



THE WORLD OF BIOREGULATION TECHNOLOGY GABOR LEDNYICZKY

Canada Canada

Mission statement

"My objective is to research and educate the scientific, clinical and public communities related to the biophysical approach in biology and medicine; to develop applications in bio-regulation therapy and other functional treatments."



Gabor Lednyiczky Owner of Hippocampus-Brt Ltd. Developer of Bio-Regulation Technology (BRT)

Early development of interest for the healing arts

Gabor was confronted at an early age with articular and periarticular tissue ailments of the body. His joint problems, allergies and severe migraines made him aware of the consequences of diet and the life style factors. His main interest in education was math and physics and early in life participated in specific math competitions.

Turning point

An important milestone of his life was the triple hernia operation of his mother. At the age of 11 he actively participated in her rehabilitation and soon made the turning point by developing his own massage technics through extraordinary sensitivity and perseverance. He basically redeveloped Shiatsu, the Japanese acupressure style. Later these technics led him to understand the Chinese meridian system and the Indian bioenergetic system.

Professional career and studies

Following the age of 19, Gabor was involved on a daily bases in practicing healing arts. His permanent studies made it possible to develop a complex bioenergetic approach, including physical and mental exercise, dietary elements and Chi Kung. To further his studies, Gabor left Hungary in 1983.

- first application of German bioinformatic devices 1984
- acupuncture study at Societas Medicinae Sinensis (Munich, Germany) 1985-'86
- first application of a computerised bioinformatic device 1987
- physiotherapy study at Hogeschool van Amsterdam, University for Applied Sciences (Amsterdam, Holland) 1989-'93
- BRT at Brügemann Institut Internazionale Medizinische Arbeitskreis (Munich, Germany) 1991-'92
- psychology study at Miskolc Philosopher Association (Miskolc, Hungary) 1997-2000





While learning about the different modalities of bioenergetic processes, Gabor felt motivation to develop a complex technology for optimising adaptation and all necessary logistic steps on tissue and cellular level. That is why his main focus is on electromagnetic bio-communication and related studies. He initiated a series of complex research programs to prove the practical applicability of:

- a) mitogenetic radiation
- **b)** biophoton emission of DNA
- **c)** information content transmitted by the so called biological windows as observed in major Russian, German, and North American research facilities.
- ongoing research projects in several Institutes of the Academy of Science of the Ukraine (Kiev, Ukraine); main topics: BRT applications in oncology, gerontology, immunology, radiobiology, neurology and intensive care – 1993-'98
- development and certification of a complex functional electro-diagnostic method Functional Electro-Dynamic Test (FEDT) – and a complex diagnostic and therapeutic device with ECG, BRT and FEDT applications – 1993-'96
- cooperation with the research group of Martin Blanc and Reba Goodman (Department of Pathology and Cell Biology, Columbia University, New York, USA); main topic: BRT induced heat shock protein expression – 1995
- participation in different research projects at Institute of Noetic Sciences (Sausalito, USA); main topics: identifying contactless and remote healing effects; functional electrodynamic testing (FEDT), and the role of bioelectric testing methods in monitoring the healing process – 1995-'97
- cooperation with Mea-Wan Ho's research group (Department of Biology, Open University, Milton Keynes, UK); topic: BRT induced immediate and long term changes in metabolic processes – 1996-'97

Hippocampus Institute in Budapest, Hungary

Another important development in **1993** was the foundation of the **Hippocampus Institute** in Budapest, Hungary. Gabor established Hippocampus with the objective to develop state of art equipment for BRT applications, as well as to provide clinical care and education in the same institute. Hippocampus has become a unique centre of knowledge regarding the development of technologies which support biological communication on intra and intercellular level. In 1994 the **Hippocampus Institute** also created an outpatient medical clinic with focus on BRT applications; additionally all day-spa facilities, organic nutrition centre and naturopathic services necessary for a truly functional and holistic approach.

SHIPPOCAMPUS

Expanding BRT worldwide

Also **1993** was the year when Gabor started to cooperate in the opening of clinical facilities where BRT becomes the centre of medical and wellness services. During the last 20 plus years, hundreds of medical, naturopathic, chiropractic, biofeedback and wellness centers started to use BRT and Hippocampus provides worldwide the necessary education to administer BRT in a clinical setting. The variety of the users became huge:

• large facilities include

- the National Medical Rehabilitation Centre in Budapest,
- Uzsoki U. Hospital in Budapest,
- UCLA Medical Centre in Santa Monica,
- Medicana Hospital in Konya,
- Magnet Hospital in Ankara, etc.



the National Medical Rehabilitation Centre in Budapest



In the Cancun hotel zone, the B-Well Clinic was the first to implement the LENYO SanoCenter solution

There are numerous users who are satisfied with BRT:

• famous medical doctors, like

- Arturo O'Byrne
- o Santiago Rojas
- o William Rea
- Kamyar Hedayat
- Özlem Kiran
- Kemal Turhan
- Anna Pfeifenroth
- o Elvira Babindak
- Erzsebet Tusor
- Valeria Szedlak-Vadocz
- Vera Pilipovic
- Divna Cvetkovic
- o Israel Finkelstein
- Etienne Claudet
- o Ignacio Parada Bello
- o Vijaya Pratha



Dr. Elvira Babindák Medical Director of the Hungarian Taekwondo Federation

• many sports teams, among them several of the Hungarian Sports Federations

- Hungarian Canoe Federation
- Hungarian Gymnastics Federation
- Hungarian Handball Federation
- Hungarian National Skating Federation
- Hungarian Water Polo Federation



Tamás Varga, Water polo player World Champion and two-time Olympic Champion



Katalin Kovács, Multiple World Champion, three-time Olympic Champion kayaker



Szilveszter Csollány, Olympic and World Champion gymnast

Lecturing activities

Gabor's research activities and deep involvement in the clinical work resulted in a large scale lecturing activity.

