



# How Does Music Affect Children's Brain and Cognitive Development?

The National Science Foundation has granted funds for the first longitudinal study of the effects of instrumental music training on children's brain growth and cognitive development.




Research has uncovered different kinds of structures when comparing the brains of professional musicians with those of non-musicians. Are those differences inborn? Or are they the result of musical training? This is the question our study addresses. Research has also shown that music training enhances spatial reasoning. Our study also examines the effect of music on children's spatial abilities, and tests whether spatial development is related to brain growth. We expect to find evidence that the serious study of music benefits children in many ways — not only in their musical development but also in other areas of cognition as well.

## Who can participate?

We are looking for **kindergarten and first grade students** in the Greater Boston area who are **just beginning to study piano or a stringed instrument**. Families need to make a three-year commitment to participation in this project.

## What's involved?

Families of children participating in this study agree to:

-  Semi-annual cognitive, behavioral and music testing
-  Annual or semi-annual, non-invasive MRI scans at Boston's Beth Israel Deaconess Medical Center, and
-  Keep a weekly record of their child's instrumental practice and extra-curricular activities (record-keeping supplies will be provided).

## What are the benefits?

You will:

- see firsthand how music training benefits your child's development,
- help gather scientific evidence to support music in our schools,
- receive a small stipend for your child,
- receive pictures of your child's developing brain, and
- actively participate in your child's first musical experience.

## How do we get started?

If you are interested in participating or have questions regarding this study, simply call us at **617-632-8926**, e-mail us at [musicstudy@hotmail.com](mailto:musicstudy@hotmail.com), or fill out and return one of our postage paid reply cards.

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