The role of sound vibrations and especially their electronic copies in the formation of optimal homeostasis N. Kempe (IBBU, Institute for Biosensorics and Bioenergetic Environmental Research Wednesday, Liboch, Austria)

In a very rapidly developing energy-informational medicine, a wide variety of electromagnetic oscillations in a very wide spectrum of frequencies are mainly used as a carrier of control information - from fractions of Hertz to Terrahertz of hard radioactive radiation. But in our world there are also sound (acoustic) vibrations, which by their physical nature differ from electromagnetic vibrations. Acoustic vibrations are understood as uniformly propagating vibrations of the density of elastic media, including air. The characteristic, nature and impact of acoustic vibrations, their classification is a very complex science. But for our purposes, consider a simplified version.

Noise - randomly occurring groups of acoustic vibrations in a wide range, having an aperiodic character.

Sound vibrations of ordered spectra:

- infrasound (frequencies below 20 Hz);
- audible sound (20–20,000 Hz);
- ultrasound (from 20,000 Hz and above);
- hypersound (from 10nine to 1012-teneighteen Hz).

If the first categories are more or less familiar to us and even understandable, then hypersound is a somewhat new concept, still little studied, but promising a lot both in understanding complex neurobiological processes in general, and especially in the field of processes that are important for our work in the body. a person during bioresonance therapy.

The main difference between acoustic vibrations of the first three types from electromagnetic ones is that acoustic vibrations are always associated with the movement of material macro-objects, and electromagnetic vibrations in their essence are the field characteristics of space. Hypersonic vibrations are associated with vibrations of microparticles, and their characteristics are completely different from the characteristics of classical sound vibrations.

Infrasound (frequencies below 20 Hz)

The overwhelming majority of modern people do not hear acoustic vibrations with a frequency below 40 Hz. Infrasound can instill in a person such feelings as melancholy, panic, feeling of coldness, anxiety, trembling in the spine. People exposed to infrasound experience approximately the same sensations as when visiting places where encounters with ghosts took place. Getting into resonance with human biorhythms, infrasound of especially high intensity can cause instant death.

Infrasound can "shift" the tuning frequencies of internal organs,

since the resonance frequencies of most human and animal organs are in the infrasound range, for example: 20-30 Hz - head, 40-100 Hz - eyes, 0.5-13 Hz - vestibular apparatus, 2-6 Hz - heart, 2-3 Hz - stomach, 2-4 Hz - intestines, 4-8 Hz - abdominal cavity, 6-8 Hz - kidneys, 2-5 Hz - arms, 6 Hz - spine, etc. All known brain rhythms are located in the infrasonic region. When the frequencies of the internal organs and infrasound coincide, the corresponding organs begin to vibrate, which can be accompanied by strong painful sensations. There are many experiments on the study of bioeffectiveness for humans at frequencies of 0.05–0.06 Hz, 0.1–0.3 Hz, 80 Hz and 300 Hz. When exposed to these frequencies, a wide variety of dysfunctions arose: a noticeable increase in the lower limit of blood pressure, changes in the rhythm of heart contractions and respiration, functions of vision and hearing, increased fatigue and other disorders were recorded. Very serious studies in France and England on the effects of infrasound on the physical and mental state of people have been carried out.

Infrasound in the atmosphere can be both the result of seismic vibrations and actively influence them. In the nature of the exchange of vibrational energy between the lithosphere and the atmosphere, the processes of preparation of large earthquakes can manifest themselves.

A short acoustic effect of high intensity changes the nature of infrasonic vibrations in the atmosphere for a long time. Reaching ionospheric heights, infrasonic oscillations affect ionospheric electric currents and lead to changes in the geomagnetic field.

It is possible that the observed negative effect on living organisms of wind sources of electrical energy is explained by the presence of sounds in the infrasonic range at the location of the wind turbines. According to modern concepts of science, adaptation to the effects of infrasound in humans and animals is not possible.

