The Healing Music Organization
Glossary of Terms

Acoustics a•cous•tics Pronunciation: (u-kOO'tiks)

1. The branch of physics that deals with sound and sound waves.
2. The qualities or characteristics of a room, auditorium, stadium, etc., that determines the audibility or fidelity of sounds in it.
3. The science of sound, including its production, propagation, and effects. Various branches of acoustics that deal with different aspects of sound and hearing include bioacoustics, physical acoustics, ultrasonics, and architectural acoustics.
4. The speed of sound in air at sea level is approximately 1000 ft/sec (300 m/sec), which is roughly a millionth the speed of light in air.
5. Sound waves are longitudinal, which means that the material particles transmitting the waves oscillate in the direction of propagation. Important factors to be considered in working with sound include reverberation and interference. Reverberation is the persistence of sound in an enclosed space caused by repeated reflections.
6. Reflection of sound sometimes causes an echo. Depending on the location of the listener and the frequency of the sound, varying degrees of interference between the primary sound and its reflections will be produced. Reflection can be reduced by the use of sound-absorbent materials, which are usually soft and porous, such as draperies, upholstery, carpets, acoustic tile, or plaster. In a room, reflection is decreased by the presence of people and open windows and doors.

Ambience *am•bi•ence* ***Pronunciation:*** *(am'b**E**-uns)*

The acoustic characteristics of a space with regard to reverberation. A room with a lot of reverb is said to be "live"; one without much reverb is said to be "dead".

Ambient Noise *am•bi•ent noise* ***Pronunciation:*** *(am'b**E**-unt) (noiz)*

The composite of airborne sound from many sources near and far associated with a given environment. No particular sound is singled out for interest.

Amplitude *am•pli•tude* ***Pronunciation:*** *(am'plin-tud)*

1. The maximum displacement of a periodic current or wave.
2. The loudness of a sound. Amplitude is normally expressed in decibel level or dB.

Auditory sequential processing (ASP) *au•di•to•ry se•quen•tial*
Pronunciation: *(ô'di-tôr"**E**, -t**O**r"**E**-) (si-kwen'shul)*

The ability to link pieces of auditory information together.

Auditory tonal processing (ATP) *au•di•to•ry* ton•al
Pronunciation: *(ô'di-tôr"**E**, -t**O**r"**E**-)* (t**O**n'l)

The ability to differentiate between the tones utilized in language.

Background Noise *back•ground noise*
Pronunciation: *(bak'grownd) (noiz)*

Noise from all sources unrelated to a particular sound that is the object of interest. Background noise may include airborne, structureborne, and instrument noise.

Beaming *beam•ing* ***Pronunciation:*** *(b**E**'ming)*

The phenomenon of sound being emitted within a comparatively small solid angle. This characteristic becomes more acute as the frequency increases.

Beats *beats* ***Pronunciation:*** *(b**E**tz)*

1. Periodic fluctuations that are heard when sounds of slightly different frequencies are superimposed.
2. A periodic variation in amplitude that is a result of the superposition or addition of two tones with nearly the same frequency- less than 30 Hz or so apart. It is most easily noticed when the original sounds are of equal volume. The frequency of the beats will be the difference in frequency between the two signals.

Binaural Beats *bin•au•ral beats*
Pronunciation: *(b**I**-nôr'ul, bin-ôr'ul) (b**E**tz)*

The result of two pure tones played at slightly different pitches and heard by the two ears. The brain measures the difference between the two pitches. This phantom tone is only heard in the brain.

Bioacoustics *bi•o•a•cous•tics* ***Pronunciation:*** *(b**I**"**O**-u-k**OO**'stiks)*

1. The science concerned with production of sound and its effects of living systems and most often is referred to in non-human animals. It includes within its scope acoustic communication, sound production mechanisms, auditory anatomy and function, sonar, acoustic tracking, and the effects of human-made and environmental noise on animals.
2. The science of sounds produced by or affecting living organisms, as for communication or echolocation.

Biotuning *bi•o•tun•ing* ***Pronunciation:*** *(b**I**"**O**-t**OO**-ning)*

1. An unconditional offering of sound frequencies that are 'heard' by the whole body-mind as well as the ears. These frequencies are selected by ascertaining the individual's needs by means of a series of biofeedback tests.
2. Consists of a mixture of harmonic resonance, primordial sounds, neuro-acoustics and psycho-acoustics.