He lectured in many universities and major hospitals, like

- Aurel Vlaicu University of Arad (Arad, Rumania)
- Charles University (Prague, Czech Republic)
- Hospital Angeles Mexico (Mexico City, Mexico)
- Hospital Military de Santiago (Santiago de Chile, Chile)
- Hospital Sant Joan de Déu University of Barcelona (Barcelona, Spain)
- Hungarian Army Central Military Hospital (Budapest, Hungary)
- Hungarian Army Military Hospital (Pecs, Hungary)
- Istanbul Technical University (Istanbul, Turkey)
- Instituto Politécnico Nacional (Mexico City, Mexico)
- Lomonosov University (Moscow)
- Magnet Hospital (Ankara, Turkey)
- Medicana Hospital (Konya, Turkey)
- National Taiwan University Hospital (Taipei, Taiwan)
- National University of Kyiv-Mohyla Academy (Kiev, Ukraine)
- Universidad Americana (San Jose, Costa Rica).
- San Jose State University (San Jose, California)
- Semmelweis University (Budapest, Hungary)
- Taipei Medical University (Taipei, Taiwan)
- The National Autonomous University of Mexico (Mexico City, Mexico)
- The Taras Shevchenko National University of Kyiv (Kiev, Ukraine)
- Universidad de la Valle (Cali, Columbia)
- Universidad Líbre (Cali, Columbia)
- University of Bologna (Bologna, Italy)
- University of Padova (Padova, Italy)
- University of Pavia (Pavia, Italy)
- University of Vienna (Vienna, Austria)



















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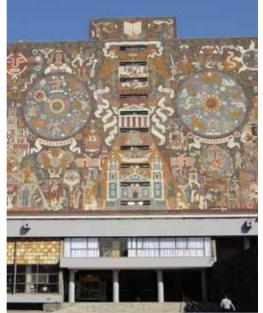


















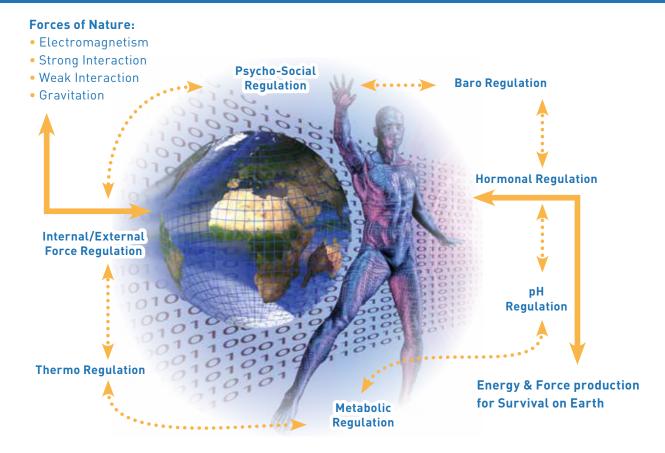








The relationship of homeodynamics and BRT



What is homeodynamics? It is the adaptational activity of living organisms to changing external and internal conditions, which ensures their own relative biological stability.

The body exchanges matter, energy and information with its environment. These "ingredients" are provided for the living organism by self-supporting functions, which are collectively called **self-regulating processes.**

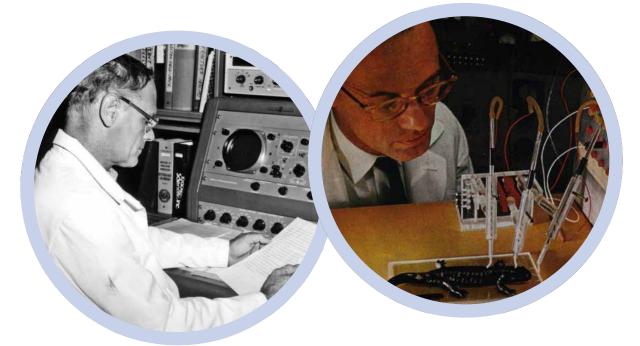
The system of homeodynamics is controlled by electro-magnetic fields. Research has shown that the system of homeodynamics is controlled by actively emitted electro-magnetic waves from the different tissues and cell structures, as well as received from the environment (so called external pacers). The external and internal electro-magnetic interactions of the organism are collectively called electromagnetic bio-communication.

Bio-regulation Technology (BRT): In the age of physics, it has been measured and understood that life depends on the quality of electromagnetic bio-communication. On an average, 100,000 biological activities take place in a human cell per second. BRT is the support for optimal communication conditions, a specific telecommunication technology for optimising intra and intercellular signaling processes. That is why BRT brings a major improvement in adaptation processes and stabilises homeodynamics.

Origins of BRT

Soft tissue and bone repair

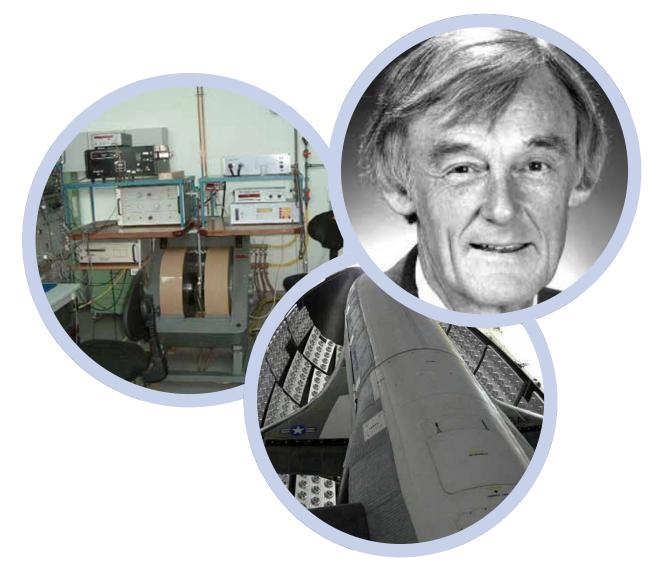
Bio-regulation technologies and/or therapy originate from the effort to understand the selfrepair capabilities of the organism. Research work before the second world war became classified, but right in a military (VA) hospital in Syracuse upstate New York the orthopaedic surgeon **Robert O. Becker** initiated a long research project in order to understand the governing forces behind wound healing and bone repair which resulted in the most important clinical data for BRT. Electric properties of tissue involved in repair mechanisms were identified; and in case of loss in tissue repair capabilities, decreased electromagnetic tissue communication functions were found as the cause. For the support of diminished communication processes, first FDA certified devices were developed in cooperation with Columbia University, NY during the 1970s.



- 1. Becker RO, Bachman CH, Bioelectric effects in tissue, Clinical orthopaedics and related research, 1965 Nov-Dec;43:251-3, PMID: 5861096
- 2. Marino A, Becker RO, Piezoelectric effect and growth control in bone, Nature, 1970 Oct 31;228(5270):473-4, PMID: 5482504
- 3. Becker RO, The basic biological data transmission and control system influenced by electrical forces, Annals of the New York Academy of Sciences, 1974;238:236-41, PMID: 4531264
- Becker RO, Cone CD, Jaffe LF, Parsegian VA, Pohl HA, Weiss L, Panel discussion: The role of electrical potential at the cellular level in growth and development, Annals of the New York Academy of Sciences, 1974;238:451-6, PMID: 4531274
- 5. Baker B, Spadaro J, Marino A, Becker RO, Electrical stimulation of articular cartilage regeneration, Annals of the New York Academy of Sciences, 1974;238:491-9, PMID: 4548334
- 6. Baker B, Becker RO, Spadaro J, A study of electrochemical enhancement of articular cartilage repair, Clinical Orthopaedics and Related Research, 1974 Jul-Aug;(102):251-67, PMID: 4425033
- 7. Fuller RG, Marino AA, Becker RO, Photoconductivity in bone and tendon, Biophysical journal, 1976 Jul;16(7):845-6, PMID: 938723, PMCID: PMC1334905
- Marino AA, Becker RO, Electrical osteogenesis: an analysis, Clinical Orthopaedics and related research, 1977 Mar-Apr;(123):280-2, PMID: 852183
- 9. Becker RO, Spadaro JA, Marino AA, Clinical experiences with low intensity direct current stimulation of bone
- growth, Clinical Orthopaedics and related research, 1977 May; (124):75-83, PMID: 304404
- 10. Becker RO, Induced dedifferentiation: a possible alternative to embryonic stem cell transplants, NeuroRehabilitation. 2002;17(1):23-31, PMID: 12016344