Audible Sound (20-20,000 Hz)

In this range of acoustic signals, let us consider the most important part of it, which plays an invaluable role in the life of all living things - music. Music is a powerful force in evolution, which in its essence has both positive and, equally strongly, negative effects. To a great extent, this is a factor that sets the direction of the development of civilization. The ancient Greek philosopher Aristotle (384–322 BC) said: "You should always beware of introducing a new type of music, as a possible danger to the entire state, since a change in the style of music affects the most important aspects of the political order." And here is Pythagoras: "Music is the greatest power. She can make a person love and hate, forgive and kill. "

The musical structure is based on frequency. The science of cymatics, which studies the visualization of sound and vibration, proves that frequency and vibration are the master keys and organizational basis for the creation of all matter and life on this planet. In musical history, the note "A" with a frequency of 432 Hz has always been used to tune musical instruments. Discovered ancients Egyptian instruments were tuned to 432 Hz. The tuning of 432 Hz existed in antiquity, starting from Plato, Hippocrates, Aristotle, Pythagoras and other great thinkers and philosophers who, as you know, possessed invaluable knowledge about the healing effects of music on humans and cured many people with the power of music. The greatest violin maker of all time, Antonio Stradivari (1644–1737), created his masterpieces in the 432 Hz tuning.

At the present stage of development of society, the tuning frequency of 440 Hz is used, which is an international standard. Studies have shown the negative impact of this frequency on the development of the brain in humans and especially children and young people. In this case, not only the effect of destructive frequencies plays an important role, but also the prolonged absence of "divine" sounds.

In reality, the situation is much more complicated, since the strength of the impact of destructive frequencies depends on many factors, including the spectrum of the acting sound (number of octaves, timbre, amplitude, duration, simultaneous lighting, etc.). I have been dealing with these problems for over a year and a half and here are the first results.

On the selected subjects, a control measurement was carried out using the method of segmental diagnostics and a number of parameters using the ART method "IMEDIS-TEST" at the first level, then a piece by Mozart was played, performed by an orchestra with instruments tuned to a frequency of 440 Hz for 7-10 minutes. Then the measurements were repeated again.

Result:

- the instability factor for all has risen by 5–15 units, a number of brain signals that have not been tested before are beginning to be tested;

- the degree of psychosomatic load increases by 1–2 steps;
- the stress factor increases;

- the reserves of adaptation are decreasing;

- new dysfunctions (individually different) are revealed in different areas of the body, almost all C1-3 dysfunctions in the region of the cervical vertebrae increase to pathological values

- almost all of them are beginning to test the indication of "Negative Programs 2";

- some of the parameters of DNA change for the worse in everyone, especially the function of impaired DNA repair and a number of factors for assessing intracellular functions and intercellular interaction are tested;

- the balance of the sympathetic and parasympathetic state is disturbed. These facts were noted within 5 days by 27 subjects aged 11 to 90 years. At the same time, changes in the Earth's magnetic field and cosmic radiation were small. The negative impact appeared stronger in younger subjects.

Further, compensatory treatment was carried out, and the experiment was repeated again, namely: the same piece of music was played again at the same amplitude (loudness), but performed by an orchestra with instruments tuned to a frequency of 432 Hz. The test result was completely different, although very individual. Typical was the unloading of various brain parameters, a significant decrease in the instability factor (as a rule, even below the control values), the indication of "Negative Programs 2" disappeared, and psychosocial loads decreased.

In addition to this experiment, I made sporadic measurements just during the reception where it was possible and appropriate (more than 100 cases).

Later, on a variety of patients, I tested the effect of seven frequencies, namely: solfeggio frequencies:

"Do" 396 Hz - release from feelings of guilt and fear;

"Re" 417 Hz - neutralization of situations and assistance to changes;

"Mi" 528 Hz - transformation and miracles (DNA restoration); "Fa" 639

Hz - connection and relationships;

"Salt" 741 Hz - awakening intuition; "La" 852 Hz -

return to spiritual order.

