

## DEVELOPMENT PROSPECTS OF COCHLEAR IMPLANTING

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### ABSTRACT

This article describes speech formation and the history of cochlear implantation in hearing impaired children.

**Keywords:** Speech, stimulation, neuroprosthesis, cochlear, sensorineural, expressive speech, grammatical skills, logopedic work

In the past, a deaf person did not even have the opportunity to speak, and nowadays, the modern technical structure "Cochlear implant" helps people with hearing impairment to enter the hearing world. The word cochlear is derived from the Latin word "Cochlear" which means "shell". Cochlear implantation is a device aimed at full social adaptation of deaf children and adults with 4th degree of sensorineural deafness. With the introduction of the cochlear implantation method, approaches to the treatment of sensorineural deafness have changed radically. In less than twenty or ten years, cochlear implants have evolved from the first attempts at direct electrical stimulation of the auditory system to commercial devices that have restored hearing in hundreds of thousands of patients. Several aspects of the history of cochlear implantation can be related to the development of other neuroprostheses.

Currently, a lot of work is being done to install a cochlear implant in our country. An example of this is the regulation of the Minister of Health of the Republic of Uzbekistan dated December 9, 2014 No. 20 "On the procedure for selecting patients for cochlear implantation operations in medical institutions". According to this, cochlear implantation operations are intended to restore the hearing ability of persons with bilateral sensorineural hearing loss of III-IV level or deafness by stimulating the inner ear using a multi-channel electrode. In addition, cochlear implantation surgery and rehabilitation activities after cochlear implantation surgery are provided free of charge. Sableva A.S. showed the importance of creating an effective speech environment in logopedic work with deaf children after cochlear implantation, and the necessary conditions for successful speech development of such children. He paid special attention to the direction of speech therapy in the general system of rehabilitation of children after cochlear implantation. The most promising category of candidates for cochlear implantation is children under 3 years of age, which is due to the special importance of timely development of the auditory-speech and speech-motor centers of the brain. The purpose of cochlear implantation for a deaf child is to create conditions for him to understand the speech of others, to use speech to communicate and learn about the world around him.

In the postoperative period, understanding of speech in specially organized and natural situations of communication (passive vocabulary, grammatical meanings); pronunciation and lexical-grammatical aspects of speech; development of language skills (differentiation of grammatical forms, analysis and synthesis of language); non-verbal and verbal intellect; other mental functions and motor skills. First of all, it is necessary to build a foundation for the

development of expressive speech - to accumulate passive vocabulary, to form grammatical concepts at an impressive level. The child can regularly collect active and passive vocabulary, acquire grammatical skills and coherent speech skills. Speech therapy is of special importance in the general system of rehabilitation of children after cochlear implant. The strategic goal of logopedic work is to form the language ability and communicative competence of a child with a cochlear implant. In a child with a cochlear implant, developmental disorders of not only phoneme-phonological, but also semantic-lexical, syntactic-morphological parts of speech are detected. The development of speech skills occurs on the basis of listening skills, recognition, as well as the ability to separate phonetic, lexical and other language units by ear. In turn, the ability to distinguish phonemes and linguistic generalizations in general determines the success of the child's speech development. Listening exercises are conducted along with the formation of pronunciation skills. Exercises aimed at teaching to recognize individual sounds in oral speech were considered indispensable in working on pronunciation skills. The first type of exercises is aimed at forming the skills of understanding situational speech, and the second type consists of speech and linguistic exercises. There are 3 types of exercises used to develop language skills in children with cochlear implants: 1) to develop phonetic skills; 2) on the development of lexical skills; 3) exercises on the development of grammatical skills. With the help of listening, we can develop the distinction of grammatical events, understand the content, determine the structure of the sentence, etc. Simple sounds are often used in listening. These are symbolic sounds. At the lexical level, work is carried out on the child's passive vocabulary. Using passive vocabulary, new vocabulary is created. In order to form a lexical reserve, exercises are used to develop receptive skills, such as establishing a connection between the semantics of the heard word.

In conclusion, in children with cochlear implants, it is important to develop the ability to speak along with the ability to hear. Especially for children of school age, a speech therapist should teach words correctly and systematically during training. This situation is the basis for the development of speech from the point of view of pronunciation. In addition, the speech therapist must choose language materials suitable for the age of the child with a cochlear implant, monitor the child's oral presentation of the acquired words, repeat the words spoken by adults and understand the meaning of new words.

### REFERENCES

1. Sadikovna, Rakhimova Khurshidahon. "Objectives and tasks of cochlear implantation." *ACADEMICIA: An International Multidisciplinary Research Journal* 12.4 (2022): 671-675.
2. Sodikovna, Rakhimova Khurshidahon. "Preparation of preschool children with cochlear implants for independent learning." *European Journal of Research and Reflection in Educational Sciences* 8.8 (2020): 159-161.
3. Sodikovna, Rakhimova Khurshidahon. "Use Of Innovative Technologies In The Formation Of Speech Skills In Children With Hearing Disabilities." *Euro-Asia Conferences*. Vol. 1. No. 1. 2021.

