POSITIVE INFLUENCE OF VIBRATIONS AND SOUND ON THE HUMAN BODY
A person and mechanical oscillations

Basis of work of a human body - oscillations:

- external: oscillatory motion of the legs, trunks, hands and head when walking;
- internal organs: oscillations of heart, the lungs, pulsing waves of arteries and capillaries;
- oscillatory motion of blood, nutrients, removal of slags, supply of oxygen and removal of carbon dioxide;
- distribution of oscillations to internal organs and fabrics;
- oscillatory nature of chemical processes in an organism.

Mechanical oscillations provide a life to a human body.

Oscillations support a normal mode of functioning of a human body and can cure it of various ailments.

Oscillations are necessary to person every day, every second.
Types of oscillations in a person

The oscillations in the human organism:
- regular: the heart, lungs, pulsating waves of arteries and capillaries, etc. These oscillations are specified commands of the brain and spinal cord.
- temporary: walking, eating, swimming, and other physiological actions. These oscillations also are set by commands of the brain and spinal cord.
- External inflow of oscillations (through mechanical influences and sound).
- Biophysical processes. These processes are intensified under the influence of mechanical oscillations of various origins in the body of the person (from internal and external sources.)
Vibrations in the ancient time

All most ancient doctrines of terrestrial civilizations contain approval and accumulated millennia experience of the positive impact of oscillations (including audio) on humans, animals and plants.

Primitive people used the positive influence of oscillations on the human body. However, the information about it has reached us in a very abridged and distorted form.

Primitive people already knew how to use the power of sound for the treatment of illnesses. Shamans widely applied rhythmic sound of big tambourine. Mantra of the Indian yogis works wonders. At the correct their application it is possible to heal the sick, strengthen the nervous system, to influence on surrounding world and to change the course of events.
Vortex energy and a person

From ancient myths follows that at interaction of a whirlwind and a human body (or body parts), the last can get more energy.
Hydromassage and water whirlwinds

Controllable hydroaeromassage allows professionals purposefully carry out not only the superficial massage, but also deep massage of the organs and tissues of the body. It occurs thanks to the oscillating wave, which is distributed in the tissue. Thus, there is stimulation of reflex zones, deep dynamic massage soft tissues and blood vessels, which leads to rapid expansion of capillaries.

The technique of hydrotherapy is defined also by water temperature and by medical-improving components containing in it (bathing salts, аэрофитоны, infusions and broths of herbs and others).

Vortex underwater massage

It is hydrotherapeutical procedures at which the temperature and hydrostatic water stimuli amplified its monotonous movement in the bath - a twist. Such massage is prescribed to strengthen the abdominal muscles, perineum, trunk, limbs and so on. Vortical massage is prescribe at injuries of the musculoskeletal system. The most favorable effect they provide patients with expressed pain syndrome.

In practice, are applied the general vortical baths and local - to the limbs. In baths for limbs are prevails the turbine type of baths, which allows you to use a volume of water and pressure of the jet.
The influence of vibration on the human

As it is known in the human organism, there are certain frequencies at which his organs are running: the heart has its own frequency, kidney, liver and stomach too, etc.

Besides its own (resonance) oscillations, there are third-party oscillations, which have a different impact on people.

This influence depends on whether it involved the whole body or part, from frequency, force and duration and etc.
The influence of vibration on the human

At low intensity, short term of exposure and the right choice of frequency, oscillations have a positive effect.

Local low-intensity vibration can have a positive impact on the human body, improve the functional status of the central nervous system, accelerate wound healing, etc.

It is established experimentally that the mechanical vibration excites nerves, which lost of function, and, conversely, quiets too excited. Short-term daily use of vibration promotes increase muscles strength, increase of their working capacity, improvement of blood supply of working muscles.

Degree of influence of hardware vibration on the body depends on the frequency and amplitude of oscillations and from duration of influence.
Application of vibrations

The positive influence of small doses of vibration is widely used in medicine in the form of massage.

Small doses of vibration improve work of the central nervous system, work of internal organs, improve mobility of the neuromuscular system, increase metabolism in tissues.

It occurs because moderate vibration at the expense of small mechanical displacement of organs and biological tissues, promotes improvement of their blood circulation, stimulates the nerve centers.
Application of vibrations

- hand massage
- massage Belt
- manually massager
- vibration platform
- massage chairs
- Hydromassage bath for the feet
Disadvantages of massagers

The mechanism of influence of mechanical vibration on the human body is poorly studied and Massagers remain at primitive level. Therefore, all existing massagers have several disadvantages:

- The vibrations have only a local influence;
- When the frequencies are picked incorrectly up, they have a negative effect on the person.

At high intensity and duration, vibration has a dangerous effect on the individual organs and a human body as a whole, disrupting the normal functioning of the nervous system and organs related to metabolism.

Vibration can cause disturbances of activity of cardiovascular and respiratory bodies, diseases of hands and joints. Long vibration can even lead to death.
The influence of music on the human

In music laid a huge potential for improvement owing to impact on many spheres of life through three main factors: vibrating, physiological and psychological.