And the frequency 432 Hz from the ancient solfeggio, which is obtained in an interesting way: 24 hours x 60 minutes x 60 seconds = 864000; 864: 2 = 432.

They were set in the form of "electronic copies", as frequencies for temporal modulation with a quick search in three values. For example, for 432 Hz it was 0.43 Hz; 4.32 Hz and 43.2 Hz, respectively. The result was very encouraging. Everywhere there was a positive reaction, it was the more, the more dysfunctions the patient had in the control (initial) measurement.

As a result, I now use two additional frequencies in any therapy: 528 Hz and 432 Hz. If it is necessary to conduct induction therapy, then I either write down these frequencies on crumbs and place them in the second container of the apparatus, or I conduct a preliminary five-minute bioresonance therapy even before the induction program is switched on.

Ultrasonic vibrations (from 20,000 Hz and above)

These sound waves are widely used in science and technology. In medicine, they are the basis of diagnostic studies - ultrasound.

Butterflies, bats, some birds, fish, dolphins have ultrasonic senses that help them navigate in space.

In modern medicine, ultrasound is actively used in the treatment of tumors, the nervous system, and diseases of the spine. And in 2006, Canadian scientists even managed to learn how to grow lost teeth using ultrasound. Exposure to highintensity ultrasound can lead to the following consequences for a person:

- baldness;
- the occurrence of severe pain syndrome;
- clouding of the cornea and lens of the eye;
- hemolysis;
- increased blood levels of cholesterol, uric and lactic acid;
- minor hemorrhages in various tissues and organs of the body;
- serious hearing impairment;

- destruction of cells of Corti's organ;
- destruction of nerve cells;
- pathological development and destruction of bone tissue.

As a result of prolonged exposure to ultrasound, increased drowsiness, fatigue, dizziness, manifestations of vegetative-vascular dystonia (memory impairment, sleep disorders, indecision, apathy, fearfulness, decreased appetite, tendency to depressive states, etc.) occur.

The healing properties of ultrasound are due to its ability to massage and warm tissues. However, the ultrasonic wave has a number of specific features of its effect on the body. It is possible to deeply warm tissues using various methods, but only the use of ultrasound can achieve good results in treatment.

In medicine, ultrasound is widely used not only to influence the focus of pain, but also for indirect influence. In this case, the following effects are achieved: analgesic, antispasmodic, anti-inflammatory, bactericidal.

A combination of ultrasound exposure with other types of therapy is allowed. However, treatment must be carried out with great care. This is due to the high biological activity of the ultrasonic wave. Good results were obtained in the treatment of ankylosing spondylitis with ultrasound, spondylitis, trophic and varicose ulcers, obliterating endarteritis, sluggish granulating ulcers.

There are some indications about the positive use of ultrasound for stomach and duodenal ulcers, bronchial asthma, pulmonary emphysema, bronchiectasis, otosclerosis, Meniere's disease. There are observations indicating that preliminary "sounding" of human skin increases the efficiency of X-ray irradiation.

Hypersound (from 10nine to 1012-teneighteen Hz)

Physically, hypersound does not differ from sound and ultrasonic waves. Hypersound is often presented as a flow of quasiparticles - phonons.

Frequency 10_{nine} Hz in air at normal atmospheric pressure and room temperature corresponds to a hypersound wavelength of $3.4 \times 10-5$ cm, or 340 nm, i.e. this length is of the same order of magnitude as the mean free path of molecules in air under these conditions. Since elastic waves can propagate in an elastic medium only under the condition that the wavelengths of these waves are noticeably greater than the mean free path in gases (or greater than interatomic distances in liquids and solids), then hypersonic waves do not propagate in air and gases at normal atmospheric pressure. In liquids, the attenuation of hypersound is very large and the propagation range is small. Solid bodies in the form of single crystals are relatively good conductors of hypersound, but mostly only at low temperatures. So, for example, even in a single crystal of quartz, characterized by a small damping of elastic waves, at a frequency of $1.5 \times 10_{nine}$ Hz, a longitudinal hypersonic wave propagating along the X-axis of the crystal at room temperature is attenuated in amplitude by a factor of 2 when it travels a distance of only 1 cm.

