WHAT IS SOUND HEALING?

Simon Heather

*The knower of the mystery of sound knows the mystery of the whole universe.*
– Hazrat Inayat Khan

Abstract

Sound Healing is one of the oldest forms of healing known to man. We are now realising how powerful sound can be when used for healing. This article explains why sound is so healing for us, discusses the principles of sound healing – resonance, entrainment and intention, the healing power of the voice, harmonics and musical intervals, chant and rhythm. Scientific research is reviewed on sound healing and how sound effects the cells in our body. This article highlights the unique power for healing that is contained in our voices. When we sing we resonate every cell in our body. Sound healing offers us all the possibility of a drug free way of treating pain and illness as well as a way of tuning ourselves to the Divine.

Introduction

Sound healing is the therapeutic application of sound frequencies to the body/mind of people with the intention of bringing them into a state of harmony and health.

Sound Healing can be transmitted to people in a number of ways:
1. Through using their own voice
2. Through using their voice with other voices
3. Through using their own voice while listening to music
4. Through listening to another person's voice or a number of voices
5. Through listening to an instrument or instruments
6. Through listening to music or sound through a loudspeaker or through headphones

How Does Sound Healing Work?

Each organism has its own vibratory rate. Every object in the universe has its own unique resonant frequency. Tap a wineglass and it will emit a ringing sound determined by its size, shape and the thickness.

When an opera singer vibrates a glass with her voice the singer has matched her voice to the resonant frequency of the glass and set it into vibration. As the singer increases the volume of her sound the resonance may become too great for the forces that hold the glass together and it shatters.
Luckily, our bodies are more flexible than a glass! The cells of our body enjoy the vibration of sound.

Resonance is readily demonstrated when one 'C' tuning fork is struck and placed next to another 'C' tuning fork. The second tuning fork will begin to resonate together with the first tuning fork. The sound wave from the first tuning fork has imparted some of its energy to the second one.

If the stem of the struck tuning fork is placed on a metal, glass or wooden object, this object will begin to vibrate. A simple experiment can be conducted by placing a tuning fork on the top of one’s head. You will find that bone is an excellent conductor of sound.

In air sound travels at 340 meters per second (760 miles per hour). In water sound travels at 1,500 meters per second (3,350 miles per hour). In glass sound travels at 5,600 meters per second (12,500 miles per hour). The human body is made up of 70% water; this makes it a very good conductor of sound.

Modern medicine now uses sound waves to break up kidney and gallstones in the body. The machine used is called a Lithotripter. This machine bombards the stones with a specific sound frequency for one to two hours. The patient is admitted in the morning and discharged in the evening. Generally no anesthetic is needed. With most patients only one treatment is necessary to break the stones down. The pulverized stone is passed out of the body through the urine.

Every organ, every bone, every cell in the body has its own resonant frequency. Together they make up a composite frequency like the instruments of an orchestra. When one organ in the body is out of tune it will affect the whole body.

Through the principle of resonance it is possible to use sound to bring the body back into harmony, avoiding the need for drugs or surgery.

Entrainment

In 1665 a Dutch scientist Christian Huygens, discovered the principle of entrainment. This principle states that whenever two or more oscillators in the same field are pulsing at nearly the same rate, they tend to lock in and begin pulsing at exactly the same rate. The powerful rhythmic vibrations from one source will cause less powerful vibrations of another source to lock into the vibration of the first source.

Systems theory states that; “the less diversity there is in a system the more energy it will conduct.” In terms of sound vibrations, the fewer components there are present in a system, the less diverse the resonant frequencies there are present, and the more easily a given single energy frequency or multiple energy frequencies will be conducted through the system. It takes less energy to pulse in cooperation that in opposition.

This principle has been proposed to work in a metaphoric sense as well. The composer Paul Hindemith said “People who make music together cannot be enemies, at least while the music lasts!”

Nature seeks the most efficient functional state. We see the law of entrainment in action when birds fly together in migration; they will flap their wings together and glide at the same time to save energy, flapping their wings in group rhythm so as to take advantage of the pocket of air turbulence created by the bird in front of them – which provides greater resistance to their flapping wings. Through mechanisms that have yet to be determined, women who work or live together will often find that their menstrual cycles will synchronize.
Itzhak Bentov (1977) illustrates this phenomenon: If you place a number of grandfather clocks on a wall with pendulums all swinging at different rates, within a few hours all the pendulums will be swinging at the same speed.