Composition *com•po•si•tion* ***Pronunciation:*** *(kom"p u -zish' u n)*

1. The act of creating written works; "writing was a form of therapy for him"; "it was a matter of disputed authorship"
2. A musical creation
3. The spatial property resulting from the arrangement of parts in relation to each other and to the whole; "harmonious composition is essential in a serious work of art"
4. a musical work that has been created; "the composition is written in four movements"

Consonance *con•so•nance* ***Pronunciation:*** *(kon'su-nuns)*

1. A correspondence of sounds; harmony of sounds.
2. A simultaneous combination of tones conventionally accepted as being in a state of repose.
3. The property of two sounds the frequencies of which have a ratio equal to a small whole number.
4. Concordant or harmonious combination of tones that provides a sense of relaxation and stability in music.

Cymatics *cy•ma•tics* ***Pronunciation:*** *(s**I**' mat'iks)*

1. The study of wave phenomena.
2. The science of how sound affects matter.

Detuning *de•tun•ing* ***Pronunciation:*** *(dE' tOO'ning)*

A process used in the creation of binaural beats whereby simultaneous tones are slightly adjusted by only a few Hz.

Dissonance *dis•so•nance* ***Pronunciation:*** *(dis'u-nuns)*

1. Not fitting, out of tune.
2. Inability to be flexible.
3. Combination of tones that sound discordant and unstable, seeking resolution.

Drone drone ***Pronunciation:*** (dr**O**n)

A long, uninterrupted tone or tones used as a base for music or meditation.

Echo *ech•o* ***Pronunciation:*** *(ek'**O**)*

A delayed return of sound that is perceived by the ear as a discrete sound image.

Ethnomusicology *eth•no•mu•si•col•o•gy*
Pronunciation: *(eth"n O -my OO "zi-kol' u -j E)*

1. The study of folk and primitive music and of their relationship to the peoples and cultures to which they belong.
2. The study of "people making music", and encompassing the study of all musics, including Western art music and popular musics.
3. Music ethnography may be synthesised with a variety of analytical, historical and other methodologies, often entering into dialogue with other disciplinary areas such as music psychology, music education, historical musicology, performance studies, critical theory, dance, folklore and linguistics.
4. Ethnomusicology is a branch of musicology. This discipline developed after World War II in Western countries with a special emphasis on the inter-disciplinary approach to music. Like any other academic field, created and recreated through research, writings and teaching.

Entrainment *en•train•ment* ***Pronunciation:*** *(en-tr**A**n'm unt)*

1. A physical phenomenon first observed in the 17th century, the tendency for two oscillating bodies to lock into phase so that they vibrate in harmony.
2. The synchronization of two or more rhythmic cycles appearing in chemistry, pharmacology, biology, medicine, psychology, sociology, astronomy, architecture, etc.
3. Synchronization

Euphonic *eu•phon•ic* ***Pronunciation:*** *(y**OO**-fon'ik)*

A pleasing sound, used in the audio industry which usually refers to a coloration or inaccuracy that none-the-less may be sonically pleasing.

Forensic Phonetics *fo•ren•sic pho•net•ics*
Pronunciation: *(fu-ren'sik) (fu-net'iks)*

1. The science of language in all its aspects, includes the study of grammar, pronunciation, conversation, language learning, history and origins of language, similarities and differences between languages, language learning, and many other sub-disciplines.
2. the systematic study of the sounds of language, including: their acoustic properties, their production (how they are formed in the mouth), their perception and recognition by humans and computers, their acquisition (how they are learned, both in the native language and in a second language), their relationships to one another in different languages.

