

**Stages of pedagogical and psychological rehabilitation of children with cochlear implants with hearing impairments**

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**Annotation:** This article covers the methods of providing psychological and pedagogical assistance to children with hearing impairments and the problems of proper education and upbringing of children with hearing impairments as a result of the joint activities of family and specialists in the upbringing of weak hearing and deaf children, their formation as individuals, raising their position in society.

**Keywords:** Psychological-pedagogical, memory, observability, family, deaf child, weak hearing child, behavior, reablitation, speech, factor, speech activity, hearing impairment

Today, in our country, attention is even more increased for children with such hearing impairments. Free implants for children under 5 years of age are being developed under the state program in the Republic for the restoration of hearing sensation by installing a cochlear implant in children with hearing impairments. A wide range of work is also being carried out on the pre-and post-cochlear implantation work.

We gave information about this miraculous construction in our previous columns. Cochlear implantation is considered one of the effective methods of rehabilitation of deaf children, allowing people who do not hear at all to hear and understand speech. In this case, it is only necessary to pay the main attention to the fact that, unlike the usual hearing aids, which simply amplify the sound, the cochlear implant reaches the non-working parts of the ear and delivers the signal directly to the auditory nerve. In this way, a system of electrodes is inserted into the inner ear of a child with hearing impairment during the operation, which provides the possibility of feeling sound information through electrical stimulation of the preserved fibers of the auditory nerves.

Cochlear implantation does not give deaf children the opportunity to distinguish sound signals from their introduction into the speech process and use speech for communicative purposes. Therefore, for the first time, when adjusting the processor is carried out, the child will need pedagogical support in terms of auditory perception and speech development. Cochlear implantation is a holistic system of a number of measures, not just surgery. Currently, the analysis of the rehabilitation of children after surgery, based on different approaches of scientists and personal experience, has given the opportunity to develop some recommendations for parents:

- What do educators and parents need to know about the postoperative rehabilitation of children?
- For the last 5-6 weeks after the operation, the processor does not connect until it has settled down. The child loses hearing skills, accepts material by reading the lips.
- After the operation, it is necessary for the child to wear an individual hearing aid in the non-implanted ear.
- It is important to remember that the cochlear implant is very sensitive to injuries and it is necessary to be extremely careful for the first 6 weeks (Prohibition of noisy games, running, jumping, swimming in the pool, preventing children from catching a cold).
- It is necessary to keep the child's head from various blows, therefore, when choosing sports, caution is required. When participating in action games (football, basketball, volleyball), it is necessary to take off the upper part of the cochlear implant, and put on a headdress (hat) on the head. During this period, children are not allowed to play boxing and ice hockey.

Caution is also necessary when performing gymnastic exercises, it is necessary to untie the outer part of the implant.

- It is not recommended to use telephone headphones (headphones) due to the fact that when working with a computer, the implant shrinks the area of the head where it is located. Also, the sound quality is impaired and the child's risk of getting an electrostatic charge is born.
- The duration of the last rehabilitation of congenital deaf children from cochlear implantation is a period of 3-5 or more. For the development of children with cochlear implants, it is up to the pedagogue and parents to carry out daily correctional work.

Since the sounds and speech transmitted through the cochlear implant are sliding, children do not hear as clearly as children who hear in moderation even after education. This causes children to hear poorly in noisy conditions, requiring them to be under pressure during the hearing process. It is necessary to give assignments to the implanted child individually, in such a way that only he is addressed in order to attract the child's auditory attention. The assignment is repeated several times until the child is understood. Hearing attention disorders, difficulty keeping speech material in mind are associated with the fact that the auditory centers of the brain did not receive information and did not develop during the pre-operation period.

- It is necessary to stand at a distance of not less than 1 meter on the side on which the implant is installed when communicating with the child.

- It is necessary to talk slowly with the children.

The main goal of the rehabilitation of children with cochlear implantation is to teach the child to feel, distinguish, understand and recognize the surrounding sounds, understand their essence and apply this experience for the development of speech.

For this, the postoperative rehabilitation of children includes the following components:

1. Adjusting the speech processor of the cochlear implant.
2. Develop a sense of hearing and speech.
3. General development of the child (nonverbal intelligence, motor skills, memory, attention, etc.).
4. Psychological support for the child and his loved ones.

The results of the work and examination carried out after cochlear implantation differ depending on a number of factors.

1. The degree of development of the sense of hearing and the presence of hearing experience up to cochlear implantation.
2. To the level of development of speech capacity and speech activity of children.
3. Individual psychological characteristics.
4. The presence of additional defects (vision, intelligence, etc.).
5. The presence in parents (or persons in their place) of the opportunity to actively participate in the rehabilitation process.
6. The fact that the surgical operation was successful.
7. Stability of speech processor tuning.
8. Constant carrying of a cochlear implant.
9. The emergence of positive experiences in the development of auditory and colloquial skills.

