## Music and its effect on the human body

**Health & Medicine** 



Musicstimulates brain growth and productive function. It is instinct to make and enjoy music in homo sapiens, it does not get wiped from memory by diseases like Parkinson's orDementia, it was been known to help children with ADHD and ADD pay attention, Charles Darwin and other specialists support the idea that it was used to help us evolve and bond throughout our existence. Music is a way for people to transmit emotions, feelings, ideas, andmotivationbetter than words can do; almost as if it is our innate language.

With all these examples, it is impossible to deny the power of music and its positive influence on our mental processes. It is engraved in our biology to be moved by music, powered by its emotional force, and to stimulate our brains in ways that enforce knowledge and facilitate natural mental processes. "In 2008 archaeologists in Germany discovered the remains of a 35, 000-year-old flute." (Zimmer 1); that discovery is undeniable evidence that music existed long before organized civilization. Music is a part of our genealogy, we have used it as a tool to transmit thoughts before modern language was even thought about.

Charles Darwin theorized that humans started using music as a way to attract mates, as a peacock shows off its feathers. Other specialists such as Dean Falk of the School for Advanced Research in Santa Fe, New Mexico, and Ellen Dissanayake of the University of Washington at Seattle believe that music was used to soothe babies as well. The proper term for this biological process is called, motheresing. Just as mothers today, in all cultures, sing lullabies to soothe their young, primordial humans did the same. The way

females motherese are similar in all cultures: a quietly sung song with higher than normal speech, pitch, and slow tempo.

These professionals speculate that once the essential elements were laid out and understood, adults began to make music for their own enjoyment as well. Robin Dunbar, a psychologist from the University of Oxford holds a third opinion, that music evolved as a way to bond together large groups. Just like primates bond with each other during grooming, primal humans did the same. Eventually, our groups became too large for grooming to remain effective; music offered a practical solution. Large groups could sing together, soothe each other, bond, and vent extra emotions all in one procedure. This practice resembles a modern day concert.

It is very reasonable to believe that all of these hypotheses are true because they all exist in evolved forms today. Biologically, music has scientifically proven effects as well. Research suggests that music releases endorphins that work as natural pain-killers. Carl Zimmer states: Dunbar and his colleagues studied people who played music or danced together in church groups, samba classes, drumming circles, and the like. After the performances, the scientists made an indirect measure of the endorphin levels in the performers' bodies, putting blood pressure cuffs on people's arms and inflating them until the subjects complained of pain. Since endorphins kill pain, a higher pain threshold indicates elevated levels of the compounds.) The researchers then repeated the procedure with employees of a musical instrument store who listened passively to constant background music. People who actively moved their bodies to music—dancers, drummers, and so on—had elevated pain thresholds, but no such effect

showed up among those who merely listened. (1) This could be another reason that music came into existence, to provide medical help before the days of modern medicine.

Today, music therapy is used to help patients with Dementia, Alzheimer's, Parkinson's, attention deficit disorders, etc.; it is used to improve communication, academicabilities, attention p, motor skills, and management of both pain and behavior just to name a few others (Turner 2261-2271). "The Center for InnerChange in the Denver suburb of Greenwood Village, promotes the idea that 'listening therapy,' or several sessions of listening to music rich in high and low frequencies, can stimulate the brain enough to eliminate ADHD symptoms" (Samuels 37).

The Music for Life project uses the power of music to soothe and repair Dementia sufferers every day. By playing soothing music the patient relaxes, smiles, and in some cases communicates! (Bredin 48). This medication, music, is free of side effects and extremely cost effective. One MP3 player costs less than any prescription of typical medication. Psychically, music therapy has numerous beneficial effects! Judith Turner states in the Gale Encyclopedia on Medicine: Brain function physically changes in response to music.

The rhythm can guide the body into breathing in slower, deeper patterns that have a calming effect. Heart rate and blood pressure are also responsive to the types of music that are listened to. The speed of the heartbeat tends to speed or slow depending on the volume and speed of the auditory stimulus. Louder and faster noises tend to raise both heart rate and blood pressure; slower, softer, and more regular tones produce the opposite

result. Music can also relieve muscle tension and improve motor skills. It is often used to help rebuild physical patterning skills in rehabilitation clinics.

