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Healing Sounds - Healing Music

The first moment of consciousness in a human being is that of hearing sound. In the womb, a fetus first hears its mother's heartbeat, the internal sounds of her body, and eventually her voice. Long before it is born, it will respond to the noise of its mother's world; the cells throughout its tiny body reacting to sound in utero. Sounds that are soothing to the mother are calming to the unborn child, while sounds that are upsetting to the mother disturb the child, causing increased heart rate, jerking movements, and other signs of distress, notes Deepak Chopra M.D. (1.)

Dr. Alfred Tomatis, Ear, Nose and Throat surgeon and pioneer in Applied Psychology (2.), has conducted many research studies about hearing. "For each of us, the first sounds we ever knew were the sounds of our mother's heartbeat (approx. 50-60 beats/minute); the soft whooshing sound of our mother's breath in and out, much like the sound of distant surf coming in and going out (approx. 12-15 cycles/minute); the tone of our mother's voice, muted and high pitched resembling the sound of a dolphin. These were the first sounds that connected us to our bodies and the world around us."

Music affects us physically, psychologically, emotionally and spiritually. Our responses to music are far more complex, subtle and far-reaching than can be proven scientifically; however, science has measured observable physical effects, such as changes in blood flow through the fingertips or the speed of muscle reactions to sound. New areas of understanding in the field of blood chemistry show the connection between the body's release of endorphins and neuro-peptides and changes in emotion.

Music Therapy is an established healthcare profession that uses music to address physical, emotional, cognitive, and social needs of individuals of all ages. Music therapy improves the quality of life for persons who are well and meets the needs of those with disabilities or illnesses. Music therapy interventions can be designed to:

- ◆ promote wellness
- ◆ manage stress
- ◆ alleviate pain
- ◆ express feelings
- ◆ enhance memory
- ◆ improve communication
- ◆ promote physical rehabilitation.

Research in music therapy supports its effectiveness in a wide variety of healthcare and educational settings. (3.)

Healing sounds focus on the ability of harmonics to create vibrational changes, according to Amrita Cottrell, Founder and Director of the Healing Music Organization (4.). These changes may occur in the physical body, or in the mind, emotional and etheric bodies. When these changes occur, they initiate transformation and healing.

From the dawn of civilization music was used to heal. In ancient Greece, Apollo was both the god of music and medicine. In ancient Egypt, the professions of priesthood, musicians and physicians were combined. From the Bible we learn how Saul was healed by the harp of David.

Today, allopathic medical hospitals all over the United States are test-researching the use of sound within the hospital environment. Music is being used to minimize pain, reduce complications of surgical procedures for patients, and to promote relaxation and the subsequent lowered blood pressure, heart, and respiratory rate of *both doctors and patients*.

Don Campbell, in his book *The Mozart Effect* (5), notes that places like the University of Massachusetts Medical Center in Worcester are using harp music in lieu of tranquilizers and

painkillers for cancer and other seriously ill patients. He also notes that Dr. Paul Robertson, visiting professor at Kingston University in Ontario, Canada, cites studies where patients exposed to fifteen minutes of soothing music require only one half of the recommended doses of anesthetic drugs and sedatives for painful operations. Even President Clinton, in 1997, chose to forego general anesthesia in place of country-western music during his extensive tendon operation.

Sound, in the form of chant, tone, music, and nature sounds is being re-discovered in the healthcare arena for the enhancement of health, vitality, hospice/palliative care, numerous psychological and behavioral conditions, and stress reduction. Goldman & Gurin's work on psycho-immunology, which they published in 1993 in their book Mind Body Medicine (6), revealed that nerve fibers are contained in every organ of the immune system, providing biological communication between the nerve endings and the immune system. They postulate that there is a direct link between a person's thoughts, attitudes, perceptions, and emotions, and the health of the immune system.

