



(Jupiterimages /Getty Images/Pixland)

The earlier kids start learning music, the better for the brain

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Early enrolment could be the key to your child getting the most out of music lessons.

A new study shows that individuals who start learning to play musical instruments before the age of seven have stronger connections in certain parts of the brain, suggesting there is a developmental window when children are most susceptible to picking up specific skills.

“What we found was that people who start their music lessons earlier in life have better performance on certain kinds of tasks and also have differences in the connections between the motor regions of their brain,” says psychology professor Virginia Penhune of Concordia University, who co-authored the study.

“Overall, earlier is better,” she says, noting that individuals who begin their musical training at the age of four will likely perform better than those who start at the age of six. But the window for creating a lasting impact on motor abilities and brain structure appears to close by about age nine.

The study examined 36 trained musicians, half of whom began studying music before age seven and the other half after seven. All had at least seven years of musical experience. The participants were asked to perform a task that required tapping out a rhythm to assess their motor timing and synchronization. Researchers also collected magnetic resonance imaging (MRI) scans of their brains.

The researchers found that musicians who started training before the age of seven had better synchronization and more accurate timing, and they had greater connectivity in specific areas of the corpus callosum, which allows the left and right hemispheres of the brain to communicate. Meanwhile, the brain images of musicians who began training after the age of seven were found to be no different to those of non-musicians, who had little to no training at all.

Penhune suggests these results may apply more generally to other types of training, such as learning a new language or picking up a new sport.

“It’s really telling us something about how the brain responds to experience,” she says. “Our idea here is that if you start when you’re younger, it facilitates [learning]. And maybe it’s also the case that if you learn it when you’re younger, then you can build on that.”

But Penhune warns that enrolling your children in music classes at a young age will not necessarily increase their chances of becoming great musicians.

“It’s changing your brain and it’s changing your behaviour,” she says, but there are many other factors at play.