Frequency *fre•quen•cy* ***Pronunciation:*** *(fr**E**'kwun-s**E**)*

1. The number of repeating cycles of change in air pressure or oscillations in voltage, that occur in one unit of time usually a second. Complex sounds are made up of many pure tones of different frequencies. Measured in units originally called cycles per second (CPS), now called Hertz (Hz). For convenience, the human frequency range is divided into three rough areas or bands. High frequencies (between about 5 kHz and 20 kHz), mid frequencies (between about 200 Hz and 5 kHz) and low frequencies (between about 20 Hz and 200 Hz).Rate of vibration of a string or column of air, which determines pitch.
2. The frequency of a sound or vocalization is the pitch. In other words a human child's voice will probably be higher than a human adult.
3. The rate at which any periodic event repeats.
4. Directly related to pitch and inversely related to wavelength.

Frequency Response *tre•quen•cy re•sponse*
Pronunciation: *(fr**E**'kwun-s**E**) (ri-spons')*

The range between high and low frequencies that a component of an audio system can adequately handle, transmit, or receive, given a range, such as +/- 3dB. It is usually calculated by plotting frequencies versus amplitude; the frequency at which the amplitude drops by 3 dB becomes the limit of the frequency response.

Fundamental *fun•da•men•tal* ***Pronunciation:*** *(fun"du-men'tl)*

1. The lowest frequency partial which is present in a (normally) musical sound.
2. The initial frequency of the root pitch comprising a sound. In physics, the fundamental is defined as the lowest pitch of a sound, and in most cases this is true in music and audio-- but not always. It is generally the loudest pitch we hear.

Harmonic *har•mon•ic* ***Pronunciation:*** *(här-mon'ik)*

1. A special case of partial normally occurring in "musical" sounds, in which the frequency of the partial has a simple mathematical relationship to other partials. Generally they are all integer multiples of a particular fundamental frequency.
2. Of or pertaining to musical harmony (the juxtaposition of one note with another or others).

Harmonic Chant *har•mon•ic chant*
Pronunciation: *(här-mon'ik) (chänt)*

Transformative and spiritual practice of chanting developed and practiced by Tibetan monks. Proponents associate particular sounds with specific bodily "energy centers."

Harmonics *har•mon•ics* ***Pronunciation:*** *(här-mon'iks)*

1. Individual pure sounds that are part of any musical tone; in string instruments, crystalline tones in the very high register, produced by lightly touching a vibrating string at a certain point.
2. Overtones or vibrations at frequencies that are multiples of the fundamental based on mathematics and are referred to as either even-order harmonics or odd-order harmonics.
3. Harmonics extend without limit beyond the audible range.

Harmony *har•mo•nize* ***Pronunciation:*** *(har'mu-n**I**z)*

1. To fit together.
2. The simultaneous combination of notes and the ensuing relationships of intervals and chords. Not all musics of the world rely on harmony for interest, but it widely used in most Western music.

Hertz (H_z) *hertz* ***Pronunciation:*** *(hûrts)*

1. The international standard measurement or unit of frequency.
2. Cycles per second.

Infrasonic in•fra•son•ic ***Pronunciation:*** (in"fr*u*-son'ik)

1. Soundwaves below 20 Hz.
2. Most adults will be hard pressed to hear anything below 40 Hz. The average sub-woofer speaker broadcasts at about 25-40 Hz. However, at high enough amplitude (very loud) you can feel infrasound; it will shake you.

Inharmonic *in•har•mon•ic* ***Pronunciation:*** *(in"här-mon'ik)*

A partial or sinewave component of a sound which bears no simple arithmetic relationship to any other partial in the sound.

Intonation *in•to•na•tion* ***Pronunciation:*** *(in"t**O**-n**A**'shun)*

Pitch or the use of pitch. In musical terms, intonation often refers to pitch accuracy

Isomorphic *iso•mor•phic* ***Pronunciation:*** *(i-s**O**-'mor-fik)*

Of identical or similar form, shape, or structure as in *isomorphic* crystals.

ISO Principle

A term used in music therapy and sound therapy, you match music at the beginning of the process to the current emotional/physical state, and then gradually change the music to faster or slower, or music that is more complex or more simple, or music that is in a minor key or a major key as a way of changing the current mood to a more desired mood.

Marine Acoustics *ma•rine a•cous•tics*
Pronunciation: *(mu-r**E**n') (u-k**OO**'stiks)*

The study of sound and its behavior in the sea. When underwater objects vibrate, they create sound-pressure waves that alternately compress and decompress the water molecules as the sound wave travels through the sea. Sound waves radiate in all directions away from the source like ripples on the surface of a pond. The compressions and decompressions associated with sound waves are detected as changes in pressure by the structures in our ears and most man-made sound receptors such as a hydrophone, or underwater microphone.