Quantum physicist, David Bohm, wrote in Wholeness and the Implicate Order (7), of health as "the essence of non-obstructed, indivisible, flowing movement of the self's internal harmony transcribed into the external world. When the internal and external are at odds with each other--dissonant--the result is disease or a break in harmony."

Our body is a powerful, self-healing instrument with the genetic blueprint for health. Sounds and music vibrate us into a state of resonance with our natural rhythm, a state of harmony and health. When we surrender ourselves to healing sounds, they not only assist us in becoming more receptive to healing, but are also the means by which the healing can happen. Every cell in our body is a sound resonator and lives in a rhythmic pattern. Every organ has its cycle, its pulse, and its musical note. Every system has its cycle and its pattern and its pulse. The various systems in our body respond to sound vibrations as do our mental, emotional, and spiritual states of consciousness.

Studies show that music helps to increase the serotonin and growth hormone levels as well as decrease the ACTH or stress hormones. Music can transport people from a Beta (waking) brain state to Alpha (deep meditative) brain state while remaining awake. Music can affect blood pressure, pulse rate, circulation, brain wave activity, metabolism, and countless other physical and emotional responses. It is also during the theta state when people are the most receptive to healing.

MUSIC THERAPY

According to the American Music Therapy Association, "Music therapy is an established health service similar to occupational therapy and physical therapy. It consists of using music therapeutically to address physical, psychological, cognitive and/or social functioning for patients of all ages. Because music therapy is a powerful and non-invasive medium, unique outcomes are possible. In addition to its applications with hospital patients, music therapy is used successfully with persons of all ages and disabilities."

Music therapy has been shown to be an effective and valid treatment option for medical patients with a variety of diagnoses. Research results and clinical experiences attest to the viability of music therapy even in those patients resistant to other treatment approaches. Music is a form of sensory stimulation, which provokes responses due to the familiarity, predictability, and feelings of security associated with it.

Music therapists use music activities, both instrumental and vocal, designed to facilitate changes that are non-musical in nature. Music therapy programs are based on individual assessment, treatment planning, and ongoing program evaluation. Frequently functioning as members of an interdisciplinary team, music therapists implement programs with groups or individuals addressing a vast continuum of outcomes, including reduction of pain and anxiety, stress management, communication, and emotional expression.

Music therapy utilized in a medical setting complies with the expectations and requirements inherent in the medical model of treatment. Professionally trained music therapists design and utilize individualized music experiences to assess, treat, and evaluate patients. Music therapy patient objectives are specific and relevant to medical diagnosis, course of treatment, and discharge timeline. Benefits are described in medical, and not musical, terms.

Through a planned and systematic use of music and music activities, music therapists provide opportunities for:

- Anxiety and stress reduction

- Non-pharmacological management of pain and discomfort

- Positive changes in mood and emotional states

- Active and positive patient participation in treatment

- Decreased length of stay

In addition, music therapy may allow for:

Emotional intimacy with families and caregivers
Relaxation for the entire family
Meaningful time spent together in a positive, creative way

BRAINWAVES

Music and Sound Transport the Listener from Beta to Theta

Researchers believe that the brain either contains specific circuits or specific chemistries that, when touched by the sound of music, come alive in a way that makes us feel emotion. These changes are measured utilizing a variety of imaging techniques such as MRI's (magnetic resonance imaging) and EEG's (electro-encephalogram) to look inside the brain as it perceives music. The music we listen to will resonate inside our head, and trigger any number of emotional and physical sensations such as peacefulness or excitement, joy or sadness, tenderness or irritation.

MUSIC AND SPECIFIC ILLNESSES

Cancer:

Fabien Maman, French composer, acupuncturist and bio-energeticist (8) explored and documented the influence of sound waves on the cells of the body. He was fascinated with energetic healing techniques, and wondered how we are touched or even changed by music. If so, how deeply does sound travel into our bodies? He began a study joined by Helene Grimal, a biologist and musician, at the French National Center for Scientific Research in Paris. Together they studied the effect of low volume (30-40 decibels) sound on human cells.