The principle of entrainment can be experienced when one sings in a choir. If you are singing next to someone with a strong voice it is easy to sing your part. If the person with the strong voice is singing a different part to you it becomes much harder to hold your part.

Entrainment can be used to restore harmonious body functions. If a part of our body is out of balance we can retune it like tuning a piano. If a piano is out of tune, do we drug the offending key or rip out the offending piano wire? This is precisely what we do to the human body by conventional medicine and surgery. When a person is ill, some of their body functions are out of harmony with the whole of their organism.

If a sound healer sings a strong clear harmonious sound to a person who is sick or out of balance psychologically or bioenergetically, their body will lock into you're the healer’s more powerful healing sound. The principles of resonance and entrainment are both at work in a sound healing treatment.

There will come a time when a diseased condition will not be described as it is today by physicians and psychologists, but it will be spoken of in musical terms, as one would speak of a piano that was out of tune.

– Rudolph Steiner

Recent scientific research has identified specific sound frequencies, which relate to different parts of the body Dr. Peter Guy Manners, MD, an English Osteopath, and pioneer in using sound to heal, studied Dr. Jenny's Cymatics and created Cymatics therapy. Dr. Manners correlated different harmonic frequencies that are the healthy resonant frequencies of various parts of the body. (Gardner, 1990; Manners).

Royal Raymond Rife, a researcher in San Diego in the early part of the 20th century, successfully eliminated cancer and other diseases using an electronic device he invented that emitted specific frequencies Therapeutic application of the appropriate sound frequencies can help disorders in the body. (Royal Rife Society).

Intention

Intention is another important principle underlying the way sound healing works. If we sing a pure sound to another person with a pure intention, then healing will occur. Intention is not something you do, but rather a force behind everything in the universe.

Jonathan Goldman (1992) says, "When we have learned techniques for harmonic toning, the human voice is able to create nearly every frequency, at least within the bandwidth of audible frequency". He offers the simple formula, "Frequency plus Intention equals Healing." If we can find the right sound frequency coupled with the right intention then healing will occur.

Carlos Castenada (1993) said there is an immeasurable, indescribable force, which shamans called 'intent,' and absolutely everything that exists in the entire cosmos is connected to it. You can call it spirit or soul or consciousness or universal mind or source. It is the invisible force that creates everything into the universe. Whenever we are in harmony with that source from which we all emanated then we can achieve miracles. Intention is aligning ourselves with this universal power.

Every action we perform has a conscious or unconscious intention behind it. We can see the principle of intention at work when a mother sings her baby to sleep. In a Sound Healing
treatment, the sound carries our intention to restore harmony in the body, emotions, mind, and spirit of the person receiving treatment.

**Voices**

*If the person’s voice is whiny and has a sucking in or gasping sound, the person has a negative health condition and is often so discouraged or hopeless that self pity becomes the positive polarity (instead of health), an no healing can be effected until the person reverses his tonal pattern.*

– Laurel Elizabeth Keys

Laurel Elizabeth Keys (1973) discovered toning by accident. One day, her body became filled with a sound so great that she had to express it: 

*"Each time I toned, my body felt exhilarated, alive as it had never felt before, a feeling of wholeness and extreme well-being."*

Toning is defined as: ‘to make sound with an elongated vowel for an extended period.’ Toning vowel sounds is an easily learned skill. Toning oxygenates the body, deepens breathing, relaxes muscles and stimulates the whole body. Regular toning helps to restore health to the mind, body and spirit.

Toning together with other people will give us a feeling of connection with others. Toning can also help us to release stress and repressed emotions. Toning strengthens the vocal muscles. It assists in improving our breathing and posture. The muscles of the digestive system are massaged and stimulated by regular toning. Toning can relax and energize us at the same time.

The human voice has a vast potential for healing. All of us have the ability to create pure tone and vocal harmonics. When we first learn to speak we have a wide vocal range, as we grow older our voice begins to become more restricted and closed.

