



**CORTICAL DYSARTHRIA: PATHOGENESIS, CLINICAL  
MANIFESTATIONS, AND CORRECTIVE APPROACHES**

**Andijan State Pedagogical Institute, Faculty of Preschool Education**

**Special Education: Speech Therapy, Group 301 student**

**Iminjonova Mokhichehra Alimardon qizi**

HYPERLINK "mailto:iminjonovamoxichexra@gmail.com"

[iminjonovamoxichexra@gmail.com](mailto:iminjonovamoxichexra@gmail.com)

**ABSTRACT:** This article systematically examines the mechanisms of cortical dysarthria, namely its pathogenesis, and speech disorders resulting from damage to the speech motor areas in the cerebral cortex. The main clinical signs of cortical dysarthria - imprecise articulation, disruption of speech tempo and rhythm, weakening of sound production processes, and impairment of complex articulatory movements - are analyzed on a scientific and theoretical basis. Information is also provided on corrective approaches used in speech therapy practice, including articulation exercises, breathing and speech coordination techniques, strengthening of phonetic and phonemic skills, and the effectiveness of neuropedagogical methods. The research findings have practical significance for speech therapists, special education teachers, and practitioners working with cortical dysarthria.

**KEYWORDS:** cortical dysarthria, cerebral cortex, pathogenesis, articulation, speech motor areas, clinical manifestations, speech disorder, corrective approaches, speech therapy, phonetic-phonemic development, neuropedagogy, speech breath development.

Dysarthria is a pronunciation disorder caused by impaired innervation of the speech apparatus muscles due to damage to the central or peripheral nervous system, and it has various clinical forms. One of these forms is cortical dysarthria, which is associated with damage to the premotor and motor cortex zones of the cerebral hemispheres. Unlike other forms, cortical dysarthria is characterized by disturbances in the programming of articulatory movements and the central organization of phonetic-





phonemic processes. It does not involve paralysis or paresis of the speech muscles, but the motor planning and sequencing of speech are disrupted.

Cortical dysarthria occurs specifically when the activity of these zones is impaired.

- Brodmann area 4 (primary motor cortex) - direct motor control of speech apparatus muscles.

- Area 6 (premotor and supplementary motor cortex) - formation of the articulation program.

- Broca's area (areas 44-45) - motor planning of speech and control of articulatory sequencing.

- Lateral prefrontal cortex - coordination of complex speech models.

- Cortical dysarthria occurs specifically when the activity of these zones is impaired.

Etiology of cortical dysarthria:

- Ischemic stroke - most often in the frontotemporal region.

- Hemorrhagic stroke.

- Traumatic brain injury.

- Tumors (glioma, meningioma).

- Encephalitis and metabolic encephalopathies.

- Degenerative diseases (Alzheimer's, Pick's disease).

In cortical dysarthria, the muscles of the speech apparatus may be healthy, but the motor program and articulatory coordination are disrupted. This process includes:

1. Disruption of motor planning - difficulties in the correct selection and sequencing of articulation elements.

2. Dysarthropic disorders - incorrect organization of the sequence of phonemes.

3. Conditions close to kinetic apraxia - difficulty initiating articulatory movements, excessive alternative movements.

4. Disruption of the prosodic system - incorrect formation of rhythm, stress, pauses, and speech tempo.

Complex of clinical signs of cortical dysarthria

1. Phonetic-phonemic disorders of speech

2. Unclear pronunciation of vowel and consonant sounds.

3. Frequent loss of articulatory positions.





4. Decrease in phonemic differentiation.
5. Sound exchanges: mutual substitution of "r-l," "t-d," "k-x," "s-sh," "b-p."
6. Inability to purposefully move the tongue.

Main directions of speech therapy approaches

1. Development of planning of articulatory movements
2. Differential teaching of sound production
3. Exercises for correcting the prosodic system
4. Organization of speech flow
5. Development of speech breathing

Cortical dysarthria is a complex disorder characterized by a central disruption of motor planning and articulatory coordination of speech. It does not involve muscle paresis or paralysis, but the programming of articulatory movements is impaired. Clinical manifestations are characterized by phonetic-phonemic disorders, apraxic elements, and disturbances of the prosodic system.

#### References:

1. Darley, F. L., Aronson, A. E., & Brown, J. R. (1975). *Motor Speech Disorders*. WB Saunders.
2. Duffy, J. R. (2019). *Motor Speech Disorders: Substrates, Differential Diagnosis, and Management*. Elsevier.
3. Enderby, P. (2013). *Frenchay Dysarthria Assessment*. Pro-Ed.
4. Maas, E., et al. (2019). "Principles of Motor Learning in Treatment of Motor Speech Disorders." *American Journal of Speech-Language Pathology*.
5. Ministry of Health of the Republic of Uzbekistan. (2020). *Clinical Guidelines for Neurological Diseases*.
6. Theodoros, D. G., & Murdoch, B. E. (1998). *Dysarthria: A Physiological Approach to Assessment and Treatment*. Nelson Thornes.
7. Jurahojaev, M. H. (2022). ORGANIZATION OF THE EDUCATIONAL PROCESS FOR CHILDREN WITH DISABILITIES IN INDIVIDUAL HOME EDUCATION. *PEDAGOGS journal*, 1 (1), 295-298.
8. Jurahojaev, M. K. O. (2022). MECHANISMS TO INCREASE THE EFFICIENCY OF INDIVIDUAL HOME EDUCATION FOR DISABLED





CHILDREN. *Mental Enlightenment Scientific-Methodological Journal*, 2022 (3), 171-180.

9. Jurakhojayev, M. Kh. Mechanisms for Improving the Effectiveness of Individual Home Education for Children with Disabilities: Dissertation for the Doctor of Philosophy (PhD) in Pedagogical Sciences. *Jizzakh-2023.*-36 pages.

10. Jurakhojayev, M. Kh. (2022). Portrait of a Home-based Individual Education Teacher / Proceedings of the III International Conference "21st Century Skills in Language Teaching and Learning."

