

## **Health Benefits of Playing Music**

Following are just some of the latest scientific findings that support the health benefits of playing music to treat conditions such as:

- **Stress**
- **Autism**
- **Parkinson's Disease and Stroke**
- **Cancer**
- **Chronic Pain**
- **Alzheimer's Disease and brain injuries**
- **Anger management**
- **Depression/Job burnout**

### **Playing Music = Less Stress**

Music therapy was recently found to reduce psychological stress in a study of 236 pregnant women (College of Nursing at Kaohsiung Medical University in Taiwan)

Playing music reduces stress and has been shown to reverse the body's response to stress at the DNA level (Dr. Barry Bittman).

Playing music "significantly" lowered the heart rates and calmed and regulated the blood pressures and respiration rates of patients who had undergone surgery (Bryan Memorial Hospital in Lincoln, Neb., and St. Mary's Hospital in Mequon, Wis.)

Blood samples from participants of an hour-long drumming session revealed a reversal of the hormonal stress response and an increase in natural killer cell activity (Bittman, Berk, Felten, Westengard, Simonton, Pappas, Ninehouser, 2001, *Alternative Therapies*, vol. 7, no. 1).

Playing music fortifies the immune system - recreational music-making modulates immunological responses and mood states in older adults (Koyama M, Wachi M, Utsuyama M, Bittman B, Hirokawa K, Kitagawa M. (2009).. *Journal of Medical and Dental Sciences*, 56(2): 57-70.

### **Autism**

The non-verbal and non-threatening nature of music makes it useful in reaching autistic children. This is especially true of many autistic children that seem to have a special fascination, and at times an unusual sensitivity to music. Pairing music with speech can help increase word usage and more natural inflections in autistic children. Pairing music with games and movement can help to increase socialization and decrease the isolation of autistic individuals.

Catherine Lord, a professor of psychology at the University of Michigan specializing in autism research, says, "We know that music therapy treatment is associated with improvement, but we don't know what the cause of that improvement is."

Vanya Green, a board-certified music therapist at Mattel Children's Hospital Child Life/Child Development Services who specializes in facilitating creative expression and anxiety reduction/increased relaxation through music therapy, explained that music can express both an idea and emotion simultaneously.

"I think whereas words are oftentimes symbols of something that you want to express, especially if you want to express a certain emotion, music is sort of a direct expression of that, and I think people feel that when they hear music," Green said.

In an innovative study led by Istvan Molnar-Szakacs, a researcher at the UCLA Tennenbaum Center for the Biology of Creativity, music will be used as a tool to explore the ability of children with ASD to identify emotions in musical excerpts and facial expressions.

"Music has long been known to touch autistic children," Molnar-Szakacs said. "Studies from the early days of autism research have already shown us that music provokes engagement and interest in kids with ASD. More recently, such things as musical memory and pitch abilities in children with ASD have been found to be as good as or better than in typically developing children."

### **Parkinson's Disease and Stroke**

Rhythmic cues can help retrain the brain after a stroke or other neurological impairment, according to Michael Thaut, director of Colorado State University's Center of Biomedical Research in Music. Researchers have also discovered that hearing slow, steady rhythms, such as drumbeats, helps Parkinson patients move more steadily (Friedman, *Healing Power of the Drum*, 1994).

### **Cancer**

Subjects who participated in a clinical trial using the HealthRhythms protocol showed an increase in natural killer cell activity and an enhanced immune system. While this does not indicate a cure for cancer, such results may be of benefit for those facing this disease. (Bittman, Berk, Felten, Westengard, Simonton, Pappas, Ninehouser, 2001, *Alternative Therapies*, vol. 7, no. 1).

Playing music increases human growth hormone (HGH) production among active older Americans. The findings revealed that the test group who took group keyboard lessons showed significantly higher levels of HGH than the control group of people who did not make music (University of Miami)

### **Chronic Pain**

Chronic pain has a devastating propensity for progressively draining quality of life. Technology and pharmacology are falling short of the mark needed to improve quality of life and reduce pain, according to Dr. Barry Bittman in the "Pain Practitioner." (Lingerman, H. 1995, "Music and You". "In the Healing Energies of Music". Wheaton, Ill.: Theosophical Publishing House).

### **Alzheimer's Disease and Brain Injuries**

According to Clair, Bernstein and Johnson (1995), Alzheimer's patients who drum can connect better with loved ones. The predictability of rhythm may provide the framework for repetitive responses that make few cognitive demands on people with dementia.

### **Anger Management**

Music therapy can help people identify the emotions that underlie anger and increase the patient's awareness of these feelings and situations that can trigger them. If a situation or emotion is presented in a song the healthy options for expressing that feeling can be discussed and conflict resolution and problem solving can be practiced in a positive manner. Drumming is also used by music therapists to help patients appropriately vent anger and other emotions. Another use of drumming can be a non-verbal conversation on drums where the ability to listen to the other person's drumming is needed to "converse" on the drums.

Playing a musical instrument can reverse stress at the molecular level, according to studies conducted by Loma Linda University School of Medicine and Applied Biosystems (as published in Medical Science Monitor)

### **Depression and Job Burnout**

Stanford University School of Medicine conducted a study with 30 depressed people over 80 years of age and found that participants in a weekly music therapy group were less anxious, less distressed and had higher self-esteem (Friedman, Healing Power of the Drum, 1994).

Making music can help reduce job burnout and improve your mood, according to a study exposing 112 long-term care workers to six recreational music-making sessions of group drumming and keyboard accompaniment. (As published in "Advances in Mind-Body Medicine")

Engaging in playing music reduces depression. Recent research with long-term care workers showed reduced depression (21.8 percent) six weeks after the completion of a music making program consisting of one hour per week. (Source: A 2003 study conducted by Trip Umbach Healthcare Consulting, Inc.)