Describing the nature of biological communication channels

W. Ross Adey, professor of anatomy and physiology, a medical doctor and researcher of adaptation mechanisms in the US Air Force discovered the importance of extremely weak electromagnetic fields in membrane transport and in intracellular enzyme systems. After 20 years of systematic investigation he was able to describe the main characteristics of such internal singling processes which control metabolic activity on cellular level. Resonance in frequency and intensity are required for inducing changes in metabolic processes, as described in the summarising articles:



- 1. Bawin, S. and Ross Adey, W. (1976): "Sensitivity of Calcium Binding in Cerebral Tissues to Weak Environmental Electric Fields Oscillating at Low Frequency," Proc. Natl. Acad. Sci. USA 73, 1999–2003.
- Adey W.R., Bawin S.M. (1977): "Brain interactions with weak electric and magnetic fields". in Neurosci. Res. Prog. Bull. 15:7, pp. 121-129.
 Adey W. R. (1980): Frequency and Power Windowing in Tissue Interactions with Weak Electromagnetic Fields. in Proceedings of the IEEE, vol. 63, no. 1, p. 119-125.
- Adey W.R. (1989): Cell Membranes, Electromagnetic Fields, and Intercellular Communication. In Brain Dynamics, Volume 2 of the series Springer Series in Brain Dynamics, ISBN 978-3-642-74559-1 - pp. 26-42
- 5. Interaction Mechanisms of Low-Level Electromagnetic Fields in Living Systems, Adey W.R. Editor; Oxford University Press New York, 1992.

Research work in the Academy of Science

Gabor's research activity in Kiev began in January 1993; his first priority was to show that every single biological unit in the organism receives information from corresponding physiological units and adaptation mainly depends on the quality of information transfer. In this regard his supposition was, that the information content, the patterns of the physiological information flow are even more critical than other aspects of the waves. That is why he insisted, that cell repair functions can be optimised (even in lethally injured cell structures) by making available the full information content of the same tissue system. BRT studies with

a) immune cells of human blood;

b) during the early development of drosophila;

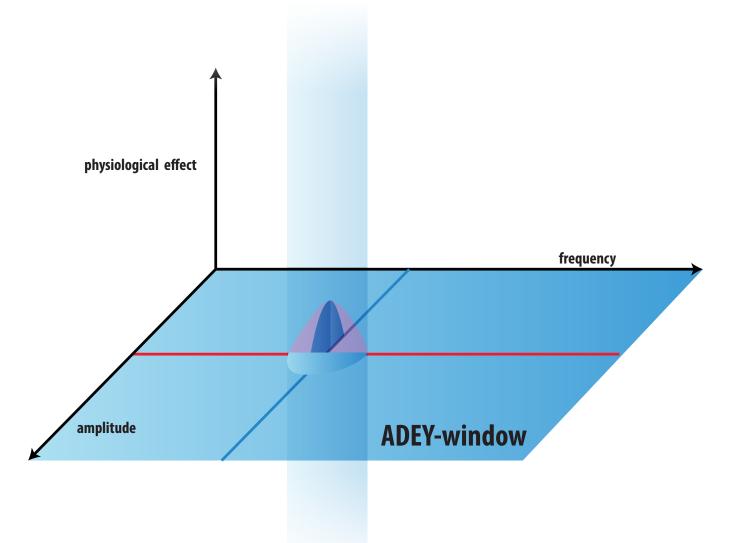
c) with immunosuppressed mice after long term exposure to ionising radiation all confirmed that homeodynamics of every living cell depend on the availability of information and by the application of a specific technology which supports information transfer, cells can restart normal functioning.



Lednyiczky, G. In vitro und in vivo Versuche, um die Kontrollfunktion niederenergetischer Bio-informationen und anderer Schwingungen zu demonstrieren' (in: Niederenergetische Bioinformation, Ed.: P.C. Endler and A. Stacher 1997; Facultas Universitätsverlag, Wien) pp. 115-152.

Re-definition of the notion of Biological Window

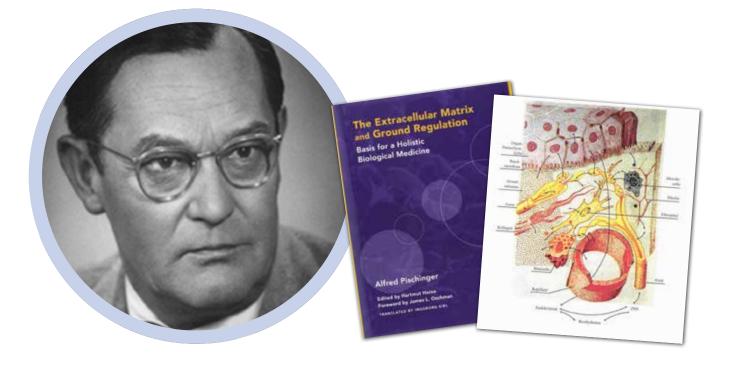
Gabor understood that information processing depends on many aspects of physiology as well as on environmental factors in the same time. Thus, the notion of windowing (i.e. Adey-window) had to be broadened, including all kinds of rhythmical vibrational processes used for self-regulation. Today the tissue and function specific communication channels are called **"Biological Windows" (BW);** BW represents rather a constellation of components than just individual wave parameters and that is why the developments of Hippocampus also take into consideration the fractal nature of cells and all biological units, which is equally in evidence in biological information (the fractal nature). That is why the support of biological information transfer (i.e. BRT) necessitates a somewhat different approach than usual telecommunication technologies.



- 1. Lednyiczky, G. and Nieberl, J.: Cerebellum Multichannel Biofeedback Instrument. Proceedings of the 1st World Congress on Magneto-therapy, London, 1996, p. 190
- 2. Lednyiczky, G. and Nieberl, J.: Biological resonance and the state of the organism. In: Potentiating Health and the Crisis of the Immune System, Mizrahi, et al., eds. Plenum Press, New York, NY, 1997, pp. 223-242.

