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The Benefits of Playing Music Help Your Brain More Than Any Other Activity

Learning an instrument increases resilience to any age-related decline in hearing.

Inc. | John Rampton



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Brain training is big business. Companies like BrainHQ, Lumosity, and Cogmed are part of a multimillion-dollar business that is expected to surpass \$3 billion by 2020. But does what they offer actually benefit your brain?

Researchers don't believe so. In fact, the University of Illinois determined that there's little or no evidence that these games improve anything more than the specific tasks being trained. Lumosity's maker was even fined \$2 million for false claims.

Why Being a Musician is Good for Your Brain

So, if these brain games don't work, then what will keep your brain sharp? The answer? Learning to play a musical instrument.

Science has shown that musical training can change brain structure and function for the better. It can also improve long-term memory and lead to better brain development for those who start at a young age.

Furthermore, musicians tend to be more mentally alert, according to new research from a University of Montreal study.

"The more we know about the impact of music on really basic sensory processes, the more we can apply musical training to individuals who might have slower reaction times," said lead researcher Simon Landry.

"As people get older, for example, we know their reaction times get slower," said Landry. "So if we know that playing a musical instrument increases reaction times, then maybe playing an instrument will be helpful for them."

Previously, Landry found that musicians have faster auditory, tactile, and audio-tactile reaction times. Musicians also have an altered statistical use of multisensory information. This means that they're better at integrating the inputs from various senses.

"Music probably does something unique," explains neuropsychologist Catherine Loveday of the University of Westminster. "It stimulates the brain in a very powerful way because of our emotional connection with it."

Unlike brain games, playing an instrument is a rich and complex experience. This is because it's integrating information from the senses of vision, hearing, and touch, along with fine movements. This can result in long-lasting changes in the brain. These can be applicable in the business world.

Changes in the Brain

Brain scans have been able to identify the difference in brain structure between musicians and non-musicians. Most notably, the corpus callosum, a massive bundle of nerve fibers connecting the two sides of the brain, is larger in musicians. Also, the areas involving movement, hearing, and visuospatial abilities appear to be larger in professional keyboard players.

Initially, these studies couldn't determine if these differences were caused by musical training or if anatomical differences predispose some to become musicians. Ultimately, longitudinal studies showed that children who do 14 months of musical training displayed more powerful structural and functional brain changes.

These studies prove that learning a musical instrument increases gray matter volume in various brain regions, It also strengthens the long-range connections between them. Additional research shows that musical training can enhance verbal memory, spatial reasoning, and literacy skills.

Long-Lasting Benefits for Musicians

Brain-scanning studies have found that the anatomical change in musicians' brains is related to the age when training began. It shouldn't be surprising, but learning at a younger age causes the most drastic changes.

Interestingly, even brief periods of musical training can have long-lasting benefits. A 2013 study found that even those with moderate musical training preserved sharp processing of speech sounds. It was also able to increase resilience to any age-related decline in hearing.

Researchers also believe that playing music helps speech processing and learning in children with dyslexia. Furthermore, learning to play an instrument as a child can protect the brain against dementia.

"Music reaches parts of the brain that other things can't," says Loveday. "It's a strong cognitive stimulus that grows the brain in a way that nothing else does, and the evidence that musical training enhances things like working memory and language is very robust."

Other Ways Learning an Instrument Strengthens Your Brain

Guess what? We're still not done. Here are eight additional ways that learning an instrument strengthens your brain.

1. Strengthens bonds with others. This shouldn't be surprising. Think about your favorite band. They can only make a record when they have contact, coordination, and cooperation with one another.

2. Strengthens memory and reading skills. The Auditory Neuroscience Laboratory at Northwestern University states this is because music and reading are related via common neural and cognitive mechanisms.

3. Playing music makes you happy. McMaster University discovered that babies who took interactive music classes displayed better early communication skills. They also smiled more.

4. Musicians can process multiple things at once. As mentioned above, this is because playing music forces you to process multiple senses at once. This can lead to superior multisensory skills.

5. Music increases blood flow in your brain. Studies have found that short bursts of musical training increase the blood flow to the left hemisphere of the brain. That can be helpful when you need a burst of energy. Skip the energy drink and jam for 30 minutes.

6. Music helps the brain recover. Motor control improved in everyday activities with stroke patients.

7. Music reduces stress and depression. A study of cancer patients found that listening to and playing music reduced anxiety. Another study revealed that music therapy lowered levels of depression and anxiety.

8. Musical training strengthens the brain's executive function. Executive function covers critical tasks like processing and retaining information, controlling behavior, making decisions, and problem solving. If strengthened, you can boost your ability to live. Musical training can improve and strengthen executive functioning in both children and adults.

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