

DYSARTHRIA

WHAT IS DYSARTHRIA?

Dysarthria is a motor speech disorder that results from stroke, brain injury, brain tumor or other neurologic conditions. Dysarthria is characterized by weakness, incoordination or paralysis of the muscles used for speech production. It generally effects one side of the face and/or neck. In some cases, the muscle deficits are easy to see, such as facial drooping on one side. Other types of muscle impairments are less obvious, such as those involving the tongue, roof of the mouth, or the throat. Dysarthria does NOT affect intelligence or language function, but may affect **speech, voice** and/or **swallowing**.

EFFECT ON SPEECH

As a result of muscle weakness and incoordination, speech may sound slurred or sluggish with words often getting squeezed together. Sounds may be produced slowly, with great effort and words may be distorted. For example, an individual may omit the final sound of a word (“star” for start), an unaccented syllable (“cept” for accept), or a part of a consonant combination (“tove” for stove). As a result, the speech may be difficult to understand. Remember, difficulty producing words does not necessarily correlate with difficulty understanding or using language.

EFFECT ON VOICE

Dysarthria may effect voice if the muscles of the throat are weak or uncoordinated. If a vocal cord moves sluggishly or incompletely, the voice may sound breathy or hoarse. Additionally, the voice may be softer than usual with a monotone sound. If the muscles of the roof of the mouth are affected, the voice may sound more nasal.

EFFECT ON SWALLOWING

Muscle weakness that causes dysarthria can also effect the ability to swallow solids and liquids. Some patients have difficulty chewing solid foods and may have food residue on the weaker side of his/her mouth after swallowing. Additionally, reduced sensation in the mouth/cheeks may decrease awareness of food residue remaining in the mouth. Some patients may not be able to close his/her lips tightly around a fork, spoon, cup, or straw and this may result in spillage out of the mouth when feeding. If the muscles of the neck and throat are affected, additional swallowing problems may be present. A modified diet may be needed as the patient may be at risk for aspiration (entrance of food/liquid into the airway).

ASSOCIATED PROBLEMS

- Drooling**
- Impaired Facial Expression**
- Apraxia:** a motor programming deficit
- Aphasia:** a language disorder
- Dysphagia:** a swallowing disorder
- Hemiparesis:** extremity weaknesses on one side of the body; may affect ability to write/draw, walk, speak

TREATMENT TECHNIQUES

Treatment for Dysarthria varies depending on the different muscles that are affected. Common treatments include:

- Oral motor exercises:** Movement to improve the strength and range of motion of the oral musculature.
- Over-articulation:** Exaggerated movements of the lips, tongue and cheeks.
- Phrasing/Pacing:** Slowing down rate of speech by producing a limited number of syllables/words per breath.
- Breath Support:** Increasing air for optimal voicing, loudness and phrasing.
- Prosody/Intonation:** Exercises to improve the melody of speech.
- Alternative Communication:** In cases of severe dysarthria, a board displaying pictures, letters, words and/or phrases may be used to aid in communication. In cases of progressive neurological disease (e.g ALS, Huntington’s Disease), nonverbal communication may become a person’s primary means of communicating. In such cases, electronic devices are sometimes utilized.
- Diet Modification:** if Dysphagia is present
- Alternating Consistencies:** Drinking liquid after eating solids to decrease remaining food residue in the mouth.
- Lingual sweep/Finger sweep:** Using tongue/finger to clear pocketed food from the side of the mouth if it is unable to clear after drinking liquid.

COMMUNICATION STRATEGIES:

- ❑ Encourage the person to speak word by word and with longer pauses between words.
- ❑ Encourage the person to over-emphasize the sounds in words and exaggerate the syllables in longer words.
- ❑ Encourage the person to speak in short phrases versus long sentences.
- ❑ Cue the person to re-word an idea if repetition of the initial message is not understood.
- ❑ Suggest trying to spell a word that is hard to understand, even if only the first one or two letters can be provided.
- ❑ Utilize writing/drawing.
- ❑ Encourage natural gestures.
- ❑ Encourage use of augmentative/alternative communicative system if applicable.

IMPORTANT POINTS TO REMEMBER:

- ❑ Dysarthria is a motor speech disorder resulting from decreased muscle strength and coordination. A person with dysarthria *only* does not have a loss in intellect or language function.
- ❑ Do not pretend to understand speech that is not clear. An honest statement of “I’m sorry, but I cannot understand what you are saying” is often less frustrating.
- ❑ Repeat back what you *did* understand so the patient only has to repeat what was not understood.
- ❑ Encourage the person to wear well-fitting dentures or to secure them with adhesive.
- ❑ Pay attention to meaningful facial expressions and the tone/melody of a person’s message, as this can aid in understanding them.
- ❑ Encourage the person to practice oral motor exercises using a mirror.
- ❑ The ability to imitate oral motor movements and exaggerated articulation is an important factor for therapeutic benefit.
- ❑ Contact a **Speech-Language Pathologist** with any questions/concerns.

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