A good place to start when it comes to mindfulness and healing is to look at the relationship between stress and illness. Stress causes the release of adrenaline and cortisol, which causes inflammation in the body and can lead to chronic muscle tension, weakened immunity, high blood pressure, digestive problems and insomnia. It can also lead to anxiety and depression if left untreated. Stress shrinks the prefrontal cortex and hippocampus, two key brain areas for learning and functioning. It even affects us on a genetic level, turning on inflammatory genes and speeding up the rate of telomere shortening, a marker of biological ageing.

We can think of stress as the activation of our fight-or-flight response. When faced with a physical threat like a shark, our amygdala (the brain’s fear centre) fires up and activates the response. This helps us escape or fight our way out of danger. However, we also activate this response in the absence of any physical threats—like worrying about deadlines, dwelling on mistakes we have made and getting caught in negative self-talk. The brain doesn’t know the difference between thinking about these things and them actually happening. The amygdala fires up anyway and hijacks the brain. Mindfulness helps us recognise that we are triggering this response by thinking about things that aren’t actually happening. When we notice we are doing this and bring our attention back to the present moment (by focussing on breath or what is happening in the senses), it disconnects the stress response. If we can stay focused and present during the day, we don’t trigger this response in the first place.

Essentially, we have a use-it-or-lose-it brain. When we activate a brain area, we strengthen it. We create new synapses (connections) between the 100 billion neurons there. Research shows we spend around 60 percent of our lives distracted and thinking about other things, meaning that most of the time we are activating the default mode network (associated with mind wandering and mental chatter) and the amygdala. But when we focus our attention on the present without judging or evaluating the experience, we activate (and strengthen) the prefrontal cortex. This part of the brain is associated with the “executive functions” like attention, memory, self-awareness and emotional balance. Therefore, all of these get stronger when we practise mindfulness. At the same time, the default mode network stops getting activated—and naturally starts to weaken.

My own mindfulness practice is focused on waking up to life, more than just managing stress. People who meditate start having moments of clarity amongst the daydreaming and negative thinking. These vivid moments are like waking up out of a daydream. As I continue my practice, I am having more and more moments like this and have noticed they are joining up. I’m interested to know what happens when they become one continuous experience of awakening. The important thing is that this work, in its essence, is universal and of potential benefit to anyone. We all have minds that wander and get caught up in distraction and negative thinking. And we can all train our minds—whether it’s through meditation or just making an effort to be more mindful in everyday life. Even just a little bit of training can be life changing.

Dr Richard Chambers is a clinical psychologist and an internationally recognised mindfulness expert. He works with businesses and educational institutions, using mindfulness to improve performance, wellbeing and leadership. Learn more, and download his meditations and courses at drrichardchambers.com