



## **Instrumental Techniques in Holistic Medicine**

**By Gábor Lednyiczky:**

Intuition can be described as a 'perception', and has been experienced by most people to some degree. Intuition can be enhanced through practice, and the degree to which intuition can be helpful or deceptive can be measured through observation and analysis. In addition to intuition, all ancient human societies recognized a vital energy, referred to as a 'healing presence' or 'healing thought'. In modern society, most scientists and physicians have abandoned the direct use of vital energy as part of the healing paradigm. However, some scientists continue to recognize this energy, and have attempted to demonstrate its existence with the help of different devices. Modern measuring techniques now enable scientists to study self-controlling processes and cellular communication systems on the photon level. This intense progress in biophysics led to discovery of the interactions of vital processes previously described only by cosmological thesis. These advanced measuring techniques are bringing scientific validity to what the ancients understood through intuition. For example, electrophysiology has aided in understanding the working mechanisms of acupuncture.

The fact that the human body releases various forms of radiation is well known. Both electromagnetic (EM) and mechanical waves such as ultrasound (US), are used by conventional medicine for diagnostic and therapeutic purposes. Research into other electromagnetic frequencies, as well as more subtle energy emissions, is ongoing, and is likely to yield extremely useful information for both diagnosis and treatment. Energy research supports the holistic concept of health and wellness, which is linked to an overall, integrated model, where all organ systems, emotional, psychological and cosmic factors are working together in a balanced fashion. This is in contrast to the modern medical reductionist model, which attempts to evaluate a particular part of the organism without recognizing the integration of the whole. An example of this is a conventional medical in depth analysis of the gastro-intestinal tract, without ever asking the patient what they are eating, or what stress they may be under.

The use of bio-electric diagnostic techniques recognizes several underlying principles:

- self-organization and adaptive activity of biological systems are not linear
- interactions of physiologic processes can be understood through the examination of biological communication
- organisms can only be analysed within the context of their own environment, while recognising the dynamics of inter-communication with this environment
- the exchange of biological information is carried out primarily through electromagnetic (EM) and subtle energy information systems
- biochemical reactions are dependent on these energy information systems

Bio-electric analysis and treatment modalities incorporate the concept of 'resonance.' The word resonance originated from the Latin word *resonare* = rings back, and occurs when the frequencies of two separate systems are in harmony with each other. This term is often used to express an acoustic effect, and also refers to electromagnetic, emotional, morphogenetic and bio-information systems that interact with each other. There must be an appropriate medium between the systems in order to have a resonance-based effect: e.g. air, in the case of sound-waves, and EM fields for electromagnetic waves. Resonance communication is an integral part of all living systems, including the human body. An example of this is seeing or hearing. The eyes and ears are only able to receive a specific discreet range of frequencies and intensities, while all other signals outside of these limits will not be processed due to the lack of resonance. Substances which can act as 'medicines', will have a resonance with a given individual, which will yield a

signal that will help to balance any internal circuit that has become de-compensated, and is not functioning optimally, by bringing it back into resonant harmony.

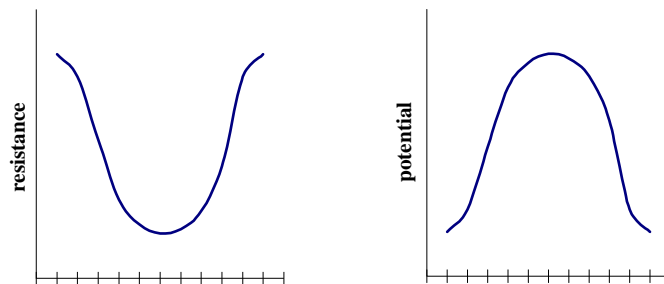
There are several efficient non-invasive diagnostic tools that have been developed according to these principles. Some of these have been used for years, with excellent results.

EAV – (Electro-acupuncture according to Voll)

Reinhold Voll (1909-1989) was a German architect, who was prompted by his own poor health to attend medical school. After graduating he worked as an anatomist, and then as a physician. In the last ten years of his life he carried out research on the electrophysiology of acupuncture.

In the 1950's Dr. Voll developed a diagnostic method that recognized separate organs as part of a whole, integrated system. He began to assess the bio-information emitted by the body in order to assess how well organ systems were functioning. The bioelectric device that Dr. Voll developed, surveyed blockages in the bio-information system by measuring the strength of the electromagnetic message running through specific test points. The most representative electro-physical measurements were taken on skin surface areas where electrical resistance was much lower than on surrounding areas.

