

Therapeutic Value of Music

(Miller et al 2008, Lee et al 2004, Fried 1990, and all those sourced below)

Biochemical & Cardiovascular

- Subjects who listened to music had lower blood pressure, reported anxiety and stress, and release of heart protective hormones like endorphins.
- Vasodilation with subject's preferred music
- Overall, heavy metal music caused global increased anxiety
- Music has ramifications for improving heart health since constricted vessels lead to high blood pressure and increase heart attack risk
- Music also decreased stress response, which also contributes to heart disease and other chronic diseases.

Human vitality is based solely on the function of listening.

Tomatis 1980

Physiological

- Facilitate healing.
- Reduction of physiological parameters and anxiety, including reduction of post-surgical stress and pain.
- Psycho-emotional benefits such as decreased depression in home bound elderly
- Enhance hand-eye coordination in developmentally delayed children.
- Improved sleep.
- Music has a positive and negative effect on plants and the human body. Rock music makes the muscles of the body contract. The normal pressure required to control a deltoid muscle contraction in a male is 40-45 pounds. When rock music is played only 10-15 pounds of pressure is needed. (Diamond)
- Muscles are linked to organ function, which means music affects organ function.

Cognitive & Neurobiological Function

- Melodic music therapy changes brain activation and promotes language recovery after brain damage.
- Mathematical reasoning enhanced by musical training.
- Music has an effect on hemispheric dominance, changes in autonomic nervous system activity, and relaxation by paradoxical arousal patterns contrary to those in cognitive function and anxiety. Hypothetical subcortical reflexes are postulated as mediators.
- Music positively affects breathing.
- EEG/Brainwave patterns of relaxation of muscle tension and calm attentiveness were correlated with Baroque and classical compositions. In addition, similar findings for plant well being were correlated with human beings. (Tomatis, Retallack)

- Reduction of total seizure activity in epileptic patients by 65%, even those who were comatose. Music used was Mozart's Sonata for Two Pianos, K. 448. (Hughes 1998; MuSICA Research Notes, 1998)
- Self-selected music used by laboring women reduced their reported stress and pain levels. (Browning 2000)
- Perinatal physicians, nurses, and caregivers became more relaxed, slowed their activities, and demonstrated increased respect for laboring mothers when music is used during labor. (DiFranco 2000)
- Music in combination with progressive relaxation is more effective in inducing relaxation in laboring mothers. (Wiand 1997)

Traditional Chinese Medicine on Music Therapy

TCM theory of sound qualities and their effects

The effects of musical sounds and instruments are discussed briefly in ancient Chinese texts, much of it based on Five Element Theory. Other branches of TCM, such as herbology, are more discriminating and complex, however, with music therapy, the application provided in this text is an adequate to start in the study of TCM. The chart in Table 30, in the Choosing Music Section, lists each of the five traditional elements followed by the emotions, organs, sounds, and musical instruments corresponding to each element.

Table 30. Five Element Theory of Traditional Chinese Medicine for Music Therapy

- Fire: joy/mania, Heart/Small Intestine, laughter, stringed instruments (violin, viola, cello, etc.).
- Earth: worry/melancholy, Spleen/Stomach, song, human voice.
- Metal (Air): grief/sadness, Lungs/Large Intestine, weeping, brass instruments (trumpet, French horn).
- Water: fear/terror, Kidneys/Urinary bladder, groaning, percussion and percussively activated instruments (drums, piano).
- Wood: anger/irritability, Liver/Gallbladder, shouting, woodwinds (clarinet, oboe, flute).

Ayurveda and Music Therapy

Ayurvedic Principles – Chakra and Music therapy

- Higher frequencies affect the crown and third eye chakras (i.e. violin)
- Lower frequencies affect the root and pelvic chakras (i.e. percussion)
- Intermediate frequencies affect the chest, solar plexus, and throat chakras (human voice)

Other tendencies and considerations for music's effects

- **Tempo** – pulse/heart rate

- **Key signature: major/minor** – soaring vs. calming; energetic vs. sedating; grief vs. joy
- **Rhythm** – syncopation vs. free flowing or a tempo
- **Musical content** – lyrical vs. instrumental; instrumentation
- **Volume** – muscular contraction, action, reaction, nerve sensitivity

Exploring the Frontiers of Mind-Body Medicine... “finer subatomic particles would seem to be waves of form, vibrations called “superstrings”, or supra-sensitive chords, because they react in exactly the same way as the strings of a violin.” -Deepak Chopra, Quantum Healing