Research suggests that toning has a neurochemical effect on the body, boosting the immune system and causing the release of endorphins in the brain. Toning can release psychological stress before surgery, lower the blood pressure and respiratory rate of cardiac patients, it can also reduce tension in those undergoing MRI and CAT scans. Toning has also been effective in relieving insomnia and other sleep disorders. (Campbell, 1997, pp. 90-99)

Research in the USA has shown that certain sounds are under stress in our voices. These sounds correspond to imbalances in our bodies. Changing our own voice pattern changes our brain wave frequencies and reduces illness. Removing the stress frequencies in the voice has helped to reduce high blood pressure; it has helped diabetes, emphysema, and eye problems, reduced pain and speeded up the body’s healing (Beaumont, Winter 1994/1995).

Our voice is the ultimate healing instrument.

*The voice is the only instrument made by God. All other instruments were made by man.*

– Sufi saying

Toning is an easily learned skill that begins to free the voice again, after it has become out of harmony through dis-ease or disease. Regular toning helps to re-energize the body and restore health to the mind, body and spirit. There is a saying in German -

"Wo man singt, da lass dich ruhig neider boese Menschen haben keine Leider."

"Where there's singing, join the throng Evil man knows nought of song."

– Johann Gottfried Seume

When groups of people tone together, it produces a tremendous feeling of connectedness.
Harmonics

Pythagoras lived on the Greek island of Samos from 560-480 BC. He is credited with the invention of the monochord and the discovery of the harmonic ratios in sound. Pythagoras said, "Study the monochord and you will know the secrets of the universe." The monochord is a long wooden box with one long string attached to two raised pieces of wood to permit it to vibrate. When the string is plucked it produces a sound that is called the fundamental tone of the string. Using a wooden bridge we can divide the string in two equal parts. When either half of the now divided string is plucked it will produce the same note as the fundamental except it will be an octave (eight notes) higher, since it is vibrating twice as fast as the vibration of the fundamental.

If the string were divided equally into three, the note produced in the two other parts would be different from the fundamental note struck in any one part. If the fundamental note was 'C' the note produced would be 'G.', an octave above the fundamental note. If the string were divided equally into four, and the fundamental note were a 'C,' the note produced in the other sections would be a 'C,' the same note as the fundamental note but two octaves higher.

Pythagoras found that whenever the whole string was plucked higher sounds would be created by the entire string at the same time as the fundamental note. These higher sounds or 'harmonics' were mathematically related in frequency to the fundamental note through whole number ratios of 2:1, 3:1, 4:1. These harmonics were related to each other in ratios of 2:3, 4:3, 5:8. Pythagoras discovered that these ratios were also found in the proportions commonly used in harmonious spatial relationships in art and architecture.

Pythagoras saw the universe as a giant monochord, an instrument that stretched between heaven and earth. The higher sounds were those of pure spirit and the lower ones were those of the earth. Pythagoras found the harmonic intervals in all phenomena in nature; the elements, the planets and constellations.

In the 1920's a German scientist called Hans Kayser developed a theory of harmonics based on Pythagoras’s work. Kayser (1963) states that the whole number ratios of musical harmonics are found in the basic laws of chemistry, physics, crystallography, astronomy, architecture, spectroanalysis, botany and other natural sciences.

Singing Harmonics

Singing any note produces harmonics. Within one note are many notes, all related to the fundamental note through exact mathematical ratios. Most of the time we are unaware of the existence of harmonics. When we are in a room with good acoustics, like a church or a bathroom, we are suddenly aware of a richer sound, which is produced by the harmonics.

Ancient people used this knowledge when they constructed sacred sites like Stonehenge, Newgrange or the King’s Chamber in the Great Pyramid. All these buildings were sound chambers where sound healing took place. Research done by John Reid and Tom Danley in the King’s Chamber of the Great Pyramid revealed that the Resonant Frequency of the the Kings chamber and the sarcophagus in the Kings Chamber were the same 125 Hz. Subharmonics of this frequency would take us to the Shumann Resonance, which is the electromagnetic resonance of the earth (Elkington, 2001).

