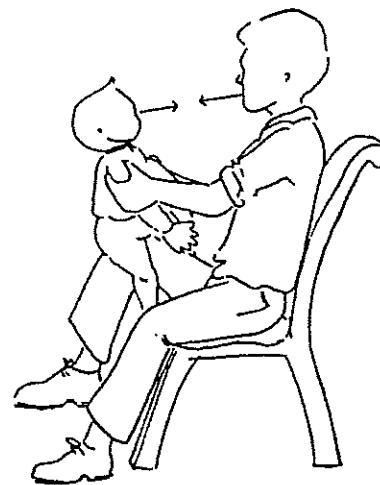


Figure 10.1 Speaking to the child so that he can watch your mouth without having to look up and controlling him from his upper arms or shoulders for a good head position

breathing and the effort to speak tend to cause this movement anyway, so guard against it by sitting or squatting down at the child's level (Figure 10.2b). You can also help your child before he gets ready to make sounds by controlling him from a suitable 'key-point' (see Chapter 6 on basic principles of handling), thus facilitating babbling or speech.

For speech and babbling the baby needs to have delicate, coordinated movements of his lips, mouth and tongue; if these continue to function abnormally, oral control (see Figure 18.5, later) might be found helpful - with a baby this might consist of lip and tongue play to induce babbling in positions, such as those shown in Figures 18.1 and 18.2, in the chapter on feeding. Demonstrate with your own mouth and voice while you stroke lightly his upper or lower lip or move his tongue sideways or, with light control of his jaws, open and close his mouth to obtain chains of sounds such as 'ababa, bababa', etc. Never try to practise single sounds or certain mouth positions, as that would be unnatural and would tend to increase the child's tendency to block and get 'stuck'; these little babbling plays should be pleasant and short; at the same time we must remember that while results should be anticipated, we must not expect the child to succeed on the first occasion in

imitating perfectly the sounds that you are making.

Some common problems

When your child reaches the age when specific sounds need to be made or, having been made, need to be corrected, do not tell or show him what or how to do it, nor expect him to learn from trying in front of a mirror, as his brain damage prevents him from translating auditory or visual commands (especially when they are 'mirror-like') into the correct movements.

It is important to remember that we should never practise isolated sounds with a child with cerebral palsy. We must not forget that it is not lack of intelligence or effort which prevents the child from speaking correctly but that his difficulties are due to his **sensorimotor involvement**. Undue persistence in our efforts will only increase the child's frustration by reinforcing his already frequent experiences of failure; you are performing a much more useful service by helping him to facilitate the necessary movements. This is admittedly a difficult undertaking when we consider the precision, fluency and speed of the movements necessary to produce articulate speech. In some

cases of course it is assistance of a speech therapist. Speech problems cannot be corrected as these would only in some cases it is advisable to tell your speech therapist. If the child's voice is not clear, tell him to speak with great effort and to increase in spasticity and head control, and in turn should be able to voice. An open mouth whether it is due to a cleft palate or a speech therapist or speech problem. You can practice during mealtimes a play for good head control, upper lip, back, and neck (feeding), can be applied. You can stroke his lower lip, no need to say anything. Remember that not breathing through the mouth, articulation, dental. Mouth closing is a problem. Telling the child to suck his thumb must be treated as a problem. Thumb-sucking is a problem. Efforts and, if it is not, by a 'dummy' as this is so much more easily used. A helpful method is to show interest towards a child which might be good (experimenting with the mouth) is an excellent idea. It certainly has its own speech; it represents experience and a young handicapped child. Remember that speech must be integrated into early infancy, in the first talk, what we have available and used.