4. Shahnigor, Rakhimova Khurshidakhon Sadikovna Khomidova. "FORMATION OF KNOWLEDGE, SKILLS AND COMPETENCES IN THE PROCESS OF TRAINING CHILDREN WITH HEARING DEFECTS TO WORK." *Confrencea* 3.03 (2023): 188-192.
5. Sadikovna, Rakhimova Khurshidakhon. "COCHLEAR IMPLANTATION: AN INNOVATION IN THE DEVELOPMENT OF TECHNOLOGY, MEDICINE, DEAF PEDAGOGY AND SPEECH THERAPY." *Open Access Repository* 4.2 (2023): 321-330.
6. Sadikovna, Rakhimova Khurshidakhon, and Rustamova Feruzabanu. "CONTRIBUTION OF CHARLES MIKHAIL EPE TO THE EDUCATION OF DEAF CHILDREN." *Galaxy International Interdisciplinary Research Journal* 11.3 (2023): 563-566.
7. O'ghiloy, Rakhimova Khurshidakhon Sadikovna Kurbanuva. "CHILDREN WITH LOCAL MOVEMENT DEFECTS." *Confrencea* 3.03 (2023): 226-230.
8. Raximova, Xurshidaxon. "NATIONAL AND FOREIGN ADVANCED TRENDS IN HIGHER EDUCATION EFFICIENCY IMPROVEMENT." *JOURNAL OF NORTHEASTERN UNIVERSITY* (2022).
9. Sadikovna, PhD Rakhimova Khurshidakhan, and Nabiyeva Umidakhan. "ORGANIZING SOCIAL WORK ACTIVITIES OF STUDENTS WITH HEARING PROBLEMS." (2023).
10. Sadikovna, PhD Rakhimova Khurshidakhan, and Odilova Rislig'oy. "PROBLEMS OF PREPARING HIGH SCHOOL STUDENTS WITH HEARING DEFECTS FOR FAMILY LIFE." (2023).
11. Sadikovna, PhD Rakhimova Khurshidakhan, and Sharafuddinova Zuhra. "FORMATION OF MATHEMATICAL CONCEPTS OF CHILDREN WITH HEARING DEFECT USING INNOVATIVE TECHNOLOGIES." (2023).
12. Komiljon, Raximova Xurshidaxon Sadikovna Sattarova Kamola. "PEDAGOGICAL AND EDUCATIONAL SYSTEM OF EDWARD SEGEN IN SPECIAL PEDAGOGY." *Confrencea* 3.03 (2023): 63-67.
13. Sadikovna, Rakhimova Khurshidakhan. "CORRECTIONAL AND PEDAGOGICAL WORK SYSTEM OF AUDITORY-SPEECH REHABILITATION OF CHILDREN WITH COCHLEAR IMPLANTS." *International Journal of Early Childhood Special Education* 14.6 (2022).
14. Oppoqxo'jayev, Xojixuja, and Faxriddin To'ychiboyev. "MAXSUS EHTIYOJLI BOLALARNING TA'LIM-TARBIYASIDAGI TENG HUQUQLILIK MUAMMOSINI HAL ETISHDA INKLYUZIV TA'LIMNI AHAMIYATI." *Инновационные исследования в науке* 2.5 (2023): 27-33.
15. Oppoqxo'jayev, Xojixuja, and Qunduzabibi Yusupova. "MAXSUS PEDAGOGIKA FANLARINI O 'QITISHDA INNOVATSION TEXNOLOGIYALARGA ASOSLANGAN AMALIY MASHG 'ULOTLARINI LOYIHALASH." *Development and innovations in science* 2.5 (2023): 25-31.
16. Madinakhan, Makhmudova, and Abduvahobova Irodakhan. "PECULIARITIES IN THE DEVELOPMENT OF PRESCHOOL CHILDREN WITH MENTAL RETARDATION." (2023).
17. Feruza, Teshabaeva, Mahmudova Madina, and Yuldasheva Dilbar. "The essence of inclusive education in developed countries." *European Journal of Research and Reflection in Educational Sciences* Vol 8.1 (2020).

18. Sobirkhanovna, Makhmudova Madinakhan, and Akhmedova Vazirakhan. "EFFECTIVE ORGANIZATION OF CORRECTIONAL-LOGOPEDIC WORK IN CHILDREN WITH CEREBRAL PALSY." Open Access Repository 4.3 (2023): 134-141.
19. Teshaboeva, Feruza Raximovna. "Literacy education of speech impaired children as a pedagogical psychological problem." Confrencea 5.05 (2023): 299-302.
20. Nabiyev, R. Sh. "МАКТАБГАЧА YOSHDA GI AQLI ZAIF BOLALARNING SHAXSI VA SHAXSLARARO MUNOSABATI XUSUSIYATLARINI O 'RGANISH METODLARI." Science Promotion 1.2 (2023): 129-134.
21. Shukhratovich, Makhmudov Khurshid, and Tahirova Mahliyo. "Ways To Increase The Vocabulary Of Mentally Retarded Children Of Preschool Age Based On Plot Role-Playing Games." International Journal of Early Childhood Special Education 15.2 (2023).
22. Shukhratovich, Makhmudov Khurshid, and Isodullayeva Iqboloy. "PHYSIOLOGICAL FOUNDATIONS OF SPEECH ACTIVITY." Open Access Repository 4.3 (2023): 765-771.
23. Махмудова, Мадинахон Махмудов Хуршид. "Мақтабгача тарбия ёшидаги болаларни ёзиш ва ўқиш кўникмаларини эгаллашга тайёрлаш." Confrencea 4.04 (2023): 187-192.
24. Эркабоева, Нигора, et al. "Педагогик маҳорат: схема ва расмларда." Т.: "Наврўз (2012).
25. Erkaboeva, N., et al. "Pedagogical skills: in diagrams and pictures: Methodical manual." Tashkent: TDPU named after Nizami 14 (2012).
26. Эркабоева, Нигора Шерматовна. "ОСОБЕННОСТИ СОВРЕМЕННЫХ УЗБЕКСКИХ СЕМЕЙ." Ученый XXI века 4-1 (2016).
27. Khayitov L. R., Komilov O. TECHNOLOGIES FOR GROWING SPEECH OF MENTALLY RETARDED CHILDREN OF PRESCHOOL AGE //Science Promotion. – 2023. – Т. 1. – №. 1. – С. 32-35.