Hypersonic research, due to the very great difficulties of artificially obtaining them, advanced very slowly, but in recent decades, thanks to

the rapid development of quantum mechanics and quantum electrodynamics, in this area there has been a sharp leap. Studies of hypersound of thermal origin led to the discovery of Debye waves (thermal phonons), and then coherent phonons were obtained. In addition, it turned out that in liquids, as in solids, thermal motion continuously generates incoherent hypersonic waves of a wide spectrum.

The presence of thermal hypersound in an optically transparent medium leads to light scattering with the formation of several spectral lines shifted to the hypersound frequency, the so-called. the Mandelstam-Brillouin scattering. Investigations of hypersound in a number of liquids led to the discovery in them of the dependence of the speed of propagation of hypersound on frequency and anomalous absorption of hypersound (dispersion).

Modern methods of generating and receiving hypersound are based mainly on the use of the phenomena of piezoelectricity (the appearance of electric charges on the surface of a piezoelectric crystal, for example, on a quartz plate cut in a certain way under the action of mechanical deformation, and, conversely, the deformation of a crystal placed in an electric field) and magnetostriction (changes in the shape and size of the body during magnetization and changes in magnetization during deformation).

One of the most widespread methods of hypersound generation is its excitation from the surface of a piezoelectric crystal. For this, the latter is placed with its end in that part of the resonator where there is a maximum microwave electric field strength; if the crystal is not a piezoelectric, then a thin piezoelectric film, for example, of cadmium sulfide, is applied to its end. Under the action of a microwave electric field, an alternating deformation occurs with the same frequency that propagates through the crystal at a hypersound speed in the form of a longitudinal, or shear, wave. In this case, the end surface of the crystal itself serves as the source of this wave. In turn, mechanical deformation causes the appearance of an electric charge on the crystal surface and, therefore, hypersound reception can be carried out in the same way. Literature can be found about these highly complex studies, including on the Internet. [For example, materials from the Great Soviet Encyclopedia or some literary sources: Lit .: Physical acoustics, ed. W. Mason, P. Thurston, trans. from English, vol. 1-7, M., 1966-74; Tucker J., Rampton W., Hypersound in Solid State Physics, trans. from English, M., 1975; Magnetic Quantum Acoustics, M., 1977.]

Propagating in a material environment (solids, liquids, biological objects, etc.), hypersound interacts with charged particles, for example, electrons, causing deformation of electromagnetic fields in this object. This, of course, leads to serious consequences up to the deformation of the material structure and can be used to study the characteristics of material objects, especially crastallic structures in microelectronics.

So, an elastic wave propagating in a material object carries with it with the speed of sound the local electrical and in special cases

electromagnetic field. These fields change the energy spectrum of objects irradiated by sound.

So, the interaction between artificial, or coherent, phonons and electrons becomes essential in the ultrasonic and especially in the hypersonic frequency range in semiconductors and other material objects with piezoelectric properties.

These phenomena lead, in turn, to the electroacoustic effect of creating a constant electric current (a new electromagnetic field that carries new information).

The electron, in addition to mass and charge, also has its own mechanical moment (spin) and the associated magnetic moment, as well as an orbital magnetic moment. A spin-orbit interaction takes place between the orbital magnetic moment and the spin: if the inclination of the orbit changes, the direction of the spin also changes somewhat. The passage of hypersound of suitable frequency and polarization can cause a change in the magnetic state of the atoms. Quite quickly, it was possible to do special experiments to identify the consequences of the interaction of hypersound with a spin-orbit system and to discover the phenomena of acoustic paramagnetic resonance, which consists in the selective absorption of hypersound by material objects. So scientists approached the creation of the ability to amplify and generate hypersonic waves, as is done in quantum generators.