Mathematics *math•e•mat•ics* ***Pronunciation:*** *(math" u-mat'iks)*

1. The systematic treatment of magnitude, relationships between figures and forms, and relations between quantities expressed symbolically.
2. That science, or class of sciences, which treats of the exact relations existing between quantities or magnitudes, and of the methods by which, in accordance with these relations, quantities sought are deducible from other quantities known or supposed; the science of spatial and quantitative relations.

Microtones *mi•cro•tones* ***Pronunciation:*** *(m**I**'kru-t**O**ns)*

The intervals that lie between the semitone steps of the equal tempered scale. This allows the use of tunings and modes that are more typical of non-western music.

Mode *mode* ***Pronunciation:*** *(m**O**d)*

1. A type of scale. If the notes used in a melody all appear in a given modal scale, and if the melody begins or ends on the base note (final) of the modal scale, the melody is said to be in that mode. The modes most commonly referred to can be obtained by playing only (and all of) the white piano notes between certain keys and their octaves thus: Ionian C - C, Dorian D - D, Phrygian E - E, Lydian F - F, Mixolydian G - G, Aeolian A - A. Modes are most commonly encountered in folk and ethnic music.
2. A room resonance. Axial modes are associated with pairs of parallel walls. Tangential modes involve four room surfaces and oblique modes all six surfaces. Their effect is greatest at low frequencies and for small rooms.

Music Therapy *mu•sic ther•a•py*
Pronunciation: *(my**OO**'zik) (ther'u-p**E**)*

1. The controlled use of music under the guidance of trained music therapists to help people overcome problematic conditions or behaviors and to achieve therapeutic ends.
2. Administered by a music therapist to individuals of all ages who require special services because of behavioral, social, learning, or physical disabilities. Music therapy can be found in hospitals, clinics, day care facilities, schools, community mental health centers, substance abuse facilities, nursing homes, hospices, rehabilitation centers, correctional facilities, and private practices.
3. A technique of complementary medicine that uses music prescribed in a skilled manner by trained therapists. Programs are designed to help patients overcome physical, emotional, intellectual, and social challenges. Applications range from improving the well being of geriatric patients in nursing homes to lowering the stress level and pain of women in labor. Music therapy is used in many settings, including schools, rehabilitation centers, hospitals, hospice, nursing homes, community centers, and sometimes even in the home.

Music Therapist *mu•sic ther•a•pist*
Pronunciation: *(my**OO**'zik) (ther'u-pist)*

A music therapist must prepare and carefully plan in order for music therapy treatment programs and intervention strategies to be effective for clients. The four basic steps for a music therapist to prepare for a new client are: (1) define the client's problem or area of need (assessment); (2) set a therapeutic goal for the client; (3) devise music activities that are related to the goal and appropriate to the client's level of functioning and capacity to respond; and (4) implement the procedure and evaluate the client's responses.

Neuro-acoustics *neu•ro•a•cous•tics*
Pronunciation: *(nooro-u-k**OO**'stiks)*

It has long been known that the brain generates electromagnetic signals, which can be detected with EEG (Electro-encephalogram) equipment and that different frequencies are produced depending on neural activity. For example, during sleep the dominant brainwave frequencies are very low and have been called Delta Waves; during meditation a higher range of frequencies known as Alpha Waves tend to predominate. Neuro-acoustics is the feeding back of these frequencies to the brain through the use of sound waves. Binaural beats are often used as a means of transferring this information in a spatial format to the body-mind.

Natural Frequency *nat•u•ral fre•quen•cy*
Pronunciation: *(nach'ur-ul) (fr**E**'kwun-s**E**)*

The frequency of vibration or oscillation which a system (anything from a road bridge to an violin string) will inherently adopt according to its structure given a suitable excitation, such as a gale force wind or a bow.

