

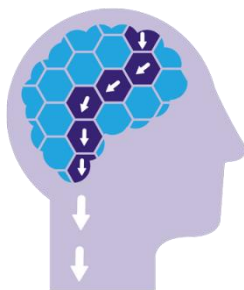
Neuroplasticity: Re-wiring your brain

Your brain is amazing! It has the ability to re-wire itself, allowing you to improve skills such as walking, talking and using your affected arm. This process is known as neuroplasticity. It begins after a stroke, and it can continue for years.

How does it happen?

Brain cells send messages around the brain and to the body. A stroke damages some of the connections inside the brain, meaning the messages can't send, or aren't strong enough. When you do rehabilitation activities, it encourages the brain to make new connections in the healthy parts of the brain. The more you practice, the more connections you build and the stronger they get. Building up those connections makes your brain better at controlling your body, and lets you do more things you want to do.

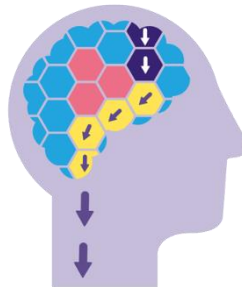
You can help this process by practising rehabilitation activities. There is no time limit on neuroplasticity, and it doesn't only happen during therapy. Every time you take an extra step, say a new word, or do a hand exercise, it helps the brain make new connections. To give the brain the best chance of recovery, you need to practice the things that are challenging – and you need to do it regularly and repetitively. Your therapist will help you to set targets that are specific to you - to help you to know how often and how much to practice exercises or tasks. They might advise you to aim for 100's or 1000's of times per day! Many people find it helpful to keep a record of practice repetitions – you may be surprised how much you can do, and how this increases over time.



1. Signals go from one cell to another forming a connection in the brain.



2. When a stroke kills brain cells, it damages the connection.



3. Brain cells can sometimes form new connections, and start sending signals again.