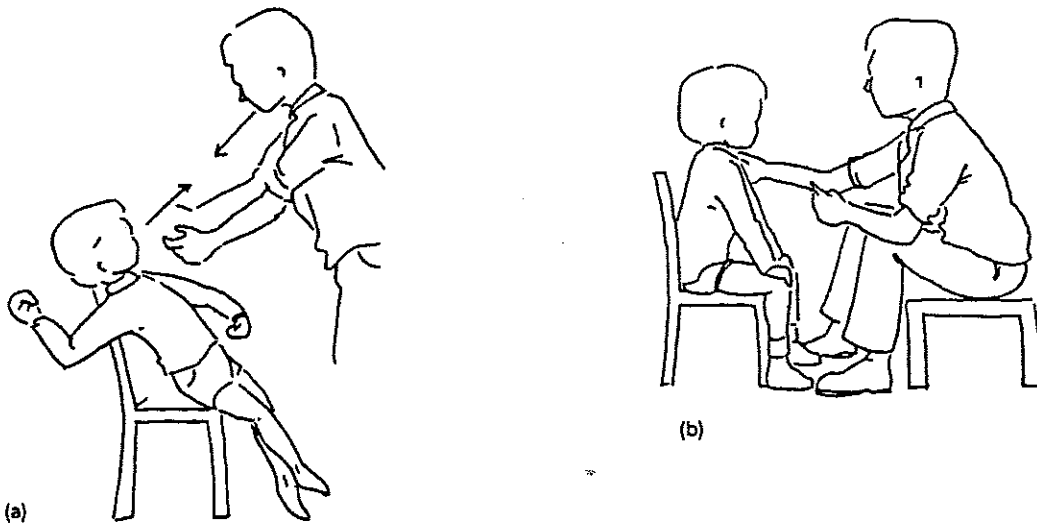


Figure 10.2 (a) Wrong. Speaking to the child from above throws him into an extensor pattern, making phonation difficult. (b) Right. Speaking to the child at the same eye-level, helping him with head control from his shoulder or upper arm or by pressure on his lower chest with your flat hand

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cases of course it may be essential to seek the assistance of a speech therapist.

Speech problems caused by abnormal breathing cannot be corrected through 'blowing' exercises, as these would only increase spasticity and in such cases it is advisable to consult your physiotherapist or your speech therapist.

If the child's voice is weak it is not a good idea to tell him to speak louder, as he can only do so with great effort and this will merely mean an increase in spasticity. Aim rather for better trunk and head control, as this may help his breathing and in turn should improve the volume of his voice. An open mouth is always a passive mouth, whether it is due to hyperextension or lack of muscle tone, and you will need the help of your physiotherapist or speech therapist to deal with this problem. You can practise mouth closure at home, during mealtimes and sleeping times while watching for good head control. Pressure above the upper lip, back, not down (see Chapter 18 on feeding), can be applied in between times, or you can stroke his lower lip two or three times; there is no need to say anything when you are doing this. Remember that mouth closure is essential for breathing through the nose, and for swallowing, articulation, dental health and dental occlusion.

Mouth closing will not improve by continually telling the child to keep his mouth closed and must be treated as part of his overall disability. Thumb-sucking will certainly counteract your efforts and, if it is essential, should be replaced by a 'dummy' as this, of course, can be discarded so much more easily in the very early stages of its use. A helpful method is to try to direct the child's interest towards a toy, or some absorbing activity which might be going on around him. Mouthing (experimenting with hands and objects at and in the mouth) is an entirely different thing and most certainly has its place in the development of speech; it represents an important sensorimotor experience and should be encouraged in the young handicapped baby (see Chapter 18).

Remember that all these preparations for speaking must be integrated into the daily life of a child in early infancy, in the hopes that when he is ready to talk, what we have described as his 'speech tools' will be available and under reasonable control.

Sensory input

It has already been pointed out that the baby receives and takes in speech, including facial expressions and gestures, with all his senses, not merely that of hearing. Because of his motor problems your baby may be deprived of part of these sensory experiences, and therefore you will have to try to bring them to him; do not, however, bombard him with sensory stimuli as a young child's perception is not yet organized, i.e. is not yet able to distinguish the important from the unimportant, or to put things into proper sequence. The brain-damaged child might be slow in maturation of perception anyway, and if, in your natural anxiety, the rate of progress you wish him to make is too fast, he will merely become frustrated, retire into himself, or lose interest altogether.

A baby learns and forms concepts by mouthing, handling, manipulating, playing and listening to your talking about the objects you are showing him. Use the parts of his body, simple elementary toys, the things that you use when feeding, bathing, dressing him and so on. Do not expect the young child to maintain his interest and to want to take part in such play for more than a short time, nor expect any immediate verbal reaction from him, let alone imitation of your talking - stop while he still has fun and he will be eager to go on the next time.

