



Music Lessons—Reaping the Benefits

By SEAN HUTCHINS, Director of Research

One of the big lessons that we've learned from the study of music and the brain is that musicians aren't just people who play music—musicians' brains structure their entire world in a different way. Musicians have better perceptual skills (for example, picking up the details in sounds), which lets them hear music differently, as well as other acoustic signals (such as speech). It's not just sounds, either. There is also evidence that a lifetime of musical experience can positively affect other mental skills, leading to better ability to pay attention and better cognitive flexibility.

The really crucial aspect of all this research, however, is that the mental benefits of musical training are not just limited to those people who would put "Musician" on their business card. Anyone who has put in the effort to hone their musical skills seems to reap the benefits of this training. (As an aside, this may be one of the reasons that we tend to see so many musically talented people in successful positions in life, like the lawyer who just happens to play the piano, or the doctor who sometimes moonlights in a jazz ensemble).

THE BENEFITS OF BEGINNING EARLY

At the age of three, children are often developing important cognitive skills in attention, self-control, and working

memory. What's more, there is good evidence that early childhood can be the most valuable time to start a music education. The earlier a child begins their music education, the more likely they are to have better motor skills as an adult. They are also more likely to develop perfect pitch. In addition, the length of musical training can predict perceptual abilities, including how faithfully the brain can represent the sounds it hears. Music training in childhood can even help protect against hearing deficits later in life—even if you don't touch an instrument for thirty years in the middle. The benefits of music education can show up quite early as well, with perceptual benefits shown in preschoolers and school-age children. Again, these perceptual benefits aren't just limited to music—they can help with speech discrimination and the ability to focus attention—a vital skill for children in a noisy classroom setting.

FIND A BALANCE

However, one of the hardest parts about being a parent is finding the right balance between what your child wants to do and what your child should do. In the Tradewell-Hutchins household, there used to be a mini-standoff about brushing teeth every night—"Do I have to do it?" "For how long?" "Can I just leave the toothbrush in my mouth and not move it?" As parents, we drew a line in the

sand, though, because it was important to us and to them, not so much because we cared about brushing baby teeth with fluoride-free toothpaste, but mostly because we cared about establishing a routine around brushing. Nowadays, we still get some pushback, but at least there's the expectation that it's part of the bedtime routine. It becomes easier and easier every day. With music, too, there are similar kinds of struggles, and I can't help but think back to when I was a child, with my mother cajoling, nagging, or downright forcing me to practice the piano. And though I resented it at the time, it proved to be useful, both for my career and social life (having met my wife through the beauty of light opera). Ultimately, it's the conjunction of these two aspects of music—the work and the fun—that make it such a powerful tool. Music does have a strong social aspect to it, and many scientists believe that the root cause of the beneficial effects of music are related to the fact the music is cognitively demanding, but also rewarding. Music is both the medicine and the spoonful of sugar. As a parent trying to get a child to practice, we yearn for the former, but we can't lose sight of the latter.

MAKE PRACTICE FUN

As part of my job, I work with several very excellent early childhood music educators on The Royal Conservatory

Smart Start™ team who, on a daily basis, consider the best ways to not only present top-quality music education, but also to make it fun and enjoyable. One of my favourite ways to do this at home is to be involved in my son's music practice—not just as an overseer, but as a participant. Sometimes this involves duets, but it can also involve singing along, or even just being an open and appreciative audience member. In fact, a recent study has shown that parental involvement can be a very powerful factor for aiding musical memory in infants. I know the time constraints can be challenging, and I'm not always able to be as involved as I'd like

to be, but I find that fostering that sense of musical collaboration is a nice way to draw on some of the inherent benefits of music. This doesn't mean that music still isn't preferable to Pokémon cards for my son, but I'm hoping that by his teenage years, we can reverse those preferences.

As both a scientist and a parent, I recognize the long-term benefits of music practice, but I also recognize the short-term struggles it can present.

It is wonderful to see this scientific research reaching the public zeitgeist, but sometimes this can come at the expense of the recognition of the work that music lessons can entail, not just for the child,

but also the parent. And don't worry—if you keep a healthy attitude, the fun will come. After all, it's music! 

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