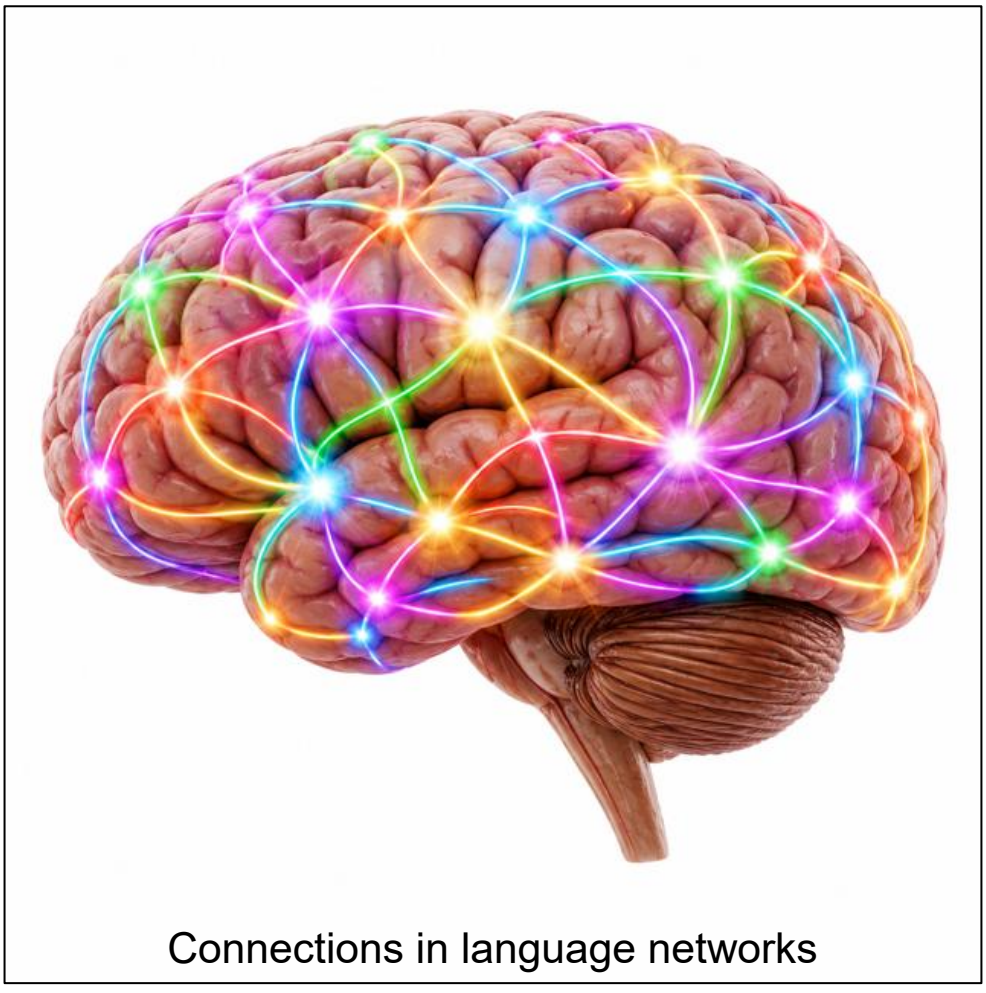
Neuroplasticity & Aphasia Recovery

Sheltering Arms Institute
A collaboration with VCU Health

Your brain has **connections** that **make up language networks**. They help us communicate.



Connections in language networks

When these **connections** are **damaged**, it causes **aphasia**.

Aphasia is a condition that affects **language.**

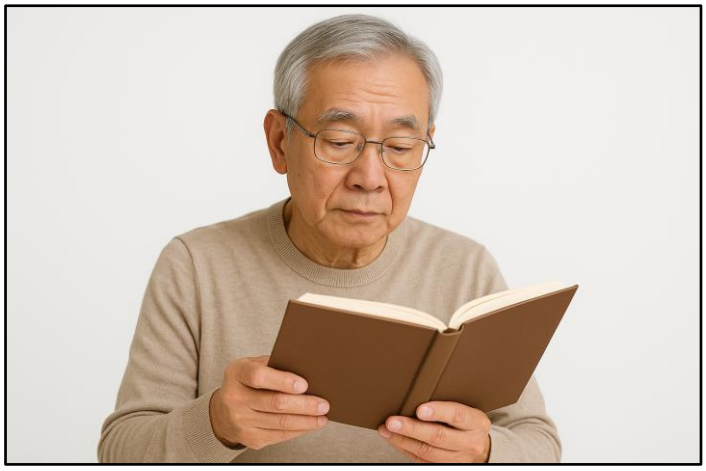
It causes **trouble** with:



