CONDITION

Dysarthria

Dysarthria is a motor speech condition that makes speech unclear because the muscles used for speaking are weak or poorly controlled.

WHAT IT IS
Motor speech disorder causing unclear or difficult speech

BODY SYSTEM
Nervous system and speech muscles

MAIN SYMPTOMS
Slurred speech, altered speed, quiet voice, uneven rhythm

WHAT CAUSES IT
Damage to brain, nerves, or speech muscles

HOW IT IS DIAGNOSED
Speech assessment and tests for the underlying cause

MAIN TREATMENT
Speech-language therapy and treatment of the cause

CAN IT BE CURED?
Sometimes - reversible causes may resolve

IS IT AN EMERGENCY?
Sometimes - sudden onset may signal stroke

LONG-TERM OUTLOOK
Shaped by the underlying condition and therapy response

Overview

Dysarthria is a motor speech condition. It happens when the brain, nerves, or muscles cannot control the movements needed for clear speech. The lips, tongue, jaw, voice box, and breathing muscles may be affected.

Speech may sound slurred, slow, quiet, strained, unusually fast, or uneven. Some people can still be understood easily, while others need communication aids or support from a listener.

Dysarthria does not mean that you have lost intelligence or do not know what you want to say. It affects how speech is produced. However, the condition causing dysarthria can sometimes also affect language, thinking, swallowing, or movement.

Dysarthria can begin suddenly, such as during a stroke, or develop gradually because of a

long-term neurological condition. The underlying cause is important because it shapes treatment and what to expect.

Symptoms

The main symptom is speech that sounds different or is harder for other people to understand. The exact change reflects which muscles and parts of the nervous system are affected.

Possible features include:

Symptoms may stay similar throughout the day or become worse with tiredness. In some conditions, speech changes from one moment to another.

Dysarthria is different from aphasia, which affects understanding or using language. It is also different from apraxia of speech, in which the brain has difficulty planning speech movements despite the muscles being able to move. These conditions can occur together.

- Slurred, mumbled, or indistinct speech
- Speech that is unusually slow, fast, or irregular
- A quiet, breathy, hoarse, harsh, or strained voice
- Speech with an uneven rhythm or little change in pitch
- Difficulty moving the lips, tongue, or jaw accurately
- Speaking in short phrases because of weak breath support
- Drooling or reduced control of saliva

Causes and risk factors

Dysarthria results from damage or changes affecting the nervous system or the muscles used for speech. It is a condition caused by another medical issue rather than a disease in its own right.

Possible causes include:

Certain medicines, sedatives, alcohol, or other substances can also cause temporary slurred speech. A clinician may review anything you take, but you should not stop prescribed medicine without medical advice.

Some causes are present from childhood. Others are acquired later in life. The likelihood of dysarthria is higher when a condition affects movement, muscle strength, coordination, breathing, or control of the voice.

- Stroke or a transient ischaemic attack, sometimes called a TIA
- Traumatic brain injury
- Brain tumour or brain infection
- Parkinson's disease
- Multiple sclerosis
- Motor neurone disease, also called amyotrophic lateral sclerosis
- Cerebral palsy
- Huntington's disease
- Muscular dystrophy
- Myasthenia gravis
- Damage to nerves controlling the face, tongue, or throat

Diagnosis

A speech and language therapist can assess whether your speech pattern is consistent with dysarthria. During the assessment, you may be asked to talk, read aloud, repeat sounds, count, or hold a vowel sound.

The therapist may examine how you:

A neurological examination may check muscle strength, reflexes, coordination, sensation, and movement. This helps identify which parts of the nervous system may be involved.

Further tests are chosen according to your symptoms and medical history. They may include brain imaging, such as an MRI or CT scan, blood tests, nerve and muscle tests, or a swallowing assessment. There is no single blood test or scan that confirms every case of dysarthria. The speech assessment identifies the communication problem, while other tests look for its cause.

- Move your lips, tongue, jaw, and soft palate
- Control your voice and breathing
- Change speech speed, rhythm, and loudness
- Produce individual sounds and connected speech
- Communicate in everyday situations

Treatment and management

Treatment focuses on improving communication and managing the condition responsible for the speech changes. The plan is based on your symptoms, needs, daily activities, and whether the cause is stable, improving, or progressive.

Speech and language therapy may help you:

Exercises are not suitable for every type of dysarthria. For example, muscle-strengthening work may not help when strength is not the main problem. A speech and language therapist can select techniques that fit the cause and avoid unnecessary fatigue.

Treatment of the underlying condition may also improve speech. This could involve stroke rehabilitation, treatment for an infection, management of a neurological condition, or adjustment of a medicine that is contributing to symptoms. Improvement is not always possible, particularly when the cause is progressive.

If speech is difficult to understand, augmentative and alternative communication can help. This includes alphabet boards, picture or text displays, speech-generating devices, and communication apps. These tools support speech rather than preventing you from continuing to speak.

People with a progressive condition may consider recording commonly used phrases or creating a personalised digital voice while speech remains clear enough. This is known as message banking or voice banking.

