

# **Singing bowls – why their use is beneficial for the organism.**

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## ***Sound of the singing bowls***

Sound, vibrations, as well as touch was used for therapeutic purposes since the ancient times, and a massage is probably one of the oldest forms of therapy.

The singing bowls were known since the oldest times in variety of cultures, mainly Far East (i.e. Japan, India, China or Thailand). They were known also in Europe. They were used to perform varied functions – from mundane to ritualistic and therapeutic. Presently the singing bowls, for the therapeutic purposes are manufactured, based on traditional technologies, retaining faithful alloy composition and repeatability of the acoustic parameters. For example, some of the singing bowls used in Europe are produced from 12 metal alloy. Particular technology – particular alloy, many hours of hand forging with particular thermal treatment, decide on their sound. [1,2]

The singing bowls from the acoustic point of view, emit the sound that is called a non-harmonic multi-tone. This multi-tone, is composed of the frequencies, that are not a mathematical multiplications of the base frequency. Most of the non-harmonic multi-tones sound unpleasant to the ear. They for example are created when the hammer hits the pipe, or rail. However among many varieties of such multi-tones, there are those, which have pleasant sound. Those are the non-harmonic multi-tones of the Himalayan singing bowls used in the sound therapy.

The secret of the singing bowls sound lays in the frequency components of this multi-tone. Mainly this is to do with the fact the components of the multi-tone of the bowls form specific groups of spectral acoustic bands. These are typically pairs, triads or more often groups of tones of frequencies varying by a small degree.[6,9] Beating of the components of those groups cause the characteristic, subtle vibration, which pervade the whole organism.

Properly selected in the manufacturing process componential frequencies of the multi-tone of the bowls used for therapy, cause that the frequencies and in particular the frequencies of the binaural beats are well suited to the organism. Multi-tone of the bowl, acts as a stimulant on the body, because it is tuned to its resonant frequency [3,12] and the frequency of certain biorhythms. In particular the short-term biorhythms (e.g. cerebral rhythms, heart rate, respiratory rhythm) lasting from the fraction of the second to several seconds [6]. Furthermore important role is played by the characteristic intervals between different groups of the sound spectral bands. [4]

The sound of the singing bowl is fully within the acoustic range. Only small bowls caused to vibrate with metallic or hardwood mallet, may produce the ultrasounds (frequencies over 20kHz). Typical bowls do not emit the infrasound, or the inaudible sounds. However the frequency of the binaural beats of the bowl sound, is relative to the sounds below the human hearing range or the infrasound. Our body has a specific predisposition, namely it has the ability to assemble the elements of the inaudible sounds which are outside our hearing range and are not directly present in the sound of the bowls. It is this inaudible sound arising within us that begins to stimulate the vibration of various structures. Therefore those binaural beats being the essence of the bowls sound, are important in the therapy, equally to the level of main tonal components of their multi-tone.

### ***The main application of the singing bowls.***

Sounds of the singing bowls and their vibration work completely on the body, mind and spirit, harmonising the entire psychosomatic human constitution. At the present time, when on one hand we are very busy and yet we still lack time, on the other we hunger after the sense of security and positive feelings, we can use the bowl to achieve a better frame of mind. This sound allows to relieve stress. You feel alive and refreshed. Feel more energetic, with energy to work and play.

Sound of the singing bowls strengthens, and allows to alleviate the negative patterns of thinking. We acquire a greater distance to the various issues, worries or problems. Become more confident, more resilient to negative external influences, take courage to be ourselves. Influenced by sounds of the bowls we can discover the specific artistic skills, and stimulate creative inspiration.

Sounds and vibrations of the singing bowls in particular, help reduce muscle tension, also improve blood circulation and regulates the circulation of body fluids (6.9]. Massage with singing bowls, and even just listening to the sound of the bowls at close distance has its applications in cosmetics and rejuvenation. Bowls therapy may help Parkinson's disease or multiple sclerosis. [5] It is a wonderful way of working with children overactive, autistic [8], with cerebral palsy [10], as well as other forms of disability.

Resounding, therefore vibrating bowl on the body supports the rehabilitation and other treatments. It promotes bone regeneration, especially while applying it together with altering magnetic fields. This was confirmed by the authors experience. Vibrations and sounds of singing bowls cleanse your body of toxins, also removing various mental or energetic blockages. They help you to feel your body more noticeably and, in consequence fully accept it.

A short concert with singing bowls may be used as introduction to the visualisation training, autogenic training or other. It's a good method to aid psychotherapy [7], to ease

the pain, or to prepare for surgery. Multi-tones of the bowls help move from active to a state of relaxation. In a situation where the patient is relaxed, the therapist can more easily get to the bottom of his problems, activate the repair process and encourage cooperation. The patient begins to speak freely about their problems, and increases the chance of starting the process of self-healing in the body. Specific beat components of the multi-tones allow to achieve relatively easily, meditative states in people who do not practice meditation, or have had sporadic contact with it.

### ***Education, or business as other application areas***

Among respondents from different age groups, in education we observed easing of tension and calming of emotion to the sounds of the singing bowls. Increasing the tendency to cooperate, reduced aggression - even after influence of only few strokes. There was also an increase in concentration, memory and a broader view of the task. For example, one group of people have had to perform an exercise, the project without sound, the second with sound of singing bowls and the third with the "relaxation" music. There was a clear reduction in execution time under the influence of singing bowls and this group created a few more solution options.

In business sound of the singing bowl can be used in assisting the negotiation process, sales or team communication. Also in communication with customer, dealing with complaints (e.g. post-warranty service). This sound makes the stress go down, the conversation begins to take place rationally, in partnership. Also for managers working in constant stress singing bowl can help to defuse tension, or extend the term of effective work.

### ***End note.***

The authors studied a significant number of various singing bowls used for sound therapy. The analysis developed and carried out by them for many years with aid of copyrighted software allows to indicate the bowls suitable for use in the therapy very accurately. A relatively small dispersion of intervals between groups of spectral bands in all groups of bowls stood out in most measurements. At the same time the sound envelope of these bowls have at least several components that match the relevant body biorhythms frequency or resonance with its structure. The new generation of therapeutic bowls marked with Peter Hess ® Products are currently under investigation.

The size of intervals and the spectrum envelope is significantly responsible for the nature of sound and vibration affect of the singing bowls on the body. Therefore, the bowls used for therapeutic purposes should hold a relevant certificate confirming their quality. Not only therapeutic singing bowls produce non-harmonic multi-tones with groups of spectral bands, but also many other metal bowls, and even cookware. Different composition of the material, and especially the implementation of particular technology -

cheap mass production processes (stamping, spinning) instead of hand-forging can cause a different distribution of spectral bands than for certified bowls used in therapy. Likewise with a mechanically damaged bowl (including therapeutic). This can give unpredictable results, not necessarily beneficial in therapy. Harmful effects may also appear, as with the exposure to noise and vibration in industry. This does not mean that it's not possible to choose among many everyday items the object that will be useful in therapy. However, it requires a very wide knowledge, intuition, and performing relevant analysis of the sound spectrum as well as spectrum envelope of such an object. Therefore, in order not to risk health of the patient / client and your reputation it is better to use in the treatment only the certified singing bowls.

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