Noise *noise* ***Pronunciation:*** *(noiz)*

1. Any loud, disagreeable or unmusical sound.
2. A word used to describe signals which humans consider to contain little useful information, or which they actually find unpleasant.
3. There are some synthetic types of noise which are useful in sound synthesis and technical equipment alignment etc. These are called white noise, pink noise and blue noise. White noise contains all frequencies in equal amplitude distribution. Pink noise is filtered white noise (spectrum falls at 3 dB per octave) and other colors of the noise rainbow represent other filterings.

Overtone *o•ver•tone* ***Pronunciation:*** *(**O**'vur-t**O**n")*

A component of a complex tone having a frequency higher than the fundamental.

Partial *par•tial* ***Pronunciation:*** *(pär'shul)*

A single frequency, sinewave component of any sound. All sounds are composed of a number of partials. There are two classes of partials harmonic and inharmonic.

Pedagogy *ped•a•go•gy* ***Pronunciation:*** *(ped'u-g**O**"j**E**)*

The activities of educating or instructing or teaching; activities that impart knowledge or skill; "he received no formal education"; "our instruction was carefully programmed"; "good teaching is seldom rewarded"

Periodocity pe•ri•o•dic•i•ty ***Pronunciation:*** (p**E**r"**E**-*u*-dis'i-t**E**)

An event or sound that recurs at regular intervals.

Phase *phase* ***Pronunciation:*** *(fAz)*

1. The timing relationship between the different frequencies.
2. Phase is the measure of progression of a periodic wave.
3. Phase identifies the position at any instant which a periodic wave occupies in its cycle.
4. The relationship of an audio signal or sound wave to a specific time reference.

Physics *phys•ics* ***Pronunciation:*** *(fiz'iks)*

1. The science that deals with matter, energy, motion, and force.
2. The science of matter and energy and their interactions
3. The science of nature, or of natural objects; the branch of science which treats of the laws and properties of matter, and the forces acting upon it; especially, the department of natural science which treats of the causes (as gravitation, heat, light, magnetism, electricity, etc.) that modify the general properties of bodies; natural philosophy.
4. Physics includes such things as acoustics, astronomy, atomic physics, biophysics, crystallography, Einstein's theory of relativity, electromagnetics, kinetic theory, quantum theory, relativity, relativity theory, theory of relativity, thermodynamics, undulatory theory, uranology, wave theory, wave theory of light

Pitch *pitch* ***Pronunciation:*** *(pich)*

1. Highness or lowness of a tone, depending on the frequency (rate of vibration).
2. The subjective sensation produced by various frequencies. The higher the frequency, the higher the perceived pitch; however, frequency is not linearly related to pitch.
3. A term used for both a note and a frequency, i.e. "A" or "A440" or 440 Hz.

Psycholinguistics *psy•cho•lin•guis•tics*
Pronunciation: *(sI"kO-ling-gwis'tiks)*

The study of the relationship between language and the cognitive or behavioral characteristics of those who use it.

Psychoacoustics *psy•cho•a•cous•tics*
Pronunciation: *(s**I**"k**O**-u-k**OO**'stiks)*

1. The study of the perception of sound.
2. Psychological response to sound
3. Physiological impact of music and sound on the human nervous system.
4. The effect of music and sound on the human brain. Psychoacoustics looks at the effect of tonality, pitch, effects and placement of sound on the mind. Emotion is one of the main aspects addressed by this phenomenon.

Psychobiology *psy•cho•bi•ol•o•gy*
Pronunciation: *(s**I**"k**O**-b**I**-ol'u-j**E**)*

1. The use of biological methods to study normal and abnormal emotional and cognitive processes, as the anatomical basis of memory or neurochemical abnormalities in schizophrenia.
2. The branch of biology dealing with the relations or interactions between body and behavior, esp. as exhibited in the nervous system, receptors, effectors, or the like.

Psychoneuroimmunology *psy•cho•neu•ro•im•mu•nol•o•gy*
Pronunciation: *(s**I**'k**O**-nooro-im"yu-nol'u-j**E**)*

Medical term for the evolving field discipline which studies the interaction between the mind, body and the immune system in health and illness.

Psychospiritual *psy•cho•spir•it•u•al*
Pronunciation: *(s**I**'k**O**-spir'i-ch**OO**-ul)*

The interdependent aspects of mind, spirit and emotions.