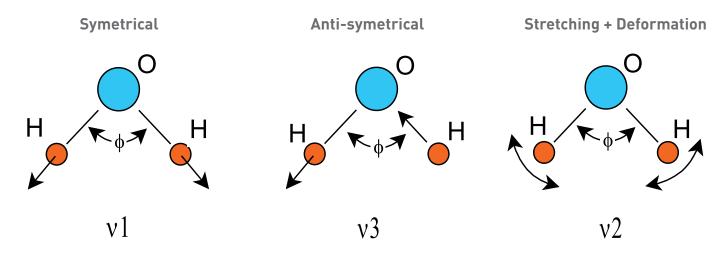
The notion of homeodynamics

In Europe, during this time, the Austrian histologist and embryologist, professor of University of Graz, later director of the Department of Histology and Embryology in University of Vienna, **Alfred Pischinger** described the electromagnetic nature of a new type of whole body regulation system through the extracellular matrix. This master control system of the organism made possible to understand the forces behind basic chemical changes in the body and made the link between environmental changes, information transfer and adaptation as such. Extracellular matrix with its liquid crystalline nature is considered the part of the organism that adapts first to every change in the environment, whether it is a change in temperature, nutrition, infection, toxicity, mental state or spiritual goal. The dynamic order of the Matrix is supported with the continuous energy and information exchange.

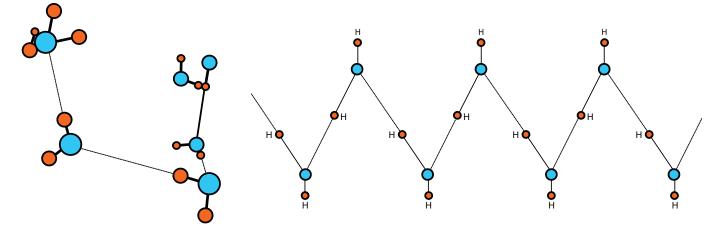


The role of water in the body

Later in the 1990s Gabor's research association with **Olga Zhalko-Tytarenko** and her group at the National Academy of Science of the Ukraine lead to the discovery that water molecules bound to the ingredients of the Matrix play a structure forming role and can be both, storage and transmitter of information and energy within the biologic systems. That is why health and health maintaining efforts of the organism should be described in terms of "homeodynamics" rather than in terms of "homeostasis".



A schematic representation of the basic type of vibrations in a water molecule



Hydrogen bonds in water: examples of cluster (left) and chain (right) structures

^{1.} Lednyiczky G., Lakiza O., Zhalko-Tytarenko O., Sakharov D. Positional Information Transfer by using the Endogenous Electromagnetic Fields of Embryonic and Malignant Cell Cultures, Abstract book of the 18th Annual Meeting of the Bioelectric Society, Victoria, BC, June 9-14, 1996.

O. Zhalko-Tytarenko, V.Liventsov, G.Lednyiczky: Endogenous Electromagnetic Field Pattern Formation In Water; Presented at the Unconventional Therapies Conference, Monte-Carlo, Monaco, 6-7 December 1996

Making electromagnetic self-regulation visible

In the 1980s the group of **Mea-Wan Ho** at Open University, England developed a polarised microscopy system in order to make visible those electrical changes in the Matrix. Also, her group's research has shown that even embryonal stages of the development are controlled by electromagnetic interactions. Once more, Gabor's research in Kiev at the Institute of Gerontology could further develop on the details of electromagnetic bio-communication and demonstrate the importance of electromagnetic interactions during the very early stages of development, including self repair and survival. Here a further addition to earlier research consisted in the development of communication support technologies, which resulted in the therapy branch of BRT.



- 1. Ho M.-W.: Coherent Excitations and the Physical Foundations of Life in: Theoretical Biology: Epigenetic and Evolutionary Order from Complex Systems. (Goodwin B. and Saunders P. Editors) Edinburgh University Press Edinburgh. 1989 pp. 162-176
- 2. Electromagnetic Bio-Information (Popp F.-A., Warnke U., König H.L., Peschka W. Eds.) Urban & Schwarzenberg, München- Wien- Baltimore, 1989.
 3. Ho M.-W., Xu X. Ross S., Saunders P.T. Light Emission and Rescattering in Synchronously Developing Populations of Early Drosophila Embryos

 Evidence for Coherence of the Embryonic Field and Long Range Cooperativity, In Recent Advances in Biophotons Research (F.-A. Popp, K.H. Li and Q. Gu, Eds.) p. 287-306, World Scientific, Singapore, 1992.
- 4. Lednyiczky, G. et al. in: Abstract Book of the 17th Annual Meeting of BEMS, Boston, MA, June 18-22, 1995, The Bioelectromagnetics Society, Frederick, MD, 1995.
- Savtsova Z., Sakharov D., Lednyiczky G., et al. Experimental study on effectivity of the application of BRT EMF-therapy in the correction of immunological disturbances caused by the influence of conditions of the Chenobyl NPS accident zone // Ukrainian radiological journal - 1995.
 - 3, 12. - P. 143-146
- 6. Lednyiczky G., Wassermann A., Sakharov D., Koshel N.: Geschädigte Drosophilalarven und Information von nicht geschädigten Tieren. in Homöopathie-Bioresonanztherapie - Physiologische und physikalische Voraussetzungen - Grundlagenforschung (Eds.: Endler P.C., Schulte J.); Verlag Maudrich: Wien-München-Bern. 1996, pp. 181-188.
- 7. Lednyiczky, G. and Nieberl, J.: Cerebellum Multichannel Biofeedback Instrument. Proceedings of the 1st World Congress on Magneto-therapy, London, 1996, p. 190
- 8. Lednyiczky, G. and Nieberl, J.: Biological resonance and the state of the organism. In: Potentiating Health and the Crisis of the Immune System, Mizrahi, et al., eds. Plenum Press, New York, NY, 1997, pp. 223-242.
- 9. Lednyiczky, G.: In vitro und in vivo Versuche, um die Kontrollfunktion niederenergetischer Bioinformationen und anderer Schwingungen zu demonstrieren (in: Niederenergetische Bioinformation, Ed.: P.C. Endler and A. Stacher 1997; Facultas Universitätsverlag, Wien) pp. 115-152.