It is clear that in this way you can create magnetoelastic waves (complex information structures). The most unique possibilities open up in the interaction of light with hypersound, especially with the use of light in the form of laser sources. The most interesting results have already been obtained on the amplification of these magneto-elastic waves, which in turn can scatter light!

I hope that this small excursion into the physics of hypersound will help to understand how this opens up new phenomenal opportunities both for explaining many empirical observations in the field of living matter, and for creating new methods for correcting the interaction of various structures in a living organism to maintain its viability (homeostasis). Perhaps here - on the borderline of the meeting of acoustic and electromagnetic waves - we will be able to understand the processes of environmental changes and its effects on living organisms, such as the effects of electrosmog, weather effects and much more, for example, explaining the informational effect of some living objects on others, the functioning of the biotensor and many other psychic phenomena. So, four years ago there was a solid monograph by the physicist from Dresden R. Gebbernsberger "Dersechste Sinnundseine Phänomene. Physikalische und neurophysiologische Grundlagen der Wahrnehmung von Hyperschal "Ein Forschungsbericht. Books on Demand, Norderstedt. 2010.

In recent years, at various conferences on energy-informational medicine, reports began to appear, where the phenomenon of hypersound is used to explain effects such as homeopathy, energy-informational processes in living organisms, etc. hypersound both for explaining energy-informational phenomena and for treatment by R. Voll's methods and bioresonance methods is Dr. Richard Kraßnigg, who was the leader of the community of German doctors-follists for about 20 years. Known for his work on the measurement and treatment by the method of R. Voll such diseases as hereditary polyneuropathy and Lyell's syndrome. Published his first hypotheses on explaining the action of acupuncture through the phenomena of exposure to ultra- and hypersonic waves.

Hypersonic issues fall within the purview of the Bundesamt für Strahlensicherheit. They have issued a number of reports of epidemiological studies on the development of cancer in children living in the area of nuclear power plants.

Briefly about modern concepts of hypersonic wave sources:

- cosmic radiation (particles);

- solar radiation (particles);

- air turbulence in the atmosphere. Abrupt change in temperature profile (liquid core of the Earth, radioactivity of any kind);

- a variety of biological processes in living organisms associated with temperature extremes, such as metabolic processes, active muscle work;

- mental processes through the movement of charges in nerve cells during their activity (high amplitudes!).

Wherever there is matter, there is hypersound. These are natural elastic vibrations of molecules and atoms, and smaller material elements. Everything material is connected through hypersonic waves. A person as a whole and his individual formations perceive both the frequency and the amplitude of sound waves. The latter is perceived by our smart sensors completely in the range from 0 to 750 dB. The global average level of elastic cosmic radiation is 60–70 dB. Evolutionarily, man is adapted to these meanings. In the range from 30 GHz to several THz, huge masses of information fall on the Earth, which is many orders of magnitude larger than the volume of purely electromagnetic information. As mentioned above, hypersonic waves have natural amplification mechanisms. Hypersonic waves, in addition to the initial information, carry additional information from the objects they penetrate, partly through modulation. Hypersonic waves have all the qualities of wave processes (diffraction, reflection, fading), but in alliance with electromagnetic waves they also have the new qualities indicated above.

Dr. Krassnigg's work and research reports from the Bundesamt für Strahlensicherheit provide abundant evidence of hypersonic waves of all kinds, from nuclear power plants and radioactive waste depots to a range of allopathic medicines.

A healthy person emits 50-60 dB of hypersonic waves, a sick person completely different values in quality and quantity. So, in inflammatory processes, there is a deficiency of hypersonic waves. Deficiency of hypersonic waves is tested for depression and the effects of exhaustion and distress. In patients with cancerous tumors, the emission of hypersonic waves has a very high value of about 650 dB. To measure hypersonic radiation Dr. Krassnigg used a rather old instrument for measurements according to R. Voll.

I hope that this small review shows well what tremendous opportunities are offered by studies of hypersonic acoustic waves both for understanding complex interaction processes in biological objects and the processes of environmental exposure, which will lead to the creation of highly effective methods for treatment by methods of energy-informational medicine.

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