

Brain Plasticity – Rewiring Your Mind

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You may or may not have heard the word ‘brain plasticity’ at some point in your life. What on earth are these two words doing together and what does it mean?

What Is Brain Plasticity?

Brain plasticity, also known as [neuroplasticity](#), refers to your brain's ability to change and adapt. The word ‘plasticity’ refers to something that is easily shaped or adaptable – so think of clay instead of plastic. During the rehabilitation process, we’re interested in how neuroplasticity helps with recovery by allowing your brain transfer function from one area to another.

What Happens to the Brain after Stroke?

Different parts of the brain are responsible for different activities. When a stroke damages one part of the brain, it impairs your ability to carry out the functions it once controlled, like thinking, learning, awareness, judgement, and problem solving. This can cause:

- Reduced concentration
- Slowed information processing
- Difficulty learning new tasks

Your brain **will attempt to recover** in one of 3 ways:

1. Start to function again after time passes
2. Change the way tasks are performed
3. Healthy part of the brain will take over the damaged part of the brain's functions – brain plasticity

How Does Brain Plasticity Work?

Your brain is dynamic and very capable of change, and brain plasticity allows nerve cells to reorganize and repair themselves.

Yes, all on their own!

So when your brain is damaged by a stroke, healthy brain cells take over the jobs that the damaged part of the brain can't carry out anymore. This responsibility transfer creates new synaptic connections, or pathways, to the unaffected parts of the brain. Think of it as paving new roads in your mind.

How Repetition Maximizes Recovery

During recovery, it's extremely beneficial to repeat your **rehab exercises** over and over. This creates strong pathways and gets you on the fast-track to recovery.

If you *aren't* diligent about your rehabilitation exercises, however, **your brain will eliminate the skills through a phenomenon known as learned nonuse**. Your brain doesn't consider the skills important anymore because they don't happen frequently.

So remember, repetition is key.

Now that you understand how your brain rewires itself, how will you apply this knowledge to your recovery?