Paul Devereaux (2001) found spiral patterns on the walls at the Neolithic site at Newgrange in Ireland, exactly where standing waves occurred when the chamber was filled with low frequency sound. The low frequency sound that caused this effect was between 90 and 120 Hz, the frequency of a man’s bass voice. A person sitting in the chamber would have experienced an altered state of consciousness if they sat where the spiral patterns were in the chamber. When the chamber was filled with smoke and
resonated with low frequency sound, these spiral patterns appeared in the smoke! This suggests that the builders of this sacred monument understood the effect of these sounds on the listener.

When we hear music rich in harmonics, like Gregorian Chant, Indian classical music or a cappella singing, it induces an altered state of consciousness. It changes our brain patterns so that we feel more relaxed, more connected with the music (Campbell, 1997). Jonathan Goldman (1992) reports that Doctor Mark Ryder found that people who listened to the music of the 'Harmonic Choir' directed by David Hykes had a decreased breathing rate and heart rate.

Ancient cultures understood the power of harmonics. Stringed instruments are particularly rich in harmonics. In the bible, David is said to have played the harp to heal King Saul’s depression. Orpheus played the lyre, another stringed instrument in Ancient Greek mythology. In India, Saraswati, the Goddess of wisdom and music, is seen playing the Veena, a stringed instrument.

**Intervals**

If we sing or several notes, one after the other or at the same time, we create a musical interval. Each musical interval will have a different effect on our body, our emotions, and our mind. This explains why we choose different types of music at different times.

Generally, simple sound intervals like the third (e.g. C/E) and the fifth (eg. C/G) are uplifting and pleasing to the ear. Minor intervals (e.g. C/F Sharp) can induce tension or feelings of sadness. Some intervals are discordant and can help us to get in touch with darker emotions.

In an experiment, two people sang the notes of the octave into an oscilloscope (an instrument which measures sound waves and displays the frequencies on a screen). The oscilloscope showed the symbol of infinity, the figure eight. Is this a coincidence? When we study musical intervals further, we discover that each interval produces a mathematical ratio of the frequency of the two notes, expressed as a fraction. For example, the octave produced the 2:1 ratio, eg. C 512Hz/C 256 Hz. The fifth produces the 3:2 ratio, e.g. G 384Hz/C 256Hz.

When we study nature, we find these simple mathematical ratios cropping up everywhere. They are found in the structure of the atom, in crystals, leaves, petals, shells, in the proportions of the human body, and in the orbits of the planets around the sun (Doczi, 1981). Architects used these ratios when building the great cathedrals and ancient sacred buildings, finding that building proportioned to these ratios were experienced as having pleasant atmospheres. Goethe described architecture as 'frozen music.'

**Chant**

After a period of singing very simple chants, the mind of the singer becomes relaxed and clearer. This effect is used in most spiritual traditions. In India this practice is called 'kirtan.' When we repeat the same phrase over and over again, we relax and find states of joy and inner peace. This is particularly the case when we sing or chant with great devotion.

Over time, music became more complex in Western society. The singer and musician have to stay more concentrated in their left brain functions in order to play the different parts of music together. Consequently, we have lost much of the healing power of sound in our modern music.

**Rhythm**

Don Campbell (1977) references a variety of benefits of music with particular rhythm characteristics. Listening to Pachelbel's Cannon, which has a rhythm of 64 beats per minute, (the rate of a resting heart beat), will change our brain wave pattern from Beta to Alpha.
Slower tempo music slows our breathing rate. The human heartbeat will also tend to match the rhythm of music. Researchers at Louisiana State University listening to slow, easy-listening music lowered the heart rate and allowed for longer training sessions in a group of 24 young adults. Listening to hard-driving rock music had the opposite effect; heart rates increased and workouts were shorter when the subjects tuned in to rock ‘n’ roll. The study’s author, B. Don Franks, Ph.D., professor in the university’s Department of Kinesiology, says the soft music may make the exercise seem less difficult and allow people to work out longer.

Music influences the limbic system of the brain through pitch and rhythm, affecting our emotions, feelings and sensations. Listening to slow classical music calms the nervous system and improves metabolism.

**Drumming**

Repetitive drumming slows down our brain rhythm, helping us to experience trance-like states. These techniques, prominent in Shamanic practices, allow the healer and client to leave normal conscious awareness in order to journey to other realms of consciousness (Campbell, 1997). Here, healing can take place.