Physioacoustic *phys•i•o•a•cous•tic*
Pronunciation: *(fiz"**E**-o- u-k**OO**'stik)*

A scientific method of applying low frequency stimulation to the human body in such a way as to obtain desired emotional or physical effects.

Pure Tone *pure tone* ***Pronunciation:*** *(pyoor) (t**O**n)*

A tone with no harmonics. All energy is concentrated at a single frequency.

Quantam Physics *quan•tum phys•ics*
Pronunciation: *(kwon'tum) (fiz'iks)*

1. Quantum physics demonstrates that everything is made up of vibratory fields. We have a physical body, emotions, mind, soul and spirit, each of which can be considered to be a vibratory field. Sound can cause different effects in each one of these fields. Some music stimulates our emotions or mind; some heals our body. Other vibrations breakdown our electromagnetic field, possibly leading to disease.
2. The branch of physics that studies the energetic characteristics of matter at the subatomic level.

Relaxation Response *re•lax•a•tion re•sponse*
Pronunciation: *(r**E**"lak-s**A**'shun), (ri-spons')*

1. A term coined by Dr. Herbert Benson referring to a relaxed, meditative state to which the mind/body can attune when applying the appropriate relaxation technique.
2. A mental or physical practice that can allow the mind and body to enter into a more relaxed state. This includes various techniques such as mantra repetition, progressive relaxation affirmations, and muscle contraction/relaxation approaches.

Resonance *res•o•nance* ***Pronunciation:*** *(rez'u-nuns)*

1. The phenomenon of sympathetic vibration between two similarly tuned oscillators e.g., the resonant vibration of two E strings of a violin. Resonance occurs at higher and lower harmonics as well i.e., middle C resonates with both high C and low C.
2. A natural periodicity, or the reinforcement associated with this periodicity.
3. Amp lification of the range of audibility of any source of speech sounds, esp. of phonation, by various couplings of the cavities of the mouth, nose, sinuses, larynx, pharynx, and upper thorax, and, to some extent, by the skeletal structure of the head and upper chest.
4. The distribution of amplitudes among interrelated cavities in the head, chest, and throat that are characteristic for a particular speech sound and relatively independent of variations in pitch.

Resonant frequency *res•o•nant fre•quen•cy*
Pronunciation: *(rez'u-nunt) (fr**E**'kwun-s**E**)*

Any system has a resonance at some particular frequency. At that frequency, even a slight amount of energy can cause the system to vibrate. A stretched piano string, when plucked, will vibrate for a while at a certain fundamental frequency. Plucked again, it will again vibrate at that same frequency. This is its natural or resonant frequency. While this is the basis of musical instruments, it is undesirable in music-reproducing instruments like audio equipment.

Resonate res•o•nate ***Pronunciation:*** (rez'*u*-n**A**t")

To re-sound. Something external sets something else in motion or vibrates it at the same rate.

Rhythm *rhythm* ***Pronunciation:*** *(rið'um)*

1. Controlled or periodic movement.
2. The pattern of regular or irregular pulses caused in music by the occurrence of strong and weak melodic and harmonic beats.
3. A particular form of this: *duple rhythm; triple rhythm.*

Sine wave *sine wave* ***Pronunciation:*** *(s**I**n) (w**A**v)*

A periodic wave related to simple harmonic motion.

Sonic *so•nic* ***Pronunciation:*** *('sä-nik)*

1. A sound are within the range of human hearing, technically 20 to 20,000 Hz.
2. Used, produced by, or relating to sound waves.

Sound *sound* ***Pronunciation:*** *(saUnd)*

3. A sensation perceived by the ear caused by the vibration of air or some other medium.
4. A vibrational disturbance, exciting hearing mechanisms, transmitted in a predictable manner determined by the medium through which it propagates. The audible hearing range of most humans is 20Hz to 20,000Hz.

Sound Attenuation *sound at•ten•u•a•tion*
Pronunciation: *(saUnd) (u-ten"y**OO**-**A**'shun)*

The reduction of the intensity of sound as it travels from the source to a receiving location. Sound absorption is often involved as, for instance, in a lined duct. Spherical spreading and scattering are other attenuation mechanisms.