Mounting a camera on a microscope with slides of human uterine cancer cells, they played various acoustical instruments (guitar, gong, xylophone and voice) for periods of twenty-minute duration, while they observed the affect on the cells. The most dramatic influence on the cells came from the human voice, when Maman sang a series of scales into the cells. "The structure quickly disorganized. The human voice carries something in its vibration that makes it more powerful than any musical instrument: consciousness. It appeared that the cancer cells were not able to support a progressive accumulation of vibratory frequencies."

Maman continued his study, but this time with two breast cancer patients. Each woman committed to tone for three-and-a-half hours per day over a period of a month. In one case, the tumor vanished completely. The second woman underwent surgery to remove the tumor. Her surgeon reported that the tumor had reduced in size considerably, and had literally dried up. She recovered fully from the surgery and remains healthy. Maman's explanation for this incredible phenomenon was substantiated by the photographs he had taken during his case studies. He says, "the cancer cells show evidence of cell nuclei incapable of maintaining their structure as the sound wave frequencies attack the cytoplasmic and nuclear membranes." The vibration of sound literally transforms the cell structure. As the voice intensifies and time passes with no break in sound, the vibratory rate becomes too powerful, and the cells cannot adapt or stabilize themselves. Therefore, the cell dies because it is not able to accommodate its structure and synchronize with the collection of sound.

According to Mitchell Gaynor, M.D., Medical Oncologist, Director of Medical Oncology and Integrative Medicine at the Strang-Cornell Cancer Prevention Center and New York Hospital, and author of [Sounds of Healing: A Physician Reveals the Therapeutic Power of Sound, Voice and Music](#) (9), "Sound enters the healing equation from several directions: It may alter cellular functions through energetic effects; it may entrain biological systems to function more homeostatically; it may calm the mind and therefore the body; or it may have emotional effects, which influence neurotransmitters and neuropeptides, which in turn help to regulate the immune system--the healer within."

Dr. Walter Quan, Jr., Oncologist-Hematologist of St. Luke's Medical Center in Cleveland, Ohio, attests that: "The mind/body relationship is particularly important in terms of looking at the immune system to treat cancer. We believe that patients who are under less stress, who are in a brighter mood, appear to do better in terms of their anti-cancer therapy. I think that music therapy and imaging and immune therapy of cancer all tie together. I think it can be helpful in conjunction with biologic therapy for cancer. A recent study on cancer patients showed that approximately three quarters of cancer patients that had their usual pain medicines but also had the additional music therapy experienced less pain than previously. Music therapy, in helping patients relax, could possibly be beneficial in raising the innate immune system which could have therapeutic implications for cancer."

Music therapy is quantifiable and qualitative. Dr. Quan continues: "...[I]n general as a physician you only use those things that you can measure or that have a number related to [them]...but there are a number of disciplines, and music therapy is one of them, where there is a qualitative effect which can give a lot of benefit for patients."

Cancer patients specifically started listening to music for emotional and physical healing back in

1985, when a music therapy program was started at University Hospitals of Cleveland in the Ireland Cancer Center.

"Music therapy is one of the newest and most encouraging forms of complementary treatment." said Martha Osborne, nurse educator at Pomona Valley Hospital Medical Center. "We all know how powerful, healing, and overwhelming music can be and we hope to help patients and their families get through the challenge of cancer. Music releases many suppressed emotions cancer patients have and gives them a chance to work through them."

"Having cancer is like being dumped from a helicopter into a jungle and into a maze." she said. "Listening to music and allowing it to take over the body in a sensory way can help provide physical and emotional relief."