Speaking



Understanding

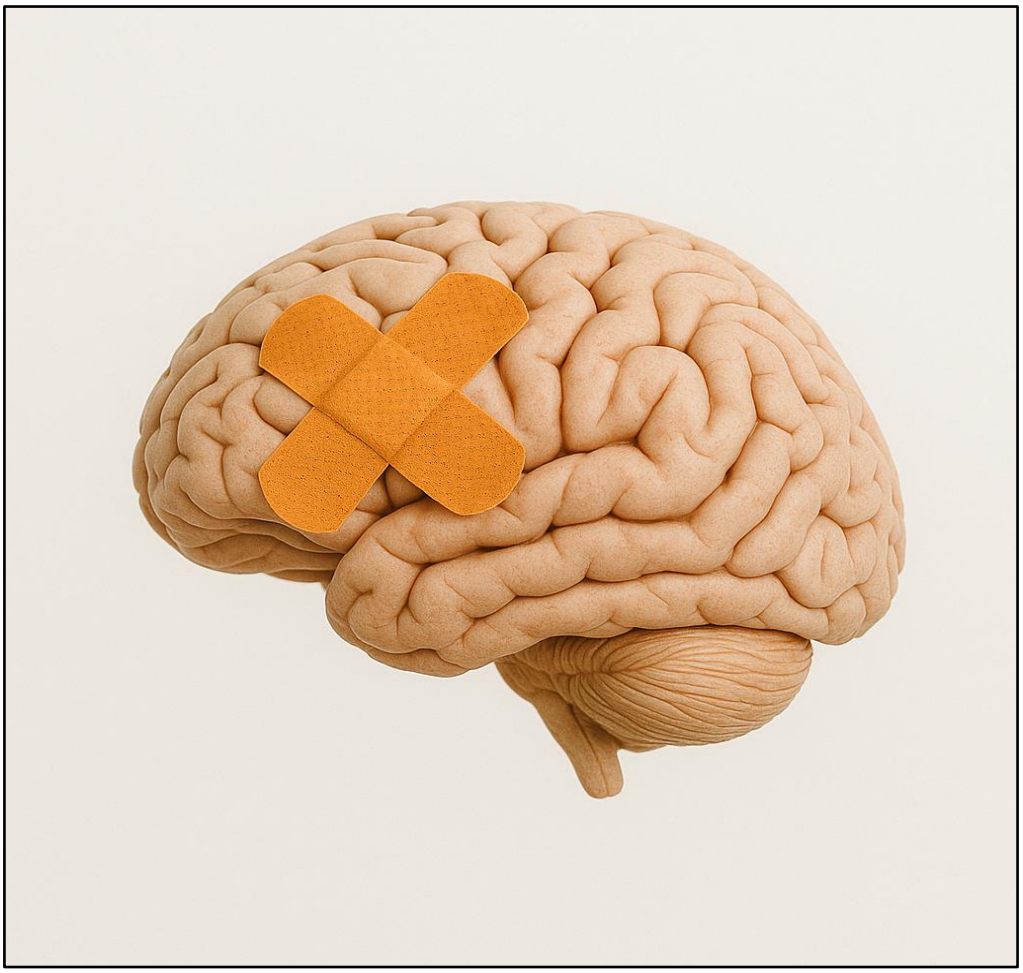


Reading



Writing

Your brain can **heal, change, and reorganize** itself after a stroke or a brain injury.



Healing Brain

This is called **<u>neuroplasticity</u>.**

The brain creates **new** connections that **work around** the **damage**.



New connections

Some old connections get **stronger**.



Stronger connections

Speech therapy helps the brain make these changes.

