Today’s piece was prepared by Wei-Jen Hsieh, MD, based on a story from the website for the University of Vermont, Could Playing Tchaikovsky’s “Nutcracker” and Other Music Improve Kids’ Brains?

<http://www.uvm.edu/medicine/?Page=news&storyID=19874&category=comresne>

Music can affect mood, memory, and motivation. This study (<http://dx.doi.org/10.1016/j.jaac.2014.06.015>) conducted by a professor of psychiatry in Vermont who looks at MRI brain imaging of children actively learning to play a musical instrument and suggests that playing music alters motor areas of the brain via control and coordination of movement and is correlated with increased cortical thickness that relates to executive functioning, working memory, attention control, as well as areas that play a critical role in inhibitory control and emotion processing. The article concludes that having a musical background can “help a child battle psychological disorder even better than a bottle of pills”.

These generalizations are very misleading. Results reported in the scientific journal indicate no association between cortical thickness and years playing a musical instrument, but that playing a musical instrument was associated with more rapid cortical thickness maturation within areas implicated in motor planning and coordination, visual-spatial ability, and emotion and impulse regulation. The primary outcome variable of the study was to assess the extent to which playing a musical instrument is associated with cortical thickness development among healthy youths. Given the methods used in its design, it is difficult to tease out confounding variables.

While there is not doubt that learning to play a musical instrument like the piano or the violin helps to develop fine motor as well visual-spatial abilities, the link towards emotional and anxiety regulation is speculative at best.

**MUSIC AND BRAIN RESOURCES:**

* Zero to Three: [www.zerotothree.org/child-development](http://www.zerotothree.org/child-development)
* American Music Therapy Association: [www.musictherapy.org](http://www.musictherapy.org)

And that’s today’s Developmental & Behavioral Pediatrics: IN THE NEWS!