Development of BRT equipment

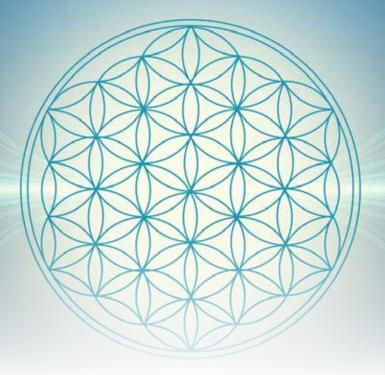
In Budapest Hungary, Hippocampus started to develop first test equipment, followed by therapy devices; all based on above mentioned research of self-regulation processes of the organism. The first 12 channels test and 1 channel therapy equipment, the Cerebellum Multichannel Medical Instrument (CMMI) was produced in late 1994 and in 1996 certified as a medical device.

Administering the own signals of the organism for adaptation support

In 1998 the first generation of the CellCom device was introduced. This device processes electromagnetic signals of the organism and uses selected vibrational components of the endogenous signals for therapy. Endogenous BRT method makes it possible that biological structures receive exact matching components of the information content available in the communication network of the organism.

BRT home units

Hippocampus introduced in the year 2000 small portable home version units of the CMMI's therapy module. This was followed during the years by various modalities of home devices in order to make BRT available for each and everyone.



Multi-channel devices

Increased environmental stress on the organism made it necessary to develop equipment which works on several biological levels in the same time. This is how the 4-channel BRT technology was born, which can support four different communication channels simultaneously. Typically, the nervous system, circulatory system, digestive system are supported equally to the target zone under therapy.

New professional units and certification issues

After the political turmoil regarding complementary medicine regulations in Hungary, Hippocampus did not continue the medical certification of its devices, rather classified them as "wellness equipment" in order, that all user groups can use them. In 2011 for a period of 3 years, most of the new generation technologies were again classified as "medical device". Due to changes in the re-certification politics, in September 2014 these certificates were not renewed, since BRT is fundamentally different from allopathic therapy approaches and its application is not connected with any medical claim. BRT provides information and biological units can follow along with more precise adaptational reactions in their metabolic processes; that makes possible higher biological coherence, stronger immune system and making better decisions on mental-emotional level.

For Hippocampus the category "professional equipment" means professional documentation features in the software, where every session is automatically allocated to a client and making sure that one client can not receive the protocol of another client.

Professional devices

Lenyo CellCom (LCC)

The **LCC** is an endogenous device, because it uses uniquely signals of the organism received by the two input channels. Through a sophisticated filtering and modulation technology the actual content of the Biological Window (BW) will be used for supporting information processing in the body.

More than 650 pre-loaded programs and over 600 (tissue and condition specific) protocols make the application user-friendly. Also custom made protocols can be created or imported from other practitioners.

Sessions are shorter than ninety minutes, sometimes only twenty minutes, and due to the extremely profound impact on the information processing of the targeted biological subunits, typically administered only once or maximum twice weekly. LCC sessions are regularly complemented with other exogenous BRT sessions, in order to support adaptational reactions of the organism initiated with the LCC session.



Lenyo SanoCenter (LSC)

The **LSC** is the pro system among the exogenous devices due to its variability and complexity. It can form a network of signal generators and serve up to 64 clients simultaneously or deliver several programs for one sole person.

The word exogenous serves here the differentiation from the endogenous approach in BRT, where the organism delivers the input signals for the session. Here uniquely the signal generator and the antenna/applicator are responsible for the generated field which serves as carrier wave for the internal communication signals of the organism. This field must be fine tuned to the targeted BW in order to give the possibility to the cells to receive all actually present biological signals in the range of the antenna.

Each BW is supported on average only for a few seconds, or maximum for a minute because of the fantastic fast speed of metabolic activity in the human cells. A program typically contains 30-85 sub-programs for the different BWs of the targeted zone; this makes sure that the different metabolic activities of the targeted biological sub-unit are all sufficiently supported in their adaptation processes.





Most of the **LSC** protocols are prepared for a 4-channel application, where four independent signal generators deliver synergistically the carrier waves during

the session. This can be compared to an orchestra, in which the different instruments support each other in the expression of the melody, when playing together following the notes of the symphony. As the human body can be represented like a big orchestra, in which the different organs represent the different instrument groups; the cooperation of the organs and the cells in the organs is equally important as the cooperation of the different instrumentalists in the symphonic orchestra. That is why a multi-channel BRT application is more efficient than a single channel one; the same way like a solo instrument can show less details of the melody than the whole symphonic orchestra, which makes the sound full-bodied.

Home devices

Lenyo Harmony and Lenyo Sport

Both provide equally 4-channel support like the SanoCenter but do not need the computer to select protocols. They serve the mobility and also represent a financially affordable version specialised to one specific user group. Nevertheless, both devices are equally suitable for antiageing purposes.

Lenyo Harmony : behavioural issues

- mood and emotional problems
- sever behavioural issues
- restlessness
- sleep disorders
- when toxicity and digestive system related issues are in the background
- when the immune system is compromised due to distress

Lenyo Sport: enhanced physical activity related issues

- all kinds of physical trauma, micro and macro injury, bone breaks, infections
- fatigue and exhaustion
- muscle and joint problems
- relaxation support
- when the workload exceeds the regeneration capability of the organism
- metabolic activity related issues

22

Hippocampus provides education for all users

Professional health care providers necessitate thorough and detailed education in order to be familiar with the new paradigm of functional approach based on bioinformatics. BRT requires an information and self-regulation based approach to the organism's adaptational processes. Environment and organism permanently interact and inter-influence; the unity of nature seems unquestionable and process oriented assessment methods are in development. So far, the human body seems to be the most sensitive measurement instrument. The so called objectivity of the measurements became very relative due to the measurement set up itself. All those factors cannot be measured "objectively" which give a person

happiness and contentment; on the other hand there are no two cases of chronic pain and loss of physiological function of physiological function which are identical; ... and in this dynamics most of the earlier established laws of biology and health care beliefs change.

Hippocampus offers a 200 academic hour program, which is basic education for all professional users of BRT. Additional educational programs are provided based on application field or on therapy protocols. Beside of device oriented training there has been put equally accent on diet, exercise, mental-emotional balancing and TCM related aspects of self-regulation support. The average learning curve in BRT takes 2-3 years. During the entire period of the 1400 hour extensive course in BRT, Hippocampus provides continuous online support for all practitioners.

For home and family users Hippocampus provides shorter, but extremely informative and life changing educational programs. BRT aims to support all the different adaptational activities of the organism, consequently the educational programs promote beyond technical information behavioural aspects of active participation and engagement into the healing process. This journey includes the learning of conscious decision making for supporting biological coherence. Public lectures and specifically organised client supporting events take place ongoing in many different BRT clinics.





Undergoing BRT is an educational process itself

BRT is not simply a modern technology in which different equipment are used, but rather a series of technics to pay attention to all ongoing processes in and around the organism. That is why life style changes accompany all BRT sessions and health care professionals constantly teach how to avoid further blockages of the natural information flow of the organism. BRT brings a "green revolution" to all aspects of life because BRT assesses and optimises information flow. In the same time BRT teaches to avoid all things counteracting with natural adaptation processes and this is how BRT empowers all users.



