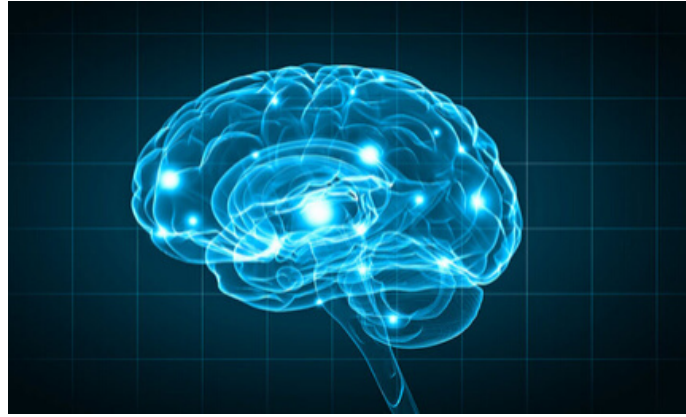




# NEUROPLASTICITY



**Mental training can shape the brain for greater wellbeing.**

**Neuroplasticity** is our brain's amazing capacity to change, adapt, and rewire depending on how we use it.

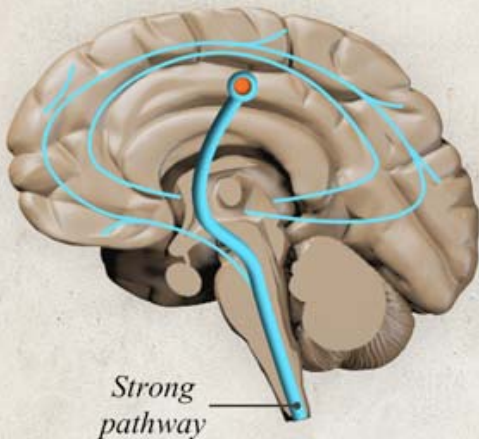
As the Center for Healthy Minds founder Richard Davidson explains, *"Our brains are constantly being shaped wittingly or unwittingly – most of the time unwittingly."* We are currently living in an "attention economy" where everyone and everything (advertising, the news, social media, technology) is vying for a piece of our attentional pie and shaping our brains accordingly. With an overflow of information and distractions, our attention is under siege and can atrophy over time.

This is one key reason why mindfulness is becoming necessary in the modern world. It's one of the most effective ways to preserve, and in fact strengthen our attention. Just like a muscle, our attention strengthens in response to exercises – the more we practice meditation, the stronger our focus gets. This is one example of how neuroplasticity works.

There are many concrete benefits to exercising the brain through meditation – from improved focus to greater resilience – all of which positively impact our wellbeing.

## Pathways

Neural pathways **connect relatively distant areas of the brain or nervous system**, each pathway is associated with a particular action or behavior.



Every time we think, feel or do something, **we strengthen this pathway. Habits are well travelled pathways** – our brain finds these things easy to do.

## Neuroplasticity



New thoughts and skills **carve out new pathways.**



Repetition and practice **strengthen these pathways**, forming new habits.



Old pathways **get used less and weaken.**

With **repeated and direct attention** towards a desired change, we all have the ability to **rewire our brains.**

### MAKING CONNECTIONS:

Within your brain, nerve cells called neurons signal to each other, forming connections that enable everything from bodily movements to thoughts and emotions. These networks are “roads” of sorts, and the more often they’re used, the more established they are in the brain – just like a road or path becomes worn over time.

### SCULPTING:

There are different ways neuroplasticity works. Your brain can form new connections, produce new cells, and also sculpt existing connections to be more efficient. Because our brains at birth contain many more cells than we need for optimal functioning, sculpting is the most common form of neuroplasticity as we develop. This is the brain’s way of being efficient and losing cells from pathways not currently in use. Keep in mind that neuroplasticity isn’t good or bad; it’s neutral and always happening. However, through our work, we’re learning we can shape our brains in more adaptive and beneficial ways by cultivating healthy habits of mind. The invitation is to use these insights to cultivate well-being in your own life.

## **NEW CHALLENGES**

When given a challenging situation your brain hasn't encountered before, it can reorganize and restructure to respond to that situation. The more often your brain is exposed to that new challenge - like learning a musical instrument, for instance - the more it reorganizes and makes that path more established. In addition, the more often your brain is exposed to difficult emotional challenges that are successfully navigated by healthy forms of emotion regulation, the more stable and enduring the neural pathways will become that promote well-being.

## **CULTIVATING WELLBEING**

Plasticity is present throughout life, not just in early development. Meditation is one highly effective method of intentionally training our brains to improve well-being. A growing number of studies show that people who are anxious, depressed, or stressed-out can intentionally activate other networks in the brain associated with happiness and find relief from various emotions and pain.