It is normal for a young child just to listen, watch, manipulate and even laugh, but not 'say' anything until possibly many days later. As play is the form in which he will absorb and learn during the first few years of his life, make the occasion one of play rather than a teaching situation, use objects of different colours, shapes, textures and sounds, even tastes and temperatures; name each of them and talk a little about them and what they are used for; **all this will help to develop the sensory avenues which are necessary for the formation of language.**

Rhythm plays an important part in the early stages of development; therefore, for the child with cerebral palsy, reinforce rhythmical verbal play with rhythmical body movements, e.g. clapping hands. This is an essential activity if the child

is to learn to use his hands independently of each other. Later on, of course, nursery rhymes with suitable actions and words should be introduced.

Attempting speech

When the child attempts babbling or speech but without very much success, all the joy will be taken out of it for him if you try immediately to correct his attempts; **remember that it normally takes a child about 5 years to reach a reasonable level of speech.** The pleasure of playing with speech is a very important factor in speech development and must be taken into account. Let the child play with speech, let him experiment before trying to help him, but be careful, however, not to become too excited at his first successful attempts and not to start urging him to repeat; too much fuss makes a child withdraw just as easily as neglect or constant correction.

Look upon his efforts to speak as being normal and let him see by experience that speech in day-to-day living is necessary and of course interesting.

Gestures

During the first year of life, gestures are essential. When you go about your daily activities speak to your child mainly about those activities that directly concern him; name objects first, then the verbs for the activities and so on and eventually construct little sentences. We must not, however, run the risk of overemphasizing the importance of gestures as otherwise the child might not develop beyond them either on the receptive or the expressive side; the danger would then be that he would never learn to dissociate language from gesture.

We must give the handicapped child plenty of opportunity to express himself, no matter how fragmentary or unsuccessful his first attempts may prove to be. If we keep reading every need or wish from the expression in his eyes or from his gestures; if we answer every question for him; if we always speak for him – he will have no need or incentive whatsoever to talk and the valuable and sensitive phase for the development of speech will

pass unused. Ask him simple questions, letting him feel by your intonation and facial expressions that you expect a reply and one that lies within his mental and verbal capacity. Ignore his gesturing or nodding of the head more and more and, this is most important, do not forget to be patient in waiting for his answers, as they will often be slow and delayed in coming.

Personal interaction

We hope that what we have said will leave you in no doubt as to the importance of close contact between yourself and your child, as you help him to build up 'inner language' which is so essential for his future speech development. Television, radio, discs, tapes and so on, however excellent their presentation, have only a very limited value and place in the child's speech development and can never replace personal contact as you help your child build up his vocabulary. For example, while reading a book do so by speaking slowly, explaining any new words, stopping frequently to repeat and explain their meaning – personal touches that are so important but impossible when technical devices are used.

In our efforts to help the child to form concepts, we should start by teaching him about his own body, the objects around him in his cot, his playpen and so on, by these means gradually widening his horizon by talking about familiar objects he knows and uses in his room. Later take him to the window and talk about the familiar scene outside, let him see the postman coming in to deliver the letters, the milkman with the milk and so forth. He should then be ready to look at the first simple picture books representing objects with which he is familiar, and from these he can go on to pictures that represent everyday simple situations.

When choosing books be sure to take the child's limited experience into account. A child who is fairly immobile or has, for example, never been to the country cannot be expected to recognize the farm animals in the pictures he is shown.

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Choose books carefully, finding ways and means to enlarge the child's world despite his physical handicap. When you show him things in the picture books, name them, talk about their use, their special characteristics, their colours and so on, gradually introducing nouns, adjectives and verbs. Remember, however, that this cannot be done all at once. Later, as he progresses, a children's picture dictionary may be found useful. Have short pleasant sessions and you will find that the child himself will keep asking to look at the pictures over and over again; 'feed' him little at one time so that he can absorb and stay interested.

The age at which articulation of a specific consonant, or the use of the first word emerges, must never be of primary concern to us, as it is known that it differs greatly among children. Remember

that what will really count in the future of the child with cerebral palsy is not merely perfect articulation, but the ability to use language and thus be able to speak and express himself without undue physical effort and tenseness and in this way being easily and clearly understood.

I have tried in this chapter to stress the importance of **early sensorimotor preparation** and the part the parent can play in helping the child towards effective speech. 'Augmentative communication' might become necessary or helpful for your child. For advice on the best possible choice, right time, careful introduction and practice, as well as individual adjustments on technical devices, consult your specialized speech therapist (see Chapter 11 on communication and technology).

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