### Diagram 1-2



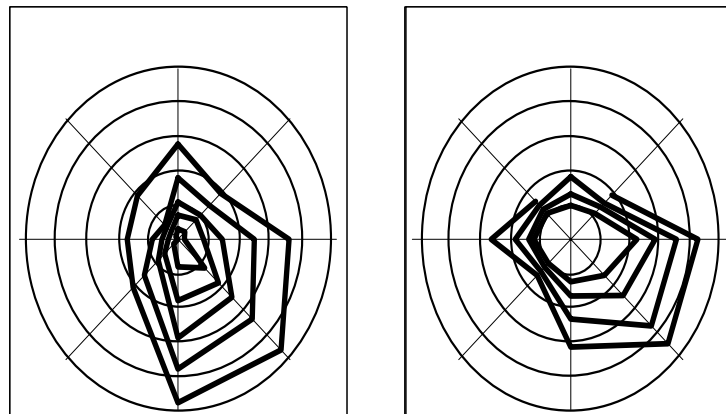
### Skin surface (mm)

These test points partly coincide with the classical acupuncture points used for over 5000 years in Traditional Chinese Medicine. They serve as a kind of 'gate' through which an organism's bio-cybernetic energy communicates with the external world. These points have a dual nature: they are useful for both gathering information, and for delivering treatments to the organs and organ systems that they relate to inside the body.



Although electro-acupuncture and functional bioelectrical organ testing use the technical terms 'electrically special' or 'electrically active point' (EAP), the area used for testing is not actually a 'point'. It is more accurately an area that has a diameter of approximately 2-3 millimeters (.08-.12 inch).

Diagram 3-4



Electrical conductivity map of the skin at acupuncture points

The systematic mapping of the skin's electrical conductivity has been researched through several stages. First, the acupuncture points were tested. Then the direct-current fields between different parts of the body were defined. This has been followed by the study of the polarization effects that emerge during the process of wound healing. ([Pierce MC](#), et. al. Birefringence measurements in human skin using polarization-sensitive optical coherence tomography. J Biomed Opt. 2004 Mar-Apr;9(2):287-91.)

Research is now focusing on a complex analysis of the organisms' electromagnetic (EM) field – measurements as small as 1-10 foton/sec./cm<sup>2</sup> can be detected.

### Operating principle of EAV Testing

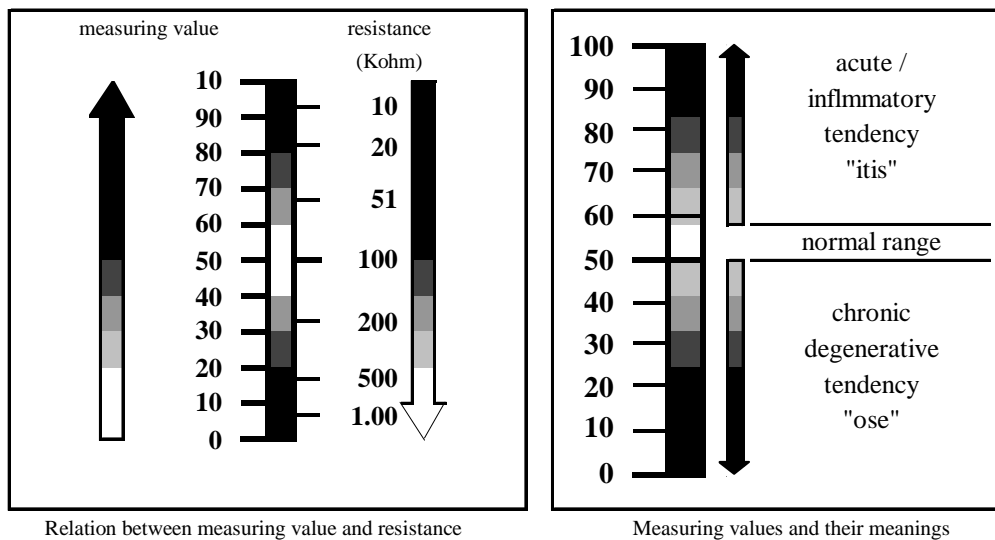
EAV testing is used to examining the reactions of the body to a low-voltage (usually  $U < 3V$ ) direct current load. The conductivity between EAP points and reference diodes are used to arrive at a measurement value. This allows the practitioner to take readings that refer to the state of affairs inside the body by measuring information on the skin through windows offered by acupuncture points. These points have an optimal electrical resistance in healthy subjects which is affected by changes within the body, as well as in the external environment. Each point is associated with a specific meridian, organ and body system. By measuring different points on a patient, it is possible to determine which organs are out of balance, and which treatments may