Sound Spectrograph *sound spec•tro•graph*
Pronunciation: *(saUnd) (spek'tru-graf)*

An instrument that displays the time, level, and frequency of a signal.

Sound Therapy *sound ther•a•py* ***Pronunciation:*** *(saUnd) (ther'u-p**E**)*

Uses the principles of resonance, entrainment, and vibration to affect changes in the body, mind and spirit.

Sound Wave *sound wave* ***Pronunciation:*** *(saUnd) (w**A**v)*

Sound waves can be thought of like the waves in water. Frequency determines the length of the waves; amplitude or volume determines the height of the waves. At 20Hz, the wavelength is 56 feet long! These long waves give bass its penetrating ability, (why you can hear car boomers blocks away).

Spectrum *spec•trum* ***Pronunciation:*** *(spek'trum)*

A sound wave's resolution into its components of frequency and amplitude.

Standing Wave *stand•ing wave* ***Pronunciation:*** *(stan'ding) (w**A**v)*

A resonance condition in an enclosed space in which sound waves traveling in one direction interact with those traveling in the opposite direction, resulting in a stable condition.

Tempered Scale *tem•pered scale* ***Pronunciation:*** *(sk**A**l) (tem'purd)*

1. A musical term used in modern western music that utilizes twelve notes per octave with a constant frequency ratio between adjacent notes (the twelfth root of 2, or about 1.059).
2. A system for dividing an octave into 12 pitch steps, each of 100 cents.

Timbre *tim•bre* ***Pronunciation:*** *(tam'bur)*

1. Quality of a musical note or the particular character of sound, which enables us to distinguish between two sound notes of same frequency and intensity but produced by two different sounding bodies.
2. The quality of a sound determined by its partial structure, that is the relative frequencies and amplitudes of the various sinewaves which collectively make up that particular sound.
3. The texture of a note.
4. The quality of a sound that distinguishes one voice or instrument from another.
5. Tone color, sonority, quality.

Tone *tone* ***Pronunciation:*** *(t**O**n)*

1. A sound or sensation of a definite pitch.
2. The quality of a sound.

Tuning *tun•ing* ***Pronunciation:*** *(t**OO'**ning, ty**OO'**ning)*

Methods for assigning pitches to the twelve Western pitch names that constitute the octave.

Ultrasonic ul•tra•so•nic ***Pronunciation:*** *(uhl•truh• sä-nik)*

A frequency above the range of normal human hearing, i.e., 20,000 cycles per second (Hz.)

Vibration *vi•bra•tion* ***Pronunciation:*** *(v**I**-br**A**'shun)*

Motion, energy; oscillation; quiver; tremor.

Vibrational Medicine *vi•bra•tion•al med•i•cine*
Pronunciation: *(v**I**-br**A**'shu'nl) (med'u-sin)*

1. The healing philosophy, which aims to treat the whole person, i.e., mind/body/spirit complex, by delivering measured quanta of frequency-specific to the human multidimensional system.
2. Vibrational medicine seeks to heal the physical body by integrating and balancing the higher energetic systems which create the physical/cellular patterns of manifestation.
3. Healing through vibrations (frequencies).

Vibroacoustics *vibro•a•cous•tics*
Pronunciation: *(v**I**-br**O**'(u-k**OO**'stiks)*

1. The process of hearing sound vibrations through the body.
2. The use of sinusoidal, low frequency (30 - 120 Hz), sound pressure waves, blended with music, for therapeutic use.

Vibrotactile *vibro•tac•tile* ***Pronunciation:*** *(v**I**-br**O**'tak'til, -t**I**l)*

Mechanical instruments that help people feel and interpret sound through the sense of touch, predominantly used for people who are hearing impaired.

Wavelength *wave•length* ***Pronunciation:*** *(w**A**v'lengkth)*

1. The distance between two identical points on a waveform i.e. one cycle of the waveform, or the spatial distance between two identical points of an electromagnetic or sound pressure wave which have the same phase. In high frequency waves, there are more cycles in a given unit of time than there are in low frequency waves, this means they are closer together and consequently the wavelength of a high frequency is shorter than that of a low frequency.
2. The wavelength of a given frequency can be determined by dividing the speed of propagation of the wave by its frequency.