Music Therapy is effective in the following areas:

Pain
Depression
Nausea/vomiting
Anger
Fatigue
Worry
Loneliness
Appetite
Stress
Tiredness
Fear

Uses for Chemotherapy and/or Radiation Therapy Patients:

- re-develop cognition skills
- lessen or alleviate nausea/vomiting
- reduce fatigue/infection
- increase appetite
- lessen skin changes (dry, flaky/weepy/blistering)

Music Therapy in support of Immunotherapy:

- reduce flu-like symptoms
- lessen incidents of rash
- reduce blood pressure
- increase ability to breathe easily

Music Therapy in support of Cancer in general

- cognition function
- lighten mood
- improve quality of life
- increase appetite so healthy diet can strengthen immune system

Surgery

Helen Bonny, Ph.D., has been one of the pioneers in Music Therapy. Her use of Guided Imagery and Music has become a mainstay in the therapeutic use of music. Bonny's work began in the 1960's at the Maryland Psychiatric Research Center at Johns Hopkins University in Baltimore. "Music Therapy is essentially non-musical in nature. The goal of music therapy is reduction of psycho-physiologic stress, pain, anxiety or isolation. It assists people to achieve a state of deep relaxation, develop self-awareness and creativity, improve learning, clarify personal values, and cope with a wide variety of psycho-physiologic dysfunctions." Bonny's approach focuses on a one-on-one private psychological practice utilizing classical music to evoke mental imagery and elicit symbols and deep feelings from within the patient's consciousness. The therapist's task is merely to keep the flow of images and expression going throughout the therapy session. This allows the patient to organically access their deeper conscious self and find answers to longstanding questions about themselves.

In the medical setting, Bonny feels music plays an important role in the recovery of the surgical patient. "Hearing is the last sense lost before sleep and the first sense regained upon lightening of anesthesia. Traditionally, the speaking voice and human touch have been used for comfort and reassurance in hospital settings, but personnel cannot always be present to facilitate this support. Music, or the "touch of sound," may be a good substitute."

Bonny was involved in a study at Jefferson General Hospital of twenty-five patients who were undergoing surgery with either regional or general anesthetic. Through her work with patients, she feels that multi-dimensional, non-verbal characteristics of music (which stimulate the right brain functioning) help to cross through linear, verbal communication channels.

BONES

Long believed to be relaxing or stress reducing, a cat's purr has now been shown scientifically to create vibrations or frequencies that cause bone fractures to heal faster and weakened bones to begin to strengthen and rebuild.

Researcher Elizabeth von Muggenthaler of the Fauna Communications Research Institute in North Carolina, a specialist in the field of bioacoustics, found that house cats purr at about 25 and 50 Hz, the optimum frequencies that induce increased bone density.

A National Geographic report in January, 2001 (p.11) reported that chickens placed on a vibrating plate for 20 minutes daily resulted in stronger bone growth. In 1994, the Chinese Journal of Surgery, [32 (4), 217-219] presented in "The Effects of Frequency of Mechanical Vibration on Experimental Fracture Healing" that rabbits exposed to these same frequencies increased bone strength by 20%.

PAIN MANAGEMENT / STRESS REDUCTION

One type of psycho-physiologic response happens when people shift to altered states of consciousness. When an individual uses music for relaxation, their abstract thinking is slowed down as they remain in a normal waking state. As they continue with their process of relaxation, the individual moves through the remainder of the six states of consciousness; expanded sensory threshold, daydreaming, trance, meditative states, and rapture.

In these states of consciousness, time takes on a different meaning for the individual. Often during music therapy sessions, the individual will lose track of time for extended periods, which in turn helps them to reduce feelings of anxiety, fear, and pain.

Scientific studies have shown that music therapy helps to relieve pain and reduce stress and anxiety for the patient, resulting in physiological changes, including:

- Improved respiration
- Lowered blood pressure
- Improved cardiac output
- Reduced heart rate
- Relaxed muscle tension

Music therapy has been shown to have a significant effect on a patient's perceived effectiveness of treatment, pain reduction, relaxation, slowed respiration rate, lessened anxiety levels, and an overall increased sense of well-being.