BRT empowers the user

While walking the path of self-aligning (self-healing) and self-discovery, all BRT users become more experienced in self-observation and conscious decision making. Eating, drinking, shopping, sleeping, exercising habits, as well as leisure time activities and social interactions change to the more peaceful. Users of BRT become more aware of what their communication and adaptation system needs and detach themselves from unnecessary fashion based behaviour. BRT contributes to deep experiencing, developing a powerful presence, differentiating between the options and making authentic, adequate choices. This we call empowering.

Health care professionals using BRT return to the "old" pattern of personal and family advisor; physiological and emotional balance maintenance return once again to be their priority. That is how biophysics settles the ongoing fight between "old fashioned" and "modern" tendencies in biology and health care and presents a "human scale" personalised problem solving for each case. Health care professionals find again their dignity and intellectual joy in their work, while patients become satisfied clients with steadily increasing motivation. Self-respect will be restored on both sides.



Professional education modules

1. General BRT - ground level course (200 hours)

- 1. rate and complexity of metabolic activities
- 2. necessary self-regulation mechanisms for synchronisation
- 3. adaptation definition from a biophysical standpoint
- 4. history of electromagnetic biocommunication research
- 5. internal pacers
- 6. external pacers
- 7. definition of bio-regulation technologies (BRT)
- 8. BRT applications in acute care
- 9. BRT applications in chronic cases
- 10. BRT applications in palliative care
- 11. BRT applications in preventative care
- 12. BRT in stress management
- 13. BRT in performance optimisation
- 14. combination of BRT with other technics and interventions
- 15. life style elements and BRT
- 16. how to communicate with patients, how to motivate clients





2. General BRT - extensive course (1400 hours)

- 1. BRT ground level course
- 2. nutritional aspects of electromagnetic biocommunication
- 3. multiple chemical sensitivity
- 4. food intolerance and allergy
- 5. psycho-emotional aspects of allergy
- 6. personal and family information processing
- 7. external pacers' influence on stress management and decision making
- 8. internal pacers' influence on stress management and decision making
- 9. functional approach in physiology and the concept of homeodynamics
- 10. circulatory system and BRT
- 11. the role of connective tissue in trophic activity and electromagnetic biocommunication
- 12. traditional Chinese medicine (TCM) and BRT
- 13. loco-motor system and BRT
- 14. ageing and BRT
- 15. fertility, functional infertility and BRT
- 16. gynaecology and BRT
- 17. andrologia and BRT
- 18. paediatrics and BRT
- 19. nervous system and BRT
- 20. sleep, rest, mental-emotional balancing and BRT
- 21. performance optimisation and preventative approaches
- 22. self-care for health care professionals
- 23. sports medicine and BRT



3. BRT in Physiotherapy (144 hours)

- 1. history of BRT
- 2. new approaches in physiotherapy born from electromagnetic biocommunication research
- 3. BRT and pain management
 - 1. constitution related factors
 - 2. environmental factors
 - 3. life style related factors
 - 4. acute pain management
 - 5. chronic pain management
- 4. BRT and circulatory system support
- 5. BRT and muscle power optimisation
- 6. BRT and muscle coordination and flexibility maintenance
- 7. BRT and wound healing
- 8. BRT and post-OP rehabilitation
- 9. BRT and post-amputation rehabilitation
- 10. BRT and manual therapy
- 11. BRT and chiropractic care modalities
- 12. bone, joint and spine improvement program (BoJoSIP)
- 13. muscular balance program (MBP)





4. BRT in Gerontology (144 hours)

- 1. history of BRT
- 2. new approaches in gerontology born from electromagnetic biocommunication research
- 3. BRT and hormonal system
- 4. BRT and environmental stress factors, including multiple chemical sensitivity
- 5. BRT and sensory system support
- 6. BRT and digestive system support
- 7. BRT and circulatory system support
- 8. BRT and sleep management
- 9. BRT and mental-emotional balancing
- 10. BRT and memory maintenance
- 11. mental freshness program (MFP)
- 12. vision improvement program (VIP)
- 13. hearing improvement program (HIP)
- 14. bone, joint and spine improvement program (BoJoSIP)
- 15. muscular balance program (MBP)



5. BRT in Sports Medicine (144 hours)

- 1. history of BRT
- 2. new approaches in sports medicine born from electromagnetic biocommunication research
- 3. inherited and constitution related adaptation factors
- 4. BRT and acute injuries
- 5. BRT and chronic injuries
- 6. BRT and micro-injuries
- 7. BRT and sport nutrition
- 8. BRT and traveling
- 9. BRT and sleep, rest, mental-emotional balancing
- 10. BRT and sport-psychology
- 11. BRT and complex performance optimisation
- 12. Lenyo Stress Management Program (LSMP)
- 13. bone, joint and spine improvement program (BoJoSIP)
- 14. muscular balance program (MBP)





6. BRT in Stress Management (144 hours)

- 1. history of BRT
- 2. new approaches in stress management born from electromagnetic biocommunication research
- 3. BRT and life style elements
 - 1. eating habits
 - 2. physical activities
 - 3. mental activities
 - 4. sleep and rest habits
- 4. mental-emotional balancing exercises
- 5. Lenyo Stress Management Program (LSMP)





7. BRT in Preventative Care (144 hours)

- 1. history of BRT
- 2. new approaches in preventative care born from electromagnetic biocommunication research
- 3. BRT and digestive system
- 4. BRT and circulatory system
- 5. BRT and hormonal system
- 6. BRT and sleep management
- 7. BRT and mental-emotional balance
- 8. mental-emotional balancing exercises
- 9. BRT and life style elements
 - 1. eating habits
 - 2. physical activities
 - 3. mental activities
 - 4. sleep and rest habits
 - 5. family dynamics
 - 6. school and workplace dynamics
- 10. BRT and environmental stress factors, including multiple chemical sensitivity

- 11. Lenyo Stress Management Program (LSMP)
- 12. bone, joint and spine improvement program (BoJoSIP)
- 13. muscular balance program (MBP)



8. BRT in Psychology and Behavioural Medicine (144 hours)

- 1. history of BRT
- 2. new approaches in psychology and behavioural medicine born from electromagnetic biocommunication research
- 3. BRT and environmental stress factors, including multiple chemical sensitivity
- 4. BRT and life style elements
 - 1. eating habits
 - 2. physical activities
 - 3. mental activities
 - 4. sleep and rest habits
 - 5. family dynamics
 - 6. school and workplace dynamics
- 5. BRT and the emotional attributes following traditional Chinese medicine (TCM)
- 6. BRT and constitution related emotional traits
- 7. BRT and fear, anxiety, indecisiveness
- 8. BRT and attention deficit disorder (ADD)
- 9. BRT and attention deficit hyperactivity disorder (ADHD)
- 10. BRT and autism spectrum disorder (ASD)
- 11. BRT and post-traumatic stress disorder (PTSD)
- 12. BRT and depression
- 13. exercises for psychological balancing
- 14. Lenyo Stress Management Program (LSMP)



Application of BRT devices

LENYO BRT devices are designed to improve communication and adaptation capability of the organism, thus the overall well-being with a minimum of energy. LENYO Bio-Regulation Technologies (BRT) follow a systemic and holistic approach that considers the organism as a complex regulatory system. BRT intends to create a better environment for self-regulation on every level of biological activities and LENYO BRT programs address all major communication channels involved in the different aspects of a self-regulation or adaptation problem.