It is known that when the speech processor is first tuned, the child is able to hear only the strongest (loud) sounds (which he may not even show in any way), but as a result of slowly adapting to new sensations, correcting the setting, he manages to perceive calm sounds. Observing this process, the pedagogue evaluates the development of the ability to find quiet low-frequency and high-frequency sounds in a child.

Children with cochlear implantation quickly learn to imitate individual sounds, words and even short phrases of speech in the process of training. In all tasks designed to develop a sense of hearing, it is necessary to have two stages: at first, signals are given to the child through hearing so that he can see sound-giving movements, and then only perceive them by hearing.

In the development of hearing perception of children after cochlear implantation, it is necessary to keep in mind the following: when the signal is given, it is necessary to attract the attention of the child's hearing and sight; in the initial periods, until the adjustment of the KI processor reaches a sufficient level, children with KI do not hear quiet sounds and it is In order to have an effect, they have an extended latent period of time to sounds, so that after the sound is transmitted, it is necessary to give time to give a response reaction by taking a pause (temporary stop) for a while. If there is no answer, the signal is repeated. When operating a movement reaction to sounds in children, it is necessary to change the duration of the interval between signals, and in some cases, discard.

Work experience with children after cochlear implantation as a result of continuous systematic work of educators and parents, shows that the hearing capacity of children after Ki develops faster than children with a normal hearing aid. This condition is especially characteristic of children who have lost hearing and have hearing experiences during the period of speech acquisition.

In order for the child to understand speech, it is not enough to find speech signals, to distinguish, to be familiar and taught to know. It is necessary that the child master the language system, that is, the meaning of many words, the composition of the sound, the change and combination of words in a sentence and the skills of using language tools in communication. The purpose of such training is to study the meaning of words and collect impressive vocabulary. The leading role in the enrichment of vocabulary is played by parents. First of all, it is necessary to form the need for speech communication in the child. The results of the development of oral speech in children vary. However, at the end of Stage 1 of education in the conditions of intensive parental support, the child begins to actively feel the meaningful characteristic of the speech of those around him. In many children, 1.5 years after the operation is carried out, the idea is divided into managed to form the skill of being able to say using several words, in which the composition of the child's empirical vocabulary will be no more than 50 words.

The development of a child's speech and hearing directly depends on the level of his psychophysical development. Therefore, after cochlear implantation, it is necessary to conduct training on the development of non-verbal functions. The development of children's non-verbal functions after cochlear implantation is based on the age and software requirements of the school and includes the development of:

- a) movement activity (large and small motor skills, subject activity);
- b) perception of the surrounding world (perception) (imagination of the properties and functions of objects and its parts, imagination of spatial and periodic relationships of things and phenomena);
- C) development of attention (such characteristics as vision, hearing, involuntary, voluntary, volume, stability, distribution, displacement of attention);
- g) memory development (hearing, sight, movement);
- d) development of imagination;
- e) development of thinking (organization of visual-moving and visual-figurative thinking using construction-making tasks, Organization of the whole from pieces, selection and separation of objects according to size, color, shape, quantity, and organization of B, nonerbal categorization and series of plot pictures );
- j) development of the emotional-volitional sphere (formation of the skill of completing the work started, overcoming difficulties, being able to restrain one's desires and calculating with the wishes of others, which will be necessary for the child to receive education, etc.).

Rehabilitation of children with cochlear implantation takes 3-5 years, and we can see its ultimate goal as a preparation for a public school for most children. And this requires the joint activities of specialists and loved ones of the child. Classes with children of the early age period in the post-cochlear implantation period do not have a clear structure and are not sorted by age periods.

Despite the fact that humanity has invented many methods in order to provide assistance to children with hearing impairments, the study of the mechanism of the sense of hearing remains some distance from progress. Implantans, different hearing aids, vibrators, surdopedagogues with different methodologies and so on. But none of these methods can give a guaranteed result. In any situation, this will be an experiment equal to the life expectancy of the child. Through an operation or by having the most improved hearing aid, the child acquires not many skills that are similar to the speech of the surrounding hearing aids. All that remains can be done only with the methodology that is carried out every day tirelessly and diligently. However, not only as an example of the problem of hearing loss, but also what is needed to do more in the early age periods of the child is evident and proven in the experiences of many people.

Including scientifically analyzed the development of small business and business, and the legal basis, at this time financially support small business and business, the latter is amended and the rules for this branch of national legislation are added.

Now studying scientific heritage, socio-political activities and acquaintance youth charity of our above-stated ancestors is considered one of the main urgent objectives of the modern intellectuals.

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