Levels of endorphins, natural pain relievers, are increased while listening to music, and levels ofstresshormones are decreased. This latter effect may partially explain the ability of music to improve immune function. A 1993 study at Michigan State University showed that even 15 minutes of exposure to music could increase interleukin-1 levels, a consequence which also heightens immunity. (2261-2271). Without doubt, one can say that music has important physical effects on the body and should be used as a natural supplement for both the healthy and the ill.

To reduceanxiety, relax heart rate, and relieve pain through release of endorphins music is a superior choice (in comparison to drugs) to assist in medical endeavors. Mentally, music has numerous benefits as well. It heals the brain through enabling exercise of damaged lobes of the brain and releasing crucial. Autistic patients have shown particularly significant progress when aided with music therapy. Therapy with music is proven to aid in autistic patients communication, relationships with others, and improve their learning skills.

Cases with substance abuse, schizophrenia, paranoia, and personality disorders are aided with skills of social interaction, reality orientation, coping skills, stress reduction, and expression of feelings. (Turner 2261-2271). Although the effects of music therapy are countless, the simplicity of therapy is uncanny. Therapists analyze their patients' conditions then choose a variety of techniques to provide the desired effects, then use musical endeavors such as singing, listening to instrumental music,

composition, dancing and guided imagery to help the patient cope with their affliction.

Learning to play a musical instrument helps develop motor skills in individuals with developmental delays, brain injuries, or any other motor impairment while also exercising impulse control and group cooperation. Creative movement improves coordination, strengths, and even balance. Improvisation can help anyone learn to express emotion through nonverbal means as well as encouraging socialization and communication of feelings. Singing can develop vocal articulation, rhythm, and breathe control. For troke victims, remembering lyrics and/or melodies is an invaluable technique in healing their amygdala (the part of the brain that deals with memory and perception of auditory stimuli); a healthy amygdala also provides clearer speech and more effective communication. Getting out feelings is easily facilitated with music. Composing lyrics and music assist in persisting through fears and negative feelings. Listening to music can also make people aware ofmemoriesor emotions that need to be acknowledged. Singing is also a similar method. Guided Imagery and Music (A.

K. A. GIM) is a widely recognized technique developed by music therapist Helen Bonny. This technique utilizes music to invoke emotions, pictures, and symbols from the patient as a bridge to the exploration and expression of (often subliminal) feelings. (2261-2271). Further, Turner explains more of the possibilities of musical therapy in the Gale Encyclopedia of Medicine: Patients with brain damage from stroke, traumatic brain injury, or other neurologic conditions have been shown to exhibit significant improvement as a result of music therapy.

This is theorized to be partially the result of entrainment, which is the synchronization of movement with the rhythm of the music. Consistent practice leads to gains in motor skill ability and efficiency. Cognitive processes and language skills often benefit from appropriate musical intervention. Pain, anxiety, anddepressionare major concerns with patients who are terminally ill, whether they are in hospice or not. Music can provide some relief from pain, through release of endorphins and promotion of relaxation.

It can also provide an opportunity for the patient to reminisce and talk about the fears that are associated with death and dying. Music may help regulate the rapid breathing of a patient who is anxious, and soothe the mind. The Chalice of Repose project, headquartered at St. Patrick Hospital in Missoula, Montana, is one organization that attends and nurtures dying patients through the use of music, in a practice they called music-thanatology by developer Therese Schroeder-Sheker. Practitioners in this program work to relieve suffering through music prescribed for the individual patient. (2261-2271).

Without a doubt, music affects the brain in some very dynamic ways. It has roots thousands of years old, evidence as being an important factor in human evolution, and substantial effects on people today. Rhythm and melody can heal the sick, provide aid in medical treatment, increase brain functioning in both the ill and the healthy, and influence mood to a significant degree. In conclusion, no matter what music someone is in to, it has a noteworthy effect on our body and brain. Works Cited Begley, Sharon.

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