CYMATICS

Cymatics is the science of how sound waves translate into physical patterns. The implication is that sound is formative. This fascinating science is the foundation of work being studied by Dr. Sir Peter Guy Manners (10.) about the applications and implications of cymatics on healing.

Elizabeth Colorio (11.), doctor of bioenergetic medicine and research director at Cymatherapy International, talks about the relationship of sound/vibratory pattern and the state of wellness within our bodies.

"Human tissue in itself is an energy system. Impedance to energy flow within the tissue can be a predecessor to tissue dysfunction, and dysfunction in the tissues changes their vibratory resonant characteristics.

Certain precisely-specified frequencies, amplitudes, and waveforms are associated with healthy, electrically balanced (homeostatic) functioning of the body as a whole and of its various parts. Certain other frequencies, amplitudes, and waveforms either accompany unhealthy tissue or imbalanced disruptions or serve as early warning signals."

Cymatics research shows a correlation with the auditory environment and wellness. People inundated with strident sounds of an urban environment are more likely to become unbalanced or unhealthy than a person who is surrounded by nature sounds in a rural environment.

Dr. Colorio believes that "the auditory environment that engulfs us during the course of our day impacts the balance of our innate resonant frequencies or vibratory response. Our bodies are able to tune in to healthy or unhealthy vibrations in our environment. Exposure to either good or bad frequencies impacts us physiologically as it does all matter.

"As human beings, we attempt by nature to avoid noxious frequencies or vibrational patterns we consider harmful or 'out of tune' with our own. Think of our instinctual reaction to the sound of a screeching siren, or even to a musical style we do not like. Notice that when the radio station is playing music that we do not like or consider annoying, we instinctually change it and 'tune in' to

one whose musical style we prefer or feel more comfortable with at the moment.

Cymatics confirms what we already feel — that certain auditory environments are harmful to our physiological balance.

According to Dr. Colorio, "the Einsteinian view of vibrational medicine is that human beings are a multidimensional organism composed of physical/cellular systems in dynamic interplay with complex regulatory energy fields. Cymatic therapies, which belong to the field of vibrational medicine, target these energy fields, directing sound energy into the body to correct and restore the balance of the resonance frequencies within.

"There are literally hundreds of 'signature vibrations' of healthy organs and tissues. Each commutation, or harmonious combination, of frequencies is supportive to the specific tissues it is designed to bring into resonant balance. All of these signature vibrations are the inherent resonant frequencies of the tissue to be targeted in its optimal or healthiest state of wellness."

Dr. Manners's study of the frequencies of healthy tissue in Germany was able to detect and record the frequencies of tissue with the help of instrumentation designed to capture and record those frequencies. In the 1950s, Professor Gaveau of the Sorbonne in Paris, Dr. Brunner from Germany, Dr. Harold S. Burr from Yale University, and Swiss scientist Dr. Hans Jenny were each involved in research into these phenomena. Dr. Manners collated the results of their work and concluded that, "every part of the body — the heart, the lungs, the liver, the kidney, the muscles, the bones, the nerves — possesses a harmonic. These harmonics are now tabulated. We know what they are, and they can be played back into the structure and the system."

TESTIMONIALS

FROM www.soundfeelings.com:

"I laughed. I cried. I met demons who chased me, fought with me and who, when I won the fight, became my friends. I danced through a shower of light so healing, it brought me to my knees in gratefulness. And all these things happened to me as I listened to a piece of music composed especially for people with cancer."—Name withheld by request

"I was laying on the bed and I could smell three distinctive odors I haven't even thought about for a long time, which were pleasant odors to me. And then I felt like crying and my leg was moving in time with the rhythm in small short contractions and my knee, which has been bothering me off and on since July, — it was releasing the tension in my knee by that movement! And when I got done listening the pain was gone in that knee. It just released that stress so quickly! I was amazed! If that's all it ever does for me it's well worth the price. And I'm sure it will help me in much more ways as I continue to use it. Thank you very much for your music and your tape and I'll continue to let you know of good things that happen to me. Thank you!"—Susan Egbert, recovering from brain injury, South Jordan, UT

