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THE EFFECT OF MUSIC ON THE HUMAN BODY AND MIND

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Music is one of the few activities that involves using the whole brain. It has benefits not only for learning language, improving memory and focusing attention, but also for physical coordination and development. Music helped Thomas Jefferson write the Declaration of Independence. Einstein himself says that the reason he was so smart is because he played the violin. A friend of Einstein, G.J. Withrow, said that the way Einstein figured out his problems and equations was by improvising on the violin.

From the perspective of neuroscience, listening to music is one of the most complex things you can do. Many parts of your brain have to work together to comprehend even the simplest tune. There isn't a single music center of the brain, in large part because listening to even very simple music combines a bunch of distinct neurological processes. The auditory cortex is an important part of processing the sound of music. Part of the temporal lobe, the auditory cortex takes in information from the ear and assesses the pitch and volume of the sound.

Tonality - the building of musical structure around a central chord - is another crucial part of musical understanding, and it reels in still more parts of the brain. The prefrontal cortex, cerebellum, and many parts of the temporal lobe all go into our ability to recognize the tone of a given piece of music. Taken all together, this means that music already brings in three out of four of the lobes of the human brain - frontal, parietal, and temporal, with only the visual processing occipital lobe unaffected...and there might be a bit more to say about that in a moment.

Playing a musical instrument has an effect on the brain. It involves multiple components of the central (brain and spinal cord) and peripheral (nerves outside the brain and spinal cord) nervous systems. The findings suggest that practicing the piano is an effective way to enhance the structure of white matter.

Not all types of music have favourable effects. Music can be distracting if it's too loud or too jarring, or if it competes for our attention with what we're trying to do. But for the most part, exposure to classic music has beneficial effects.