Barbara J. Crowe (Campbell, 1997) says that from a physiological perspective, drumming creates this affect in the listener because of the action of the reticular activating system (RAS) located in the brainstem. This structure alerts the brain to incoming sensory stimulation. Loud, repetitive sound such as drumming floods the brain with input and overrides the other sensory channels. Normal brain activity is suppressed, and the consciousness is freed to explore other forms of perception.

**Effects of Sound on Cancer Cells**

Fabien Maman (1997) did experiments using healthy blood cells, hemoglobin and ‘HeLa’ cancer cells from the uterus in cell cultures. The cancer cells were found to become unstable and disintegrate when they were played all the notes of the musical scale played at 30-40 decibels. “In contrast, healthy cells absorbed and integrated the sound without resistance.”

**Everything in Nature is Vibrating**

Our body has a whole number of rhythms:

- Heartbeat - normally 60 to 75 beats per minute (Resting 60 / Average activity 72)
- Breath - normally 14 to 16 breaths per minute
- Cranio-sacral pulse (pressure of fluid in the brain and spinal cord) - 8 to 12 times per minute
- Gastrointestinal tract - contracts once a minute
- Stomach - contracts every three minutes
- Brain waves - waking state 18 to 22 cycles per second
- Body temperature - changes from day to night

All of these rhythms will be affected by the drumbeat. When we are in a state of stress our heartbeat can increase to 87 beats per minute. When we are deeply relaxed this rate will fall to around 57 beats per minute.

The regular rhythm of the drumbeat will entrain our heartbeat to its rhythm. In a healing session we may take a person’s pulse to determine their heart rate then begin playing at that rate. Over a period of ten minutes we can gradually reduce the drum beat rate to help the person to relax. We can watch their breathing rhythm to gauge how quickly their heart rate and breathing rate has entrained to our beat.
What does Sound Healing Involve?

*Vocal Expression* - toning, singing, chanting, laughing.

*Using Instruments* - crystal bowls, drums, gongs, Tibetan bowls, tuning forks and other musical instruments.

*Music* - The use of music to relax, to reduce pain and assist before surgery.

*Sound Healing Therapy* - Where a person receives a sound healing treatment from a sound healer.

*Self Healing* - Using sound healing through any of the above, plus CDs for self healing.

Benefits of Sound Healing

These are some of the benefits reported by those receiving sound healing treatments:

- Improved joint function
- Reduced pain and inflammation
- Kidney stones and bunions disappearing
- Ovarian cysts shrinking in size
- Improved sleep pattern
- Reduction in number and severity of headaches
- A more positive attitude to life
- An increased ability to deal with life’s challenges
- Improved memory and concentration
- Deep relaxation

Sound Healing Therapists’ Reports

*Stephanie Hiller* trained with the UK College of Sound Healing. Based in Somerset, UK, she works from her home in Wells and also at a therapy centre in Glastonbury. Stephanie specializes in using the Shakuhachi (a Japanese Zen Meditation Flute) in her treatments, as well as other sound healing tools.

**Case study – Teresa**

*History:* Teresa has a history of knee problems – specifically arthritis, in addition to old injuries in both knees. She also experiences a lot of stress in her life.

*Treatment:* I used the C and G forks around the aura and either side of the head. In sequence, I put one Tibetan Bowl on the sacrum, another between the shoulder blades and held a third above the head, striking each in turn to move the energy through the chakras. I worked in silence with my hands on the backs of the knees, and later toned through my hands on the kneecaps. I also used the Otto tuner (special tuning fork for use directly on the body) on the kneecaps and did some Shakuhachi (traditional Japanese bamboo meditation flute) improvisation to relax her.

*Teresa’s report:* Teresa said that her knees felt like they had lovely warm pads on them - very soothing and comforting. The Tibetan Bowls on her spine ‘found all the right spots,’ right down into her hip. As soon as I started playing the Shakuhachi, the sound went straight to the neuralgia in her face and a comforting warmth began spreading across her cheek and across the other side of the face.

*Feedback one week later:* Teresa felt she had lots of energy for several days after the session – unexpectedly, as she usually feels very lacking in energy. Her knees felt very comfortable for
about three days afterwards. They usually hurt all the time.