(1) gerontology

- digestive system
 - diminished production of digestive juices
 - slow peristaltic activity
 - chronic constipation
 - lack of appetite
 - reflux
 - leaky gut syndrome
 - problems of the large intestine based immune functions (decreased functional activity of B-lymphocites)
 - blood sugar regulation problems
 - digestive system related libido problems

circulatory system

- diminished peripheral circulation and related pH and tissue quality problems
- stagnation in the lymphatic system
- dysfunctions in vasomotor activities
- diminished blood supply of vital organs, including the heart
- heart rhythm problems
- cerebral blood supply problems
- diminished ADL capabilities (=performance in activities of daily life, like walking, household related works, etc.)
- ulcerations due to poor circulation
- circulatory system related libido problems

nervous system

- diminished neurotransmitter production
- nerve cell metabolic activity problems and related reflex disturbances
- cerebral electric dysfunctions and related mental performance and behavioural problems
- loss of memory
- chronic anxiety
- mood problems
- addiction type problems

- sleep disturbances
- PTSD = all forms of post-traumatic stress disorder
- weather sensitivity
- nervous system related libido problems

loco-motor system

- gait problems
- chronic back pain
- loss of muscular strength
- joint problems
- bone quality problems
- movement coordination problems
- chronic soft tissue pain syndromes
- loco-motor system related libido problems

hormonal system

- all hormonal problems related to problems of the digestive, circulatory and nervous systems
- hormone level related behavioural and mood problems
- hormonal system related libido problems

sensory system

- diminished vision acuity
- diminished auditive and balance functions
- diminished tasting and smelling capabilities
- diminished tactile functions
- diminished temperature sensing



References:

Dr. Arturo O'Byrne is the most well-known medical doctor in Latin America and in other Spanish speaking countries due to his holistic teaching activities in many universities. After a long carrier in internal medicine and sports medicine he specialised in homotoxicology and orthomolecular medicine. In 2005 he initiated cooperation with Hippocampus and soon he also specialised in BRT. Since 2007 he became a distinguished professor in BRT and related topics. His clinic and several hundreds of other clinics in America and Europe use Hippocampus equipment due to his teaching activities.

Dr. Israel Finkelstein is a successful medical doctor who assisted in several countries in the introduction of specific kidney and liver transplant methods. When he learned about BRT and related applications in 2006, he took part in the education programs of Hippocampus and today he only works with BRT. His main focus is on different gerontological applications, including symptoms of Alzheimer's disease. Among some of the amazing fast recoveries, was the speech and gait recovery of the famous actor Rogelio Guerra.



Rogelio Guerra stared in many of the most famous Latin American television productions, he made more than one hundred movies and thousands of episodes in different series. Later, in his mid-70s developed Alzheimer's disease. His cognitive skills diminished so much that his speech became impossible for others to understand. Also, his gait became very slow and unstable; his quality of life was effected immensely to the point he had to stop work and had to avoid all social appearances. After living 2 years with those tremendous limitations Dr. Israel Finkelstein could help him: by administering daily BRT sessions and specific supplementation following Hippocampus' protocol. Within two months his gait was back to 85% and he could fluently speak Spanish and English again. Also, he participated in social events again, gave speeches and danced like in the past many hours. A year later he suffered a severe stroke; and as a consequence he completely lost muscle coordination for a few months, though, his speech and gait recovered again and at the age of 80 he can manage a relatively active life. Unfortunately he was unable to recover totally from his most recent stroke.

(2) sports medicine and performance enhancement

- recuperation after major workload
 - regeneration period after suffering micro injuries
 - during and after travelling, during and after flights
 - when changing time zones
 - when changing altitude above sea level
 - concentration and performance optimisation
 - movement coordination optimisation
 - emotional and mood challenges
 - circulation optimisation and elimination of metabolic waste materials
 - optimisation of muscle metabolic activities and micro-circulation
 - after major and minor injuries, bone brakes, contusions, bruises, etc.
 - during the rehabilitation period after major illnesses
 - preventative applications and immunization procedures
- pain management

• body weight management

• nutrient absorption and digestion related issues

Dr. Elvira Babindák:

Medical Director of the Hungarian Taekwondo Federation, recipient of the "Best of Sport Medicine 2012" award

"For the victory, it is not enough to work hard and have a good deal of natural inborn talent. Emotional and mental strength and long injuryfree periods are also needed for successful competition. Without optimal concentration, or due to a persisting small injury four years of hard work could be wasted and a medal lost. BRT stress management programs help athletes to give their very best, improve their decisionmaking capabilities, shorten their response times and increase muscle performance. BRT also helps to prolong injury-free periods despite of intensive training camps and competitions. I always use this method for reaching peak performance with my athlete."

"BRT became a part of my life. After experiencing the benefits, I use it every day"

Tamás Varga: waterpolo player Two-time Olympic Champion, World Champion

(3) physiotherapy

- during the rehabilitation process after long lasting illnesses
 - post-OP, post-trauma, and post-amputation rehabilitation
 - pain management, including fibromyalgia
 - during the therapy of functional loss in muscles and joints
 - during correcting muscular misbalance
 - diminished peripheral circulation related symptoms
 - optimisation of ADL factors (ADL = activity of daily life)
 - palliative care for diabetes-2 related symptoms
 - chronic degenerative diseases of the loco-motor system
 - auto-immune diseases related symptoms of the locomotor system
 - infection related symptoms of the loco-motor system

Dr. Darabosné Tim Irma teaches for over 25 years in the Department of Physiotherapy at Semmelweis University and for the last decade BRT is also in the focus of her activity: on her request the department purchased several Hippocampus equipment and uses them daily in the education.

"Also the professors and other members of the educational personnel at the university come with their aches regularly for BRT sessions to our department; it is userfriendly and efficient."

