# Managing Speech & Swallowing Impairments in Ataxia



# **How Ataxia Affects Speech & Swallowing**

Ataxia impacts the cerebellum, which coordinates movement. This can cause:

#### **Speech Changes**

- Breath & Voice: Running out of air mid-sentence, difficulty controlling pitch and volume, voice sounding breathy or hoarse
- Resonance: Voice may sound unusually nasal or "stuffy"
- Articulation: Sounds may be distorted, syllables may drop (e.g., "telescope" → "tel'scope"), speech may feel slurred
- Rate & Rhythm: Speech can become slow, uneven, or choppy

#### **Swallowing Changes**

- · Coughing while eating and drinking
- Choking on foods, liquids, pills, or saliva
- Needing to concentrate so things don't "go down the wrong pipe"
- · Difficulty controlling food/drink in the mouth
- Trouble initiating a swallow
- Poor coordination of breathing and swallowing, increasing choking risk
- Food or pills sticking in the throat

#### **Evaluation & Treatment**

Speech-language pathologists (SLPs) are the primary providers who manage speech and swallowing difficulties. SLPs use:

- Assessment:
  - Office evaluation
  - X-ray and endoscopic swallow studies

#### Treatment Approaches:

- Rehabilitation: Exercises to retrain muscles and improve coordination
- Compensation: Strategies to mitigate symptoms such as posture changes, modifying food textures, or changing the environment
- Education & Caregiver Training: To improve communication and meal safety

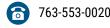
**Note:** Tell your doctor if you notice changes in your speech or swallowing. They may refer you to a specialty physician, such as a gastroenterologist or ENT, for further evaluation. They can also refer you to a speech-language pathologist (SLP).

## Assistive Technology for Communication

Augmentative and Alternative Communication Devices (AAC) = tools to support or replace speech, from simple to high-tech

- Low-tech: Gestures, writing, picture boards.
- High-tech:
  - Apps on smartphones/tablets.
  - Speech-generating devices (often covered by insurance).
  - Eye-tracking or head-pointing controls for those with motor challenges.











## Voice & Message Banking

- Voice Banking: Record hours of speech to create a synthetic version of your natural voice.
- Message Banking: Record meaningful phrases for playback later.
- Tip: Start early if interested.

## **Assistive Tools for Swallowing**

- Adaptive utensils & cups: Designed to control sip size or improve grip.
- Thickening agents: Make liquids easier to control.
- Safe Straw / Flow-Control Cups: Limit liquid volume per sip.
- Posture adjustments: Only under SLP guidance—some positions can help, others can harm.
- Sensory modifications: Cold, sour, or fizzy drinks may improve swallow safety for some.

## **Daily Strategies**

- Eat/drink in a quiet setting with minimal distractions.
- Take small bites and sips.
- Swallow twice if needed before the next bite.
- If you feel that dry or tough foods stick in your throat, consider adding extra moisture to them (e.g., sauces, gravies, condiments).
- If it is hard to swallow pills with liquids, try taking them with yogurt or applesauce.
- Keep a journal of symptoms-helpful for tracking changes and guiding care.
- See an SLP promptly if you notice changes.

## **Key Takeaways**

- Ataxia can cause gradual changes in speech and swallowing-early intervention helps.
- A combination of therapy, assistive technology, and adaptive tools can maintain communication and safety.
- Work closely with healthcare providers for personalized recommendations.

#### Resources

Ask your SLP for funding options, device training, and support organizations such as the National Ataxia Foundation.

- Find a Speech Language Pathologist (SLP)
  - Ataxia Centers
  - American Speech-Language-Hearing Association (ASHA)
- Assistive Technology & Strategies to Mitigate Speech & Swallowing Impairments in Ataxia 2025 Annual Ataxia
   Conference Lecture
- FA & Speech Toolkit

#### **Collaborators:**

Allison Hilger, PhD, CCC-SLP

Assistant Professor University of Colorado Boulder Department of Speech, Language, and Hearing Sciences Director of the CO Motor Speech Lab www.colorado.edu/lab/motor-speech/

Caitlin Cloud, M.A., CCC-SLP
Speech-Language Pathologist & PhD Student
University of Nebraska-Lincoln



