Silence is Very Important for Our Brains

As the old saying goes, "Healthy body, healthy mind." It's become common knowledge that exercise does wonders for human beings in numerous different ways. Not only does it release endorphins, making us feel great, but it's been seen to affect the brain in positive and sometimes unexpected ways.

Now scientists are discovering that silence is one more thing we should be seeking out for our own good.

This might not come as a surprise to many of you. I can definitely believe it, as a person who cherishes his alone time and who gets easily overstimulated when there's too much going on around me.

Regenerating Brain Cells

Published in the *Brain*, *Structure and Function* science journal, one 2013 study used mice to analyze the effects that sound, noise and silence had on them. Looking at brain activity in the mice, researchers closely watched how different types of noise and silence affected the functioning of their brains.

Silence was initially meant to be the control group in the study, but researchers quickly discovered something exciting. Exposing the mice to at least two hours of silence each day triggered the development of new cells in the hippocampus (the part of the brain linked to memory, emotion and learning).

"We saw that silence is really helping the new generated cells to differentiate into neurons, and integrate into the system," says researcher Imke Kirste.

Stress Relief

Noise, on the other hand, has been seen to have a negative effect on our brains, as it increases production of stress hormones. Even when we are sleeping, the brain is able to internalize and process the noises we hear. Which means that people living in urban environments, with almost constant noise, are more at risk for chronic, increased levels of stress hormones.

One study, published in *Heart* journal, found that even just a couple minutes of silence can relax a person more than listening to music designed to relax you. These conclusions were based on changes in <u>blood pressure and blood circulation</u> in the brain.

Silence Helps Us Recharge Cognitively

One thing that has been researched quite thoroughly is noise pollution and how it affects cognitive task ability. In both work and school settings, noise has been seen to reduce task performance capabilities, decrease motivation to work, and increase the chance of errors while working.

The areas most affected by noise? Memory, reading attention, and problem solving. In ine with this data, many studies have found that children who work in homes or classrooms that are near airplane flight routes, train tracks, and highways, exhibit lower scores in reading and develop their cognitive and language skills slower.

There is some positive news on this front, however. 'Attention restoration' theory posits that our brains are capable of regenerating any lost cognitive capabilities by being in environments that feature low levels of sensory stimulation; or, in other words, by giving your brain a break.

So, use this information wisely to consider the potential impact that noise may have on you or your loved ones. Buying a new home for cheap because it's in a noisy location might not be the best idea, for you or your children. If you're struggling to cope in a busy, urban environment, think about relocating to a place with less going on, and more silence throughout the day.

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