"While recuperating from surgery last year I played the tape several times a day. The music is beautiful and reflects so many wonderful things in life. I continue to play the tape when feeling stressed due to my very busy schedule. I have also found it very soothing when trying to get back to sleep after being called to the emergency room at three o'clock in the morning. The Feeling Stressed tape is the most effective music that I have heard for stress and relaxation. I shall recommend it to my friends, colleagues, and especially my new mothers."—Marvin Nierenberg, M.D., Encino, CA

"I would strongly recommend it as a standard item for everyone's home supplies when stress and pain complicate a medical condition. No other tape has been as useful."—Sally Harrison, M.A., Psychologist, Quest Management Consultants, Fallbrook, CA

"Once I had finished listening to the music I felt more relaxed, rested and at peace. I didn't notice this while the music was playing. However, I did feel the long term effects of the whole piece after it was over. The guided imagery gave my body a sense of wholeness uniting the physical body with the mind and gaining a greater sense of awareness and energy. It helped take away the negative and restore new energy and hope. I felt like I took time out to take care of myself."—Andrea Wasserman, Physical Therapist, PT, PhD, Woodland Hills, CA

Music / Sound Glossary

Sound:

- Transmitted vibrations of any frequency including those outside the range of human hearing.
- The sensation stimulated in the organs of hearing by such vibrations in the air or other medium.
- A distinctive noise.

Music:

- Transmitted vibrations of any frequency including those outside the range of human hearing.
- The sensation stimulated in the organs of hearing by such vibrations in the air or other medium.
- A distinctive noise.

Harmony:

- Simultaneous combination of notes
- The study of the structure, progression and relation of chords
- Combination of sounds considered pleasing to the ear.

Harmonics:

- Of or relating to harmony.
- Integrated in nature.
- Series of overtones produced as an integral multiple of a fundamental tone.
- The theory or study of the physical properties and characteristics of musical sound.

Vibration:

- A rapid back and forth motion or oscillation.
- To shake or move with or as if with a slight quivering or trembling motion.
- To produce sound; resonate.

Resonant:

- Strong and deep in tone, resounding.
- Continuing to sound in the ears or memory; echoing.
- Having a prolonged subtle or stimulating effect beyond the initial impact.

Dissonant:

- Discordant
- A clashing musical interval

Consonant:

- Harmony or agreement among components.
- Correspondence or re-occurrence of sounds; repetition.
- An agreeable combination of sounds or musical notes

Coherency:

- The action or fact of stitching together, cohesion
- Logical connection, congruity, consistency
- Harmonious connection of the several parts of a discourse, system, etc., so that the whole works together

FOOTNOTES AND REFERENCES

1. Deepak Chopra, M.D. Educational Director of the Chopra Center for Well Being. Dr. Chopra was formerly chief of staff at New England Memorial Hospital. He taught at Tufts Univ. and Boston Univ. School of Medicine. Acknowledged as one of the world's greatest leaders in the field of mind body medicine, he continues to transform our understanding of the meaning of health. Through his creation of The Chopra Center for Well Being in California in 1995, Chopra established a formal vehicle for the expansion of his healing approach using the integration of the best of western medicine with natural healing traditions. As the Director of Education at The Chopra Center, he leads and develops training programs in mind body medicine. The University of California, San Diego School of Medicine has granted continuing medical education credits for this program, which satisfies requirements for the American Medical Association Physician's Recognition Award. Through his partnership with David Simon, M.D. and numerous health care professionals in both conventional and complementary healing arts, Chopra's work is changing the way the world views physical, mental, emotional, spiritual and social wellness.