Teresa would love me to integrate some Sound Healing into her monthly Reiki sessions in future.

**Julie Moore – Is a homeopath working in Shropshire in the UK.**

This was one of my first cases studies using sound healing; which I presented as one of the case studies required for graduation. I approached sound healing with healthy skepticism during my training, but I had some great results that convinced me this is a very potent healing method. Still, cases such as this one never cease to amaze me.

**Case study - Steve**

*History:* Steve came to me with a neck injury. Fifteen years ago he had a severe car accident. Since then he is in constant pain; intensity varies. Physiotherapy and resting helps. He also has pain down his arms and numbness in his fingers. He suffered from headaches, sometimes severe, with lines of pain through his eye into his neck. He has a lot of trouble sleeping. Steve has a physical job, lifting and carrying. He has a herniated disc in his lower back. His right knee has been painful for years.'

*Scanning:* When I scanned Steve’s body with my voice I picked up blocked energy up in the following three areas: Left shoulder; spine; right knee and a specific point below the knee. He could not relate to below his knee. That is, he was not aware of any problems in this part of his body when asked. at the time. Interestingly, I also picked up nothing from the neck area, but I know that pain can be referred.

The healing: As I started, I felt as though the healing would originate from the spine and this was central to the whole picture. I felt as if the bones were in shock. I started toning from the cervical spine, downwards. I spent more time in the lumbar area, which I felt was very strained. I used one tone. While silent, I intuited that I needed to repeat what I’d just done, and did so, using a single different tone. As I toned, I could feel heat off the client's body, and a sense of it resonating back to me. (When it sings back, it tells me I’m doing the right thing.). I intuited that that was all I needed to do, other than some healing on the big joints, so I toned hips and knees and then I toned a deep tone on both feet.

Immediately after the treatment, my client looked bright-eyed and relaxed. Steve's feedback from the treatment: He said he could definitely feel things happening during the treatment, "like having Reiki." He said it felt like he did when he used to meditate; and that he had felt twinges, twitching and spasming while treatment was taking place.

Feedback one week after treatment: "Feeling pretty good. A real high last Friday. I feel like I've never felt before. When I reversed the van onto the drive after the treatment, I realized that I had got a lot of movement there. I've got full movement in my neck at the moment. I feel really alert. The constant dull ache I had is now intermittent. A lump under my knee, which I'd had since the age of 14 (which you picked up on the scan and I had forgotten about) had gone by the time I got home. It's an indentation now!"

**In Summary**

In this article I have explained how sound healing works through the principles of resonance, entrainment and intention. I have highlighted the unique power for healing that is contained in our voices. When we sing we resonate every cell in our body.

The sounds we make with our voice affect us in many ways. The harmonics in our voice give it its unique colour. When we hear sounds that are rich in harmonics it will often take us into altered states of consciousness.
These altered states of consciousness seem to be an essential part of the healing process. There is a relaxation of the rational mind and an opening to new ways of being which are more whole and healthy.

The research mentioned in the article indicates that ancient cultures knew about the healing power of sound and created structures that were essentially sound chambers.

Rhythmic chanting and drumming also has the power to change our state of consciousness and make us more receptive to healing. This knowledge is used by Shaman’s all over the world.

Research into the healing power of musical intervals helps us to understand why each of us is drawn to different types of music for relaxation, upliftment and healing.

Sound healing offers us all the possibility of a drug free way of treating pain and illness as well as a way of tuning ourselves to the Divine.

References

http://www.sacredscience.com/store/commerce.cgi?product=TRN
Simon Heather, M.Soc.Sc., I.A.S.T., Lic.Ac., M.C.O.H., Simon is an internationally known workshop leader, healer and author. Simon is the founder of the College of Sound Healing. Simon is one of the leading teachers of sound healing in the UK. Simon has trained extensively in the healing arts: acupuncture, body work, Chinese medicine, massage, emotional healing, sound healing, sacred dance, qi gong, and yoga. Simon has taught sound healing in Australia, Canada, Ireland, Russia, South Africa, New Zealand, and the USA as well as in the UK. Simon is a member of the College of Healing, the International Association of Sound Therapy and the Natural Voice Network.

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