- Speak more slowly or use clearer sound patterns
- Improve breath support and voice strength
- Use pauses and shorter phrases
- Practise movements needed for speech
- Reduce background noise and face the listener
- Use gestures, writing, or communication technology

Complications

Dysarthria can make conversations tiring and may lead to misunderstandings. Some people avoid telephone calls, work discussions, social events, or unfamiliar listeners. This can affect confidence, relationships, education, and employment.

Communication difficulty may also make it harder to describe pain, symptoms, or personal choices. A communication card, phone app, or written summary can help in appointments and

emergencies.

Dysarthria does not itself cause swallowing problems. However, the same nerve or muscle condition may also cause dysphagia, meaning difficulty swallowing. Coughing during meals, choking, a wet-sounding voice after drinking, or repeated chest infections should be assessed.

Prevention

Dysarthria cannot always be prevented. This is especially true when it results from an inherited condition, cerebral palsy, or a neurological disease whose cause cannot currently be avoided.

Reducing the risk of stroke and head injury may prevent some cases. This can include managing blood pressure and other cardiovascular risks, not smoking, using seat belts, and wearing suitable protective equipment for sports or hazardous work.

Taking medicines only as directed and avoiding unsafe combinations of alcohol, sedatives, or other substances can reduce the chance of temporary speech impairment. If a prescribed medicine appears to affect your speech, seek advice rather than changing it on your own.

Living with it and what to expect

The course of dysarthria is tied closely to its cause. After a stroke or brain injury, speech may improve over months as the nervous system recovers and you practise communication skills. Some changes may remain.

When the underlying condition is stable, dysarthria may also remain fairly stable. Therapy and communication strategies can still make speaking easier and reduce misunderstandings.

With progressive neurological conditions, speech may become quieter or less clear over time. Early support allows you and the people close to you to learn strategies and consider communication technology before it is urgently needed. The rate of change cannot always be predicted.

Fatigue, stress, illness, and noisy surroundings can make communication harder even when the underlying condition has not changed. Planning important conversations for times when you have more energy may help.

Many people continue working, studying, maintaining relationships, and taking part in community life. Adjustments may include extra conversation time, written follow-up, remote-chat tools, amplification, or communication devices. These supports are ways to preserve independence, not signs that speech therapy has failed.

When to get medical help

Call emergency services if speech suddenly becomes slurred or difficult, especially with facial drooping, arm weakness, numbness, confusion, vision changes, severe imbalance, or a sudden severe headache. These can be signs of a stroke. Note the time symptoms began, and do not drive yourself for care.

Emergency assessment is also appropriate after a significant head injury or when speech changes occur with severe breathing difficulty, loss of consciousness, or choking that does not clear.

Seek prompt medical advice for a new speech change that is not sudden but has no clear explanation. You should also arrange assessment if speech is steadily worsening, interfering with daily communication, or accompanied by new weakness, tremor, swallowing difficulty, or changes in balance.

Routine follow-up is useful when established dysarthria changes gradually, communication strategies stop working, or you need help at work, school, or home. A speech and language therapist can reassess your needs and discuss additional support.

Common questions

Is dysarthria the same as aphasia?

No. Dysarthria affects the physical production of speech. Aphasia affects language, including finding words, forming sentences, reading, writing, or understanding others. A person can have both, particularly after a stroke or brain injury.

Can dysarthria go away?

Sometimes. Temporary dysarthria may resolve when a medicine effect, intoxication, infection, or another reversible cause is treated. Speech may improve during recovery from a stroke or injury. Dysarthria caused by a long-term or progressive neurological condition may persist or worsen, although therapy can still improve communication.

Does dysarthria affect intelligence?

Dysarthria alone does not reduce intelligence. You may know exactly what you want to say even when other people cannot understand your speech. Some underlying brain conditions can separately affect memory, language, or thinking, so these may be assessed when relevant.

Can stress cause slurred speech?

Stress and tiredness can make existing dysarthria more noticeable. They should not

automatically be assumed to explain new slurred speech. Sudden slurring needs emergency assessment because it may be a sign of stroke.

What exercises help dysarthria?

There is no single exercise programme for every type. Helpful techniques may focus on breathing, voice, speech rate, sound clarity, or communication strategies. Some muscle exercises may be ineffective or tiring in certain conditions, so an individual assessment is important.

Can dysarthria affect swallowing?

Dysarthria and swallowing difficulty can occur together because speaking and swallowing use some of the same nerves and muscles. One does not necessarily cause the other. Coughing or choking with food or drink, unexplained weight loss, or repeated chest infections needs assessment.

Sources

- Dysarthria , National Institute on Deafness and Other Communication Disorders
- Dysarthria in Adults , American Speech-Language-Hearing Association Practice Portal
- Dysarthria (difficulty speaking) , NHS
- Stroke and transient ischaemic attack in over 16s: diagnosis and initial management , National Institute for Health and Care Excellence, guideline NG128
- Dysarthria , Mayo Clinic