Ildikó Ács is the head physiotherapist and senior teacher for interns at the National Medical Rehabilitation Institute in Budapest, Hungary. She administers BRT for every patient at the department for the last decade and also lectures on major congresses about how to combine Hippocampus' BRT applications with conventional electro-therapy.

"I enjoy developing new combinations in physiotherapy applications and BRT gives me a lot of inspiration."





(4) stress management, life style and continuous distress related syndromes

- eating disorders
 - emotional distress related pain syndromes
 - emotional distress related neuro-endocrine syndromes
 - continuous sympathetic arousal related syndromes
 - sleep disorders
 - circulatory system related disorders
 - digestive system related disorders
 - work place stress management and performance optimisation
- weight management and anti-aging interventions
- management of life style related stress factors

Dr. Erzsébet Tusor is a holistic MD practitioner, originally specialised in rheumatology and physiotherapy, but after understanding the complexity of the development of chronic cases,

she also specialised on assessing the origins of each individual case. With

the help of her new specialisations in hypnotherapy and acupuncture she became capable to understand how personal emotional and life style related issues participate in the development of chronic disease and basically all adaptation syndromes. She discovered the application possibilities of BRT in all above mentioned fields and uses BRT with all her patients since 2005. "My patients feel relaxed and awakened after the BRT session; their personal stress management strategies just click into their place and start to work. They consider, there is a new phase of life after the BRT applications. My work became much easier and much more efficient since I integrated BRT into it."

Dr. Anna Pfeifenróth is a holistic MD practitioner, mother of five boys. She was originally specialised in clinical laboratory assessments, then understood that nutrition and exercise are of major influence on blood values so, she extensively studied diet and phytotherapy, specialised in traditional Chinese medicine (TCM), and later in physiotherapy. She uses BRT for more than 15 years, and she is one of the senior professors of Hippocampus.

"All my observations in the divers application fields of BRT tell me that BRT brings the organism in a state when endogenous regulatory processes start to work again. The clinical work support and matches the early research data, which convinced me to start to work with BRT. Hippocampus changed my professional life back in 2000-2001."

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(5) prevention

For the future, most important field of BRT applications is the immense field of prevention. Food and air quality, life style factors, light and noise pollution, the general toxic overload of the environment, all interfere with the organism's internal communication system and diminish its adaptation capability. Consequently, BRT offers the number one support of the organism: easy, completely non-invasive and helps to pay attention to all kinds of health hazards. Also, BRT is the only electromagnetic technology which does not invade the organism, instead, it supports the organism to focus on priorities. That is why it is highly advisable to use BRT as a preventative tool for

- stress management
- relaxation
- sleep and recovery optimisation
- anti electro-smog support
- digestive system support
- nervous system support
- loco-motor system support
- sensory organ support

Lenyo Lux Plus and Lenyo Mobile Port

Lenyo Lux Plus (LLP) and Lenyo Mobile Port (LMP) represent the completely updated versions of Hippocampus' first home units since the year 2000. LLP became computer controlled and preloaded with more than 400 protocols. Here also, the creation of new custom made protocols is possible as well as importing protocols from other users. All programs and protocols available on LLP can be downloaded to LMP.

> LMP can receive four protocols at the same time and provides the flexibility with the same signal quality as the bigger units. The small built-in antenna provides a shorter field radius but one can place the handy unit close to the target zone, most of the time placed into a pocket. Due to a handy software, users can trace the program download history and identify the LMP by its digital fingerprint.

> > C LENYO



Lenyo Fractal

The Lenyo Fractal device is the favourite of those who do not like to spend time with downloading programs to the LLP through the computer. Lenyo Fractal is extremely easy to use, because any of the 32 programs can be started with a single click. They cover the different areas of preventative health care and suit the general needs of a family. Lenyo Fractal is child-friendly and is safe and easy to use for all ages.

LENYO

Lenyo Meridian

Lenyo Meridian is the solution for those, who care for the functional activity of their bioenergetic

systems. Traditional Chinese Medicine (TCM) and Ayurveda based programs provide a wide range of applications. Also, TCM practitioners may use the **Lenyo Meridian** device for complementing their sessions to achieve a higher level of wellbeing.

Ultimately user friendly home units - the most easy way of BRT yourself!

Lenyo Fitness - for those, who overtax their body

- after a long day of work
- after unusually long physical activity
- after sport activities
- when joints and muscles ache
- as part of the preventative maintenance program

Lenyo Office - for those, who sit literally all day long

- lack physical activity and need circulatory support
- suffer from electro-smog and anxiety
- need more relaxation and a more efficient stress management
- need digestive support
- want to optimise their mental performance

Lenyo Sleep - for those, who wish to have

- a restful night sleep
- a quiet mind before going to bed
- switch off after work or studying
- abdominal comfort before going to sleep
- wake up with a lots of good energy

Lenyo Child - for young and elderly, who wish to achieve

- a more balanced tissue nutrition
- an optimal nutrient absorption
- great physical and mental strength
- optimal muscle coordination
- a positive emotional attitude
- permanent tissue rejuvenation

Lenyo New Born - for the first period of life

- while the baby adapts to its new environment
- while the digestive system finds its work rhythm
- when mother and child bond together

Lenyo Woman - for those, who wish to have

easy days even on those difficult days

- balanced emotional life despite of hormonal changes
 - good physical performance all year and all season long
 - optimal concentration and decision making capabilities
 - good night rest in all phases of the menstrual cycle
 - easy menopausal transition

Lenyo Yoga - for those who meditate and practice introspection

- to help gather attention and focus on inner processes
- to reach inner peace before and during yoga practice
- to help muscles and perseverance during meditation
- to help grieving process and emotionally difficult periods

Lenyo Mobile pocket devices serve to develop an active attitude towards preventative health care

Lenyo Mobile Prevention - for general daily preventative support with programs to target

- anti-ageing
- relaxation
- digestion
- circulation
- detox
- loco-motor system
- sleep and regeneration
- mental-emotional balancing



Lenyo Mobile Travel - for those, who travel

frequently or commute excessively

- during travels
- when relaxation is needed
- when needed to adjust to different environmental changes
- when time zone changes or weather changes overwhelm the adaptation capability
- when getting tired and exhausted
- when mood changes occur
- when the rhythm of digestion is disrupted
- when small injuries happen
- when everything aches
- when having difficulty to fall asleep

Lenyo Mobile Lady - for woman with self-esteem, who want to

- maintaining active, balanced and energetic life
- balanced emotional life despite of hormonal changes
- good physical performance all year and all season long
- optimal concentration and decision making capabilities
- optimise digestion
- maintain good muscle tone

Lenyo Mobile Sport - for those who like to be physically active

and maintain

- muscle performance
- good circulation
- performance optimisation
- optimal stress management and relaxation
- night rest and sleep comfort



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