best be used to help to restore balance. Readings of 95k $\Omega$  (or equivalent) are considered normal, and are interpreted as a value of 45-55 by the measuring device. If the EAP's resistance decreases because of an acute disease process, such as inflammation, then its conductivity increases and the device shows a value higher than the normal value, and will read 55 or above. If, however, the area being analysed is suffering from a chronic, degenerative disorder, the information channels become blocked and damaged, which results in an increase in skin resistance and a lower conductivity, which lowers the reading to 45 or below.

The following diagram shows these relationships:

Diagram 5-6



## THE TESTING

EAV testing is accomplished by placing the tip of an electrode in the middle of the reference area (EAP), and pressing the electrode smoothly into the point. The testing technique must be practiced in order to be mastered, since the number generated can be influenced by the amount of pressure used to press against the patient's skin and other factors mentioned below.

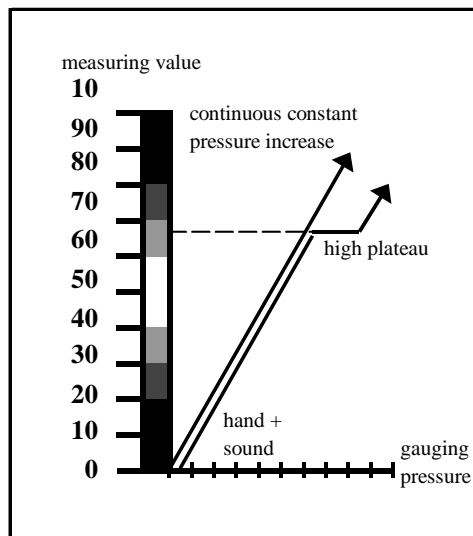
The following parameters influence the point reading:

- amount of pressure applied
- angle and placement of the electrode on the point
- humidity of the skin,
- general hydration condition of the patient
- environmental factors (ie. Electromagnetic fields in the test facility)



Therefore, the movement should be definite and square to the point but still careful enough in order to feel the plateau. When the plateau is reached, the value of the reading stays constant, even if the pressure of the electrode is increased.

Diagram 7



In addition to determining the balance or imbalance of internal organs, this testing technique can yield clues about the severity of the pathologic process in the affected areas. If the value of the plateau is unstable while the pressure on the detecting head is slowly increasing, it may indicate a severe imbalance which may not respond to gentle, natural therapies.

### TESTING FOR THERAPEUTIC AGENTS

EAV testing is a 'resonance test' which is extremely useful as an aid to the practitioner to help determine the underlying cause of the patient's illness. Each individual (as well as organ systems within an individual) has a specific limit to the degree to which they can 'compensate' for various stresses that the system encounters. If the system is stressed beyond this limit, there is a decompensation which can lead to illness, and external help is needed to re-establish balance.



Diagram 8: Normal Bio-cybernetic system

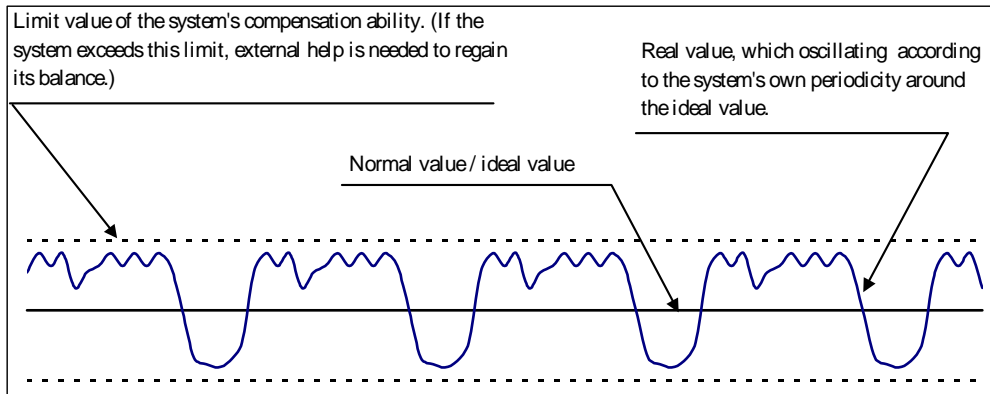