Chopra is known as the prolific author of over 42 books, more than 100 audio, video and CD-ROM titles which have been translated into 35 languages with over 20 million copies sold worldwide. As the keynote speaker, he appeared at the inauguration of the State of the World Forum, hosted by Mikhail Gorbachev and the Peace and Human Progress Foundation, founded by the former president of Costa Rica and Nobel Peace prizewinner Oscar Arias. Chopra serves as an Adjunct Professor at Kellogg School of Management and is the recipient of the Einstein Award through Albert Einstein College of Medicine in collaboration with the American Journal of Psychotherapy. Along with Nobel Peace Laureates Oscar Arias, Betty Williams and others, Deepak Chopra is a founding director of the Alliance for the New Humanity, committed to creating a critical mass of consciousness in the world for social justice, economical freedom, ecological balance and conflict resolution.

2. Dr. Alfred A. Tomatis, 1/1/1920 – 12/26/2001. Famous Ear, Nose and Throat specialist in Paris, started studying the impact of occupational noise after World War II. He laid the groundwork for a new multi-disciplinary science called Audio-Psycho-Phonology (APP), which explains "why the way we listen" has a profound impact on almost all aspects of our being. His discovery opened a whole new area of research, discoveries for which he was named Knight of Public Health of France in 1951 and the gold medal for Scientific Research in Brussels, 1958. Tomatis has written 14 books and numerous articles.

Tomatis found that people who are right ear dominant learn much more easily. With a strong background in neurology, he readily understood that the right ear is connected to the left brain, the place where language is processed - a fast and accurate connection. The left ear, however, is connected to the right brain, where language cannot be processed. It has to jump *via* the corpus callosum to the left brain.

The Tomatis Listening Therapy, still highly regarded today, has helped children and adults with auditory processing problems, dyslexia, learning disabilities, attention deficit disorders, autism, and those with sensory integration and motor-skill difficulties. It has also helped adults fight depression, learn foreign languages faster, develop better communication skills, and improve both creativity and on-the-job performance. Many musicians, singers and actors also found it helpful in fine-tuning their artistic skills.

3. www.musictherapy.org

4. Amrita Cottrell - Founding Director, [The Healing Music Organization](http://TheHealingMusicOrganization.org) - Santa Cruz, CA, www.healingmusic.org; Member, Faculty- California Institute of Psychoacoustics - San Francisco, CA; Teacher- California Institute of Psychoacoustics - San Francisco, CA, Founder and Director - [Center of Harmonic Living](http://CenterofHarmonicLiving.org), Santa Cruz, CA

5. [The Mozart Effect®](http://TheMozartEffect.com), Don Campbell - Campbell is a recognized authority on the transformative power of music, listening, and [The Mozart Effect®](http://TheMozartEffect.com). In Campbell's unique view, music is not only a rich and rewarding aesthetic experience but an easily accessible bridge to a more creative, intelligent, healthy, and joy-filled life. His singular mission is to help return music to its central place in the modern world as a resource for growth, development, health, and celebration.

Campbell provides compelling evidence of the influence of particular sounds, tones, and rhythms on mental performance and creativity, as well as in the treatment of disease. Interweaving the riveting stories of ordinary men and women with solid research by doctors, psychologists, and music therapists, **he** shows how music can be used to improve memory and learning, boost productivity, soothe jangled nerves, strengthen endurance, unlock creative impulses, sound away pain, and heal the body from a host of ailments.

