

10 reasons why making music is good for your brain

It doesn't matter if you've always played or are just starting, playing music makes your brain better. Among its many benefits, music can sharpen concentration, improve hand-eye coordination and increase empathy.

Turns out Mom and Dad were right. Those [piano lessons](#) you despised and those endless hours in school band practice truly were good for you. From making you smarter, to diminishing the effects of brain aging, to improving emotional stability, it seems that playing an instrument has a hand in reconfiguring your brain and [enhancing it](#). Permanently. And let's be clear: [just listening](#) to music doesn't cut it. It's the active work of bringing sounds to life that delivers the biggest benefit.

Researchers are still discovering all the ways that making music enriches your brain, but the impact is undeniable. So dust off that old guitar from college. Unpack your grade-school clarinet. Join a neighborhood jam or kick back at home, just you and your favorite instrument. And by all means encourage your kids to play, too. [The younger they start, the better](#). Here are 10 reasons why you'll be glad you did.

1. Enriches connections between the left and right brain

Studies show that music makers have more white matter in their corpus callosum, the bundle of neural wires [connecting the brain's two hemispheres](#). This means greater communication between the brain's creative right side and its analytic left side, which in turn may translate into numerous cerebral benefits, including faster communication within the brain and greater creative problem-solving abilities. However, not all instrumentalists reap these cognitive advantages equally. Both age and amount of play time matter. Research shows that kids who [practice more](#) seem to build a greater bridge between the two sides of the brain. Plus, those who start earlier— around [age 7](#) is ideal — benefit more than later starters.

2. Boosts executive brain function

More white matter may be why people with musical training are also better at making decisions, processing and retaining information, and adjusting course based on changing mental demands. That's good news for musicians because these [executive brain functions](#) likely contribute more to academic success than IQ. Some researchers even speculate that playing an instrument could prove beneficial in helping kids with neurological problems that involve executive functioning, including ADHD (attention deficit hyperactivity disorder).

3. Strengthens speech processing

It's no surprise that making music helps your brain process musical sounds. But tickling the ivories or strumming guitar strings also aids in processing consonant and vowel sounds in speech. In new [study](#) from Northwestern University, researchers measured brain performance in low-income kids who attended Harmony Project, an after-school music program in Los Angeles.

Kids who had [two years of music instruction](#) were able to process many more speech sounds — and with greater precision — than those who only had one year of instruction. Researchers speculate that music and speech share common characteristics — pitch, timing and timbre — and that the brain relies on the same neural pathways to process both. Sharper language skills, including reading, may in turn help kids learn better in all subjects, from math to social studies. A case in point is Harmony Project itself: More than 90 percent of its graduates have gone on to [college](#) since 2008, while the drop-out rate in the neighborhoods the children come from is 50 percent or higher.

4. Magnifies memory

Related to speech processing, those with musical training are also [better at remembering](#) spoken words (verbal memory). A [study](#) from Germany recently found that second-graders who spent 45 minutes a week learning a musical instrument recalled more words recited to them than kids who received no musical training or those who spent the same amount of time in science class. Music-making also seems to boost [working memory](#) — the ability to temporarily store and use information that helps you reason, learn or complete a complex task.

5. Promotes empathy

Musical training doesn't just upgrade your brain's sound-processing centers; it also lifts its capacity to detect [emotions in sound](#). That is, musicians may be better at reading subtle emotional cues in conversation. In turn, this could equip them for smoother, more emotionally rich relationships. If true, musical training also bodes well for helping kids with emotional-perception problems, such as autism.

6. Slows brain aging

Brain gains made from playing an instrument apparently don't wane as you age either. Studies show that speech-processing and memory benefits extend well into your golden years — even if your musical training stopped after childhood. A new Canadian [study](#) found that older people who had musical training when they were young could identify speech 20 percent faster than those with no training. In another [study](#), people aged 60 to 83 who'd studied music for at least 10 years remembered more sensory information, including auditory, visual and tactile data, than those who'd studied for one to nine years. Both groups scored higher than people who'd never learned an instrument.

7. Fosters math and science ability

Musical notes, chords, octaves, rhythm, and meter can all be understood mathematically. So playing music should raise your math game, right? The research is mixed, but there seems to be an underlying correlation between music-making and better math skills. For instance, a recent [study](#) found that preschoolers who got keyboard lessons performed better on a test of [spatial-temporal reasoning](#) (the ability to mentally envision spatial patterns and understand how they fit together) than kids who got computer instruction or those who didn't participate in either activity. Researchers believe that elevated spatial-temporal reasoning leads to better [math](#) and science performance.

8. Improves motor skills

No doubt about it, playing an instrument requires stellar hand-eye-ear coordination (getting hands and fingers to translate musical notes on a page into sound). And for music-makers who start young enough, those heightened musical motor skills seem to translate into other areas of life as well. [Researchers in Canada](#) found that adult musicians who started playing before age 7 had better timing on a non-music motor-skill task than those who started music lessons later. What's more, their superior motor abilities actually showed up in their brains. Scans revealed stronger neural connections in motor regions that help with imagining and carrying out physical movements.

9. Elevates mental health

Studies show that fiddlers, saxophonists, keyboardists and other instrumentalists are [more focused and less prone to aggression](#), depression and anger than non-musicians. In fact, creating music seems to prime their brains for heightened emotional control and concentration. In one study, [researchers examined brain scans](#) of kids aged 6 to 18. Those who played an instrument had a thicker brain cortex in regions that regulate emotions, anxiety levels, and the capacity to pay attention (meaning they had superior abilities in these areas). Other studies show that making music also [relieves stress](#). In other words, musicians may suffer from fewer stress-related [psychological and physical symptoms](#), including burnout, headaches, high blood pressure and lower immune function.

10. Sharpens self-esteem

Not surprisingly, mental-health gains from musical mastery (and maybe the camaraderie of playing with others) transfers into greater [feelings of self-worth](#). In one [study](#) kids who received three years of weekly piano lessons scored higher on a measure of self-esteem than kids who got no musical instruction. And another [study](#) found that at-risk kids who participated in a music-performance group at school felt less alienated and more successful.

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