WHAT IS VIBROACOUSTIC THERAPY?

Vibroacoustic Therapy combines the physical vibrations of relaxing music with the vibrations of Pulsed Low Frequency Sine Tones. It was first developed in the 1980's by the Norwegian teacher, Olav Skille. He explored the use of Vibroacoustic stimulation for severely disabled children with whom he worked, by playing them music through large speakers pressed against a beanbag on which the children were lying. Skille discovered that the physical vibrations of sound could relax and stimulate the children and judging that bass frequencies had a particularly significant therapeutic effect, he combined the music with a pulsed low frequency sine tone. (A Sine Tone is a pure harmonic, without upper partials.)

Skille experimented extensively with Vibroacoustic Therapy and documented his findings in various published works, the largest being his *Manual of Vibroacoustics* (1991). He found that Vibracoustic Therapy was beneficial for a variety of medical conditions and symptoms including asthma, autism, cystic fibrosis, cerebral palsy, constipation, insomnia, pain and Parkinson's Disease (Skille, 1991). Skille described the effect of Vibroacoustic Therapy as being divided into three main areas:

- A spasmolytic and muscle-relaxing effect
- An increase in blood circulation in the extremities
- Marked, but varying effects on the vegetative system

Vibroacoustic Therapy is now practised in many different countries, and research has established it as a useful therapeutic treatment for many conditions. The process of giving Vibroacoustic Therapy involves the use of recorded music, played through an amplifier and delivered to the body via a Vibroacoustic bed or chair – usually a bed or chair with speakers underneath the surface. The physical vibrations of both the music and the low frequency sine tone are felt in the body and, as Skille wrote, the body receives an 'internal massage'. It is this 'internal massage' which is thought to have the therapeutic benefit.

The two elements of Vibracoustic Therapy, music and low frequency sound, both have a theoretical basis. Several studies have found that music without sudden harmonic, dynamic or tempo changes is calming and relaxing (Smith and Morris, 1976, Hodges, 1980). In 1968 Skille and Juliette Alvin defined three universal principles which form the basis of selecting music for Vibroacoustic Therapy.

- High frequencies create tension, low frequencies reduce tension (or assist relaxation).
- Sedative music aids relaxation both mentally and physically.
- Rhythmical music can invigorate, non-rythmical music can pacify.

Other research has shown that music is an effective pain relieving intervention for certain medical conditions (Spintge, 1993, Standley, 1995).

Vibration has been used as a tool in physiotherapy. Eklund and Hagbarth (1966) found that vibration can enhance or reduce voluntary power and range of movement in spastic clients. Low frequency sound causes more perceptible physical vibration than higher frequencies.

Wigram's (1997a) study *The Effect of VA therapy on Multiply Handicapped Adults with High Muscle Tone and Spasticity* showed that the combination of music and a low frequency sine tone was more effective in reducing high muscle tone than music alone.

It was Wigram, a Music Therapist, who developed the practice of Vibracoustic Therapy in Britain at Harperbury Hospital in Hertfordshire. His practice and research centred around people with special needs, and also includes research concerning Vibroacoustic Therapy as a treatment to reduce self-injurous behaviour and anxiety, as well as case studies of using Vibroacoustic Therapy with girls with Retts Syndrome (1997a, 1993, 1997b). Wigram established a Department of Vibroacoustic Therapy at Harperbury Hospital (Hertfordshire Partnership NHS Trust). The Vibroacoustic Therapy Service treats clients with special needs for a variety of conditions and also hires out equipment for use in the community.

In the USA Butler (1997) studied patients undergoing open heart surgery, and found that the post-operative use of Vibroacoustic Therapy significantly reduced the time over which patients required respiration on a ventilator in the Coronary Care Unit. The overall length of hospital stay was decreased from 9 days to 5 days.

Equipment needed to give Vibroacoustic Therapy:

- Vibroacoustic unit, such as Soundchair, Soundbed or Soundbox
- Twin CD player / mixer, amplifier, ancillary self-powered speakers.
- Low Frequency Sine Tone CD's & Music CD's

This brief introduction is supplemented by other leaflets produced by The Soundbeam Project. Leaflets giving details of the research evidence for Vibroacoustic Therapy for pain, special needs and Parkinson's Disease are available, as well as a list of contraindications to vibroacoustic therapy.

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This leaflet is published by The Soundbeam Project.
TSP produce vibrotactile equipment suitable for giving Vibroacoustic therapy.

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