In the Tibetan medicine it is accepted to combine sound therapy with massage. Proponents of this method of treatment has recently started using the Tibetan "singing" bowl. These bowls are made from metal alloys. As a result, these bowls, used in Tibet for meditations, allow you to extract the amazing sounds that can not be heard from any other musical instruments.

When using these "singing" bowls, them establish on the patient, and then by means of the pine or palisander sticks trying to extract the sounds. These manipulations lead to the appearance of vibrations. These vibrations, in turn, through organs of hearing affect on the patient's internal organs. The positive impact of the sound waves on the body of people already proved scientifically.
Sound cabin

One of main "elements" of a practical audiology is the cabin of the increased sound insulation of air noise, with acoustic processing of internal surfaces which creates the necessary conditions for work of doctor and enough comfort for the patient, and also conditions for correct operation of special medical devices and the equipment.

Built on certain technological requirements (in accordance with the recommendations and standards of acceptable noise, ANSI, etc.) the acoustic cabin allows to reduce the external noises to a level, perceived by ear as "absolute" silence.
The advantages of soundproof booths:

- Creating a controlled acoustic environment.
- Warranty of acoustic efficiency at carrying out surveys.
- Increased levels of noise absorption.
- Optimal conditions for carrying out audiometric research in booths, at the expense of use of high-quality acoustic panels.
Any acoustic cabin of the increased sound insulation of the air noise, intended for the medical purposes has to correspond to a number of technical and sanitary requirements:

1. Cabin must be performed by the method of "room In the Room" on vibroprotection platform.
2. The door to the transitional vestibule has to be the increased sound insulation of air noise (Rw not less than 27 dBA) with tightly sealed around the contour of the canvas.
3. The walls, floor and ceiling of the cabin of increased sound insulation of air noise performed not in parallel, with the acoustic processing of internal surfaces.
4. The door in a cabin – has to be the increased sound insulation from air noise (Rw not less than 27 dBA) with tightly sealed around the contour of the canvas.
5. Silent ventilation, forced-air and exhaust, with the conditioning, which are include in a cabin, with noise suppression (on an entrance and at the exit) and dust filters on an entrance.
6. Silent working lights, which isn't creating "interference" on electronic measuring equipment.
7. The floor covering should be made of materials with antistatic properties and must be grounded to prevent static electricity on the surface.
8. Separate grounding circuit for appliances and equipment.
9. Materials must have a certificate of conformity and meet sanitary and safety requirements for medical institutions.
Current knowledge about the interaction of oscillations and human

- it is known that in a human body there are a lot of vibration and it is better to move than to lead a sedentary life;
- different tunes (from ancient times to modern music) have a positive effect on the person;
- different types of massages also have a positive impact on the body.

But there remains little studied mechanism of the effect of mechanical vibrations and music on the human body.

There is not full atlas of frequencies, influencing various parts of a body and passage of physiological processes.
Our KNOW-HOW

We know:

1. hydro-aerodynamics of movement of liquids and gases at oscillation (about this field of study to scientists little is known);

2. ways of creation of a vortex motion as outside the body and inside it (these effects are based on the opened by us a vortex - oscillatory effect);

3. flexural oscillations for the general case;

4. new types of forces that can arise inside the human body during vibration.
Our offers

We want to create new devices for further development of positive impact on the person.

**We will lean:**
- on knowledge of an antiquity;
- on the results received by modern scientists;
- on the received by us knowledge on oscillatory aero hydrodynamics and oscillatory systems.
Upgraded Tibetan singing bowl

Thanks to the wealth of overtones and harmonious sounding, singing bowls create the conditions for deep relaxation. When singing bowls are placed on the body, they produce a soft and deep massage.

Massage by singing bowls gives improving effect at such problems as the chronic strain in a neck and shoulders, headaches, digestion problems, menstrual pains, is used in obstetrics, promotes deeper breathing, improves concentration, especially in hyperactive children.
The sound of the Tibetan singing bowls consists of limitless stream of overtones which form the sound spirals rotating around a "valid" (the main, which can be heard) sound.

At the heart of such interaction of overtones the wave principle lies: two audio streams meet, form a standing wave, and dissolve in the "ocean" sounds.

In contrast to the mechanical repetition, typical for minimalism here every such meeting - it is a separate, unique event, every little bit, almost imperceptibly different from the rest. The transparent, rich overtones sounding singing bowls - fine energetically saturated music for meditation and healing.
Air swirl with the person inside, and with sound accompaniment

In sound cabin, offered by us, will be sound a certain melody in conjunction with cyclonic air movement around the person.

Simultaneous exposure on the person of salutary music and gentle air massage.
Vibroplatform of a new type

Platform, which carry out flexural-torsional oscillations of all body or its parts.
Swinging statue of Buddha with sound accompaniment

Our model of the statue will rock and will utter melodious sounds. The statue is intended to reassure people after work (for disconnection from heavy psychological and environmental conditions of stay in the workplace and on the streets).
Contacts

Dr. Evgeny Sorokodum, President and CEO
"Vortex oscillation technology Ltd"
Moscow, Russia
Mob. phone: +7(903)-184-04-07
skype: esorokodum
e-mail: esorokodum@dol.ru
website: www.vortexosc.com