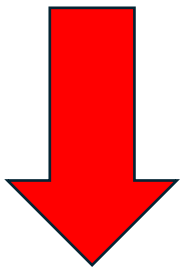


Speech Therapy

How you **practice communicating** impacts <u>how much</u> your brain learns and **heals**.



Language skills **get stronger** when you **practice using them.**



If you **stop trying to communicate**, it can get **harder.**

- Keep **trying to talk** even when it feels hard.
- **Give yourself time** to express your thoughts.

- The brain **gets better** when you **practice** the **exact skills** you want to improve.

- **Share** your **goals** with your SLP, so speech therapy can focus on **<u>what matters</u>** to you.

Example: If you want to **get better at writing**, you need to **practice writing**.





Practicing writing

Example: If you want to **be able to order** fast food, you should **practice ordering** fast food.



Saying “Cheeseburger and Fries”

- The brain learns when you **practice things that are interesting** and **meaningful.**

- Practice talking about things that **relate to your life.**



Hobbies and interests



Favorite music



Pets



Family

- The **more** you practice, the easier it gets.

- **Repeating** the same exercises **again and again** helps your **brain learn**.

- Practice communicating **often**.

- Practice communicating in **different places** and with **different people**.



Practice talking

Therapy should **feel** a little **challenging**.

- Practicing hard tasks helps your brain learn.

- If it's **too easy**, you may **not improve** as much.

- Your SLP can help you find the **right level** of difficulty.

- Practicing **one skill** can help **improve related skills** and make everyday communication easier.

Example: If you practice the word "**apple,**" you may also improve **related words**.



Apple



Peach



Pie



Orchard

Example: If you **practice** the word “apple,” **in therapy,** you may be able to **use** that word later **while grocery shopping**.



Practice “apple” **in therapy.**

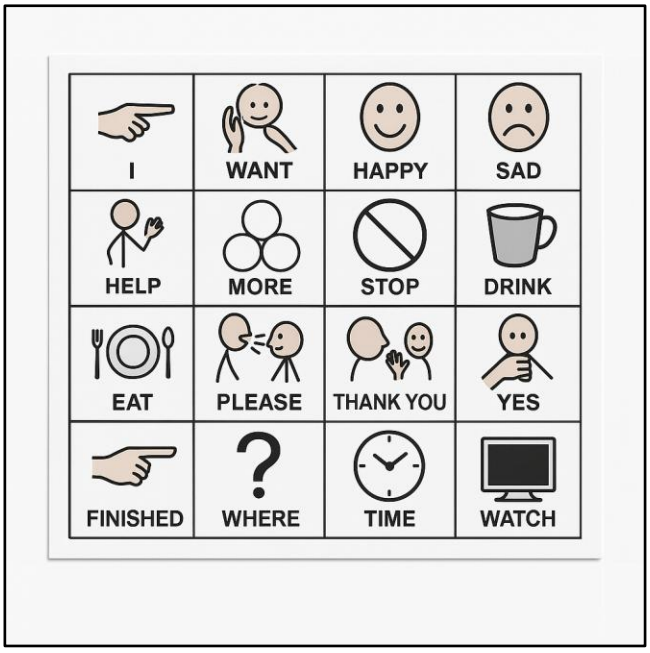


Say “apple” **while grocery shopping.**

- Try **not** to **rely <u>only</u>** on your communication **strategies or tools**.



Pointing



Communication board

- Even though they can be **useful**, you may **not get as much practice** talking.

Every person's recovery is **different**.

- We don't know **how fast** or **how much** your aphasia **will improve**.

- Aphasia recovery takes:
  - **Time**
  - **Practice**
  - **Support**

- You can get better every day, but it may **feel slow sometimes.**

- Most people make the **<u>most</u> progress** in the **first few months** after their injury.



1st few months

- You can **keep making progress** for a **<u>long time</u>**.

- **Regular, meaningful** communication **practice** and **speech therapy** helps your brain heal.

Kiran, S., & Thompson, C. K. (2019). Neuroplasticity of language networks in aphasia: Advances, updates, and future challenges. *Frontiers in Neurology*, *10*, 295. https://doi.org/10.3389/fneur.2019.00295

OpenAI. (2026). *A series of AI-generated photographs related to aphasia* [AI-generated images]. ChatGPT (GPT-5, DALL·E). https://chat.openai.com