6. [Mind Body Medicine: How to Use Your Mind for Better Health](http://MindBodyMedicine.com)

by [Daniel Goleman](http://DanielGoleman.com) (Editor), – “Written almost exclusively by M.D.s and Ph.D.s, this collection of essays takes a calm and serious view of alternative medicine without endorsing all its ideas. The authors clearly explain how a person's thoughts and feelings affect disease, discussing the latest scientific findings on such subjects as the placebo effect, mind and stress, and how the immune system is affected by emotions. They examine techniques like meditation and exercise in relation to specific medical conditions. The essays are comprehensive, objective, and practical, depicting the new techniques as complements to rather than replacements of standard medical therapy.”
Library Journal

7. [Wholeness and the Implicate Order](http://WholenessandtheImplicateOrder.com) by David Bohm (1917-1992) - Bohm was arguably the most famous physicist of the second half of the twentieth century. He was an almost unique figure among scientists in that though heavily influenced by Einstein, he was also inspired by Mysticism - late in his life he made contact with both J. Krishnamurti and the Dalai Lama, who both influenced his work. In this classic work David Bohm develops a theory of quantum physics which treats the totality of existence as an unbroken whole.

8. Fabien Maman is a musician, composer, acupuncturist, author, researcher, healer, teacher, “bioenergetician” and martial artist. As a musician/composer, he performed his original compositions in the great concert halls of the world, including Carnegie Hall, the Tokyo Opera, the Paris Olympia and the Berlin Philharmonic. He was the recipient in 1980 of the Grande Prix de Composition Francaise. In 1977, Fabien became an acupuncturist, linking music with acupuncture. He created the now famous system which uses tuning forks instead of needles on acupuncture command points.

In the early 80's, Fabien conducted his revolutionary biology experiments at the University of Jussieu in Paris, showing the impacts of acoustic sound on human cells and their energy fields. Fabien found that through a series of acoustic sounds, he could explode cancer cells, as well as energize and empower healthy ones.

Fabien has taught and lectured around the world including College de France, Atman College de Osteopathie de Nice, Academic Hospital of Leningrad, the Bristol Cancer Clinic in England and IBRACHI, the Acupuncture College of Sao Paolo, Brazil. He also teaches every summer for his Academy in the South of France.

In the United States, he was a key speaker for the World Research Foundation, the 11th Congress of Alternative Medicine, and at the second and third Sound Colloquia. He has taught at the Portland College of Acupuncture, and, for five years, he has taught at the New York Open Center. He is the author of a series of four books: [From Star to Cell: A Sound Structure for the Twenty-First Century](http://FromStartoCell.com).

9. Mitchell Gaynor, M.D., Medical Oncologist, Director of Medical Oncology and Integrative

Medicine at the Strang-Cornell Cancer Prevention Center and New York Hospital, and author of *Sounds of Healing: A Physician Reveals the Therapeutic Power of Sound, Voice and Music*; Broadway Books, June, 1999

10. Dr. Sir Peter Guy Manners - British medical doctor and osteopath who collated the work that had been done in cymatics research and developed from it the therapy of Cymatics, therapy using a toning device to transmit into diseased areas of the body the signature vibrations of healthy organs and tissues.

Dr. Manners started off in ordinary medicine but soon reached a startling realization while observing doctors in the process of treating their patients.

Knowing that there had to be a better way of healing than what was taught to him in medical school, Dr. Manners traveled all over the world seeking to find out what other options existed for treating patients. He studied with scientists in Germany, Russia, and the United States. Manners found that making forms and shapes with sound coincided with the forms and shapes of anatomy and physiology. Out of this observation came Cymatics, or Bioresonance, therapy - the use of sound to transform diseased tissue into its healthy counterpart.

11. Elizabeth Colorio is director of research, development and education at Cymatherapy International. As a registered nurse, she specialized in critical care medicine before becoming a seeker of greater knowledge and scientific truth in research. She is registered with the World Health Organization as a doctor of cymatics and bioenergetic medicine.

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Does music therapy simply consist of music used therapeutically? As Bruscia's definitions demonstrate, music therapy is much more complex. It shouldn't be confused with "music medicine" which is music interventions delivered by medical or healthcare professionals (Bradt & Dileo, 2010). Music therapy, on the other hand, is administered by trained music therapists (Bradt & Dileo, 2010). How does music therapy work? Well, it is claimed that five factors contribute to the effects of music therapy (Koelsch, 2009).