Clinical Studies have shown vibroacoutic therapy to be effective in treating:

Aphasia	Low Back Pain	Pre-menstrual
Asthma	Menstrual Pain	Pressure Ulcers
Blood Circulation	Metachromatic Leucodystrophy	Rett Syndrome
Blood Pressure	Morbus Bechterew	Rheumatism
Brain Stroke	Multiple Sclerosis	Spastic Conditions
Cerebral Palsy	Muscle Cramps	Stress
Cystic Fibrosis	Neck and Shoulder Pains	Varicose Veins
Emphysema	Edema	
Fibromyalgia	Parkinsonism	
Insomnia	Polyarthritis	

What is Vibroacoustic Music?

Vibroacoustics-from vibro-to *vibrate*-and acoustics---to *hear*-is an innovative technology in which music and/or sound vibrations are *felt* as well as *heard*. The sound vibrations are administered through specially-designed speakers or transducers built into a recliner, bean bag chair, mattress, pad, table or other equipment-even a floor and wall! There are numerous benefits to health and well-being from the experience of feeling the sound vibrations as you relax onto vibroacoustic equipment.

Vibroacoustic technology has experienced widespread use in hospitals, healthcare facilities, wellness programs, education, and corporate organizations as well as being used extensively in private settings. Vibroacoustic technologies were first developed in Scandinavia between 1970 and 1980 independently by Olav Skille and Petri Lehikoinen.

What are the benefits of vibroacoustic technology?
Research and clinical programs have reported that vibroacoustics provides a wide variety of mental and physical benefits. Vibroacoustics has been found to:

- reduce stress
- facilitate the Relaxation Response

- decrease the experience of pain
- reduce nausea, headache, anxiety, fatigue and depression
- calm and soothe restless behavior
- relax muscular hyper-tauticity
- improve range of motion
- promote muscle tone
- lower blood pressure
- stimulate lymphatic flow

Research has provided clear data on these outcomes of vibroacoustics but there are other effects that have not yet been quantified or perhaps even identified. Scientific research continues to investigate the effects that vibroacoustics have on body chemistry, brain wave frequencies, pain suppression, and a number of other responses. This research will bring a greater understanding of the effects of sound vibration.

How does it work?

The physical experience of sound vibrations combined with the use of calming music in vibroacoustic therapy has beneficial effects both physically and psychologically. The mechanisms behind these effects are not fully understood although it is clear that the vibroacoustic music experience triggers the Relaxation Response, a mind/body response with a myriad of positive health benefits.

Olaf Skille, one of the original creators of vibroacoustic technology, presents a theory that builds on the work of Drs. Karel and Heda Jindrak exploring the concept that physical vibrations of sound provide an internal cleansing massage. This stimulation may help eliminate cellular wastes and assist in cleansing the body of these and other toxins. Research has also demonstrated that vibroacoustics can work within the effective range of a vibration-induced, natural pain-suppressing mechanism of the Pacinian Corpuscles, pressure-sensitive nerve endings located in the subcutaneous and connective tissues surrounding visceral organs and joints. Kris Chesky, Director of Education and Research of the Texas Center for Music and Medicine at the University of North Texas, conducted research and correlated information about this natural process and vibroacoustics, reinforcing the concept that vibroacoustics can trigger this pain-mediating mechanism.

The Relaxation Response

A primary outcome of the vibroacoustic music experience is the facilitation of a state of deep relaxation. Triggered by what is called the Relaxation Response, this mental, physical, and emotional state is characterized by lowered blood pressure decreased heart, breathing, and metabolic rates and mind/body coherence. Harvard professor Dr. Herbert Benson, the founder of the Mind/Body Medical Institute at Boston's Deaconess Hospital, coined this term. He found that the Relaxation Response yields many long-term health benefits in addition to the immediate effects created during the experience. The relaxing effect of music alone is well-known and used extensively in music therapy. The combination of relaxing physical vibration and soothing music is a dynamic method to trigger the natural healing mechanisms of our body!

What does the Relaxation Response do?

You can trigger the Relaxation Response in many ways. Tai Chi, meditation, prayer and Yoga are among the numerous wellness modalities known to facilitate relaxation. Regardless of the method used, the physical and mental changes are similar. When the mind becomes focused and free from intrusive, worrisome or anxiety-laden thoughts, the autonomic nervous system responds by stabilizing and down-regulating (slowing down) the heart rate, blood pressure and breath as well as relaxing muscle tone and reducing the production of stress hormones. Physiologically, the relaxation response initiates the following changes:

· reduces oxygen consumption (hypometabolism)
· decreases blood pressure
· slows heart rate
· slows respiration rate
· relaxes muscles
Mentally, deep relaxation:

· changes brain wave frequencies (generally slowing from beta to theta/delta)
· clears the mind from anxiety
· creates a feeling of calm and peacefulness
A particularly positive side effect of using vibroacoustics to get into the relaxation response is a long term benefit---the more people use this technology the more they learn to recognize the state of relaxation and, over time, become able to reach relaxation at will. Vibroacoustics is a great way to learn how to relax and develop relaxation as a daily habit!

Clinically Proven Non-Pharmacological Pain & Anxiety Management Tool

In a program at the Clinical Center of the National Institutes of Health (NIH), researchers attained more than 50% reduction of pain and other symptoms using vibroacoustic technology. A program evaluation study, published in 1999, revealed a reduction of pain and other symptoms between 49% and 59% at the NIH. Because of this success, the vibroacoustic program has been an ongoing patient and family treatment offering at the NIH for over eight years and continues to obtain these effective results. The NIH evaluation monitored pain and symptoms in 267 patients hospitalized for a variety of illnesses including cancer and cardiac-related issues. The chart below shows pain and other symptom reduction percentages from this study.

Symptom Change from a Single Vibroacoustic Session - National Institutes of Health

% Reduction	Symptom
54.00 reduction of--	Tension
47.36 reduction of--	Fatigue
53.33 reduction of--	Pain
57.54 reduction of--	Headache
49.45 reduction of--	Depression
56.27 reduction of--	Nausea
56.27 reduction of--	Other

This program has been in continuous use since the pilot program began and results continue to be consistent with the initial findings. The program is facilitated by recreation therapists under the guidance of Dr. George Patrick, Chief of recreation therapy in the Rehabilitation Medicine Department. A follow-up pilot program was conducted by Chris Boyd Brewer at Jupiter Medical Center, Jupiter, Florida. Using vibroacoustic technology in the Foshay Cancer Center, a replication of the NIH study was completed using data from 41 patients. This study intended to determine if a busy nursing staff could administer the vibroacoustic pain and anxiety management program and attain the same significant results as the NIH. Data collection was accomplished primarily by the

nursing staff. Results of this pilot program were equal in success to that of the NIH and confirmed that, if set up appropriately, medical center facilities could develop and manage a successful vibroacoustic pain and anxiety management program.

Program Benefits

· is a non-drug, non-invasive approach to pain and anxiety management with no unwanted side effects
· addresses both the physical and psychological aspects of pain
· reduces anxiety as it lessens pain
· is a one-time, cost-effective, capital expense
· is research-based and has been evaluated at the National Institutes of Health in the Clinical Center
· has demonstrated results of over 50% reduction of pain and anxiety
· assists in demonstrating effectiveness in pain management

About Anxiety and Tension (Stress) Reduction

Anxiety and tension are common side effects of illness and disease that patients frequently identify and medical personnel must constantly address. Research demonstrates that high anxiety levels inhibit the healing process and perhaps increase susceptibility to cardiac and immunological disorders, among other health problems.

Tension, reported by patients also as anxiety and stress, was one of the symptoms most frequently identified in the NIH vibroacoustic study of pain and symptom reduction. Among the patients who identified tension as a primary symptom, an average of 54% reduction was reported from a single vibroacoustic session. The study also measured patients' state of tension-relaxation using an additional self-report tool. All 267 patients used this scale and indicated that their tension symptom was reduced by 53.4% overall. With clinical results demonstrating a one-half reduction of tension in a single session, vibroacoustics clearly provides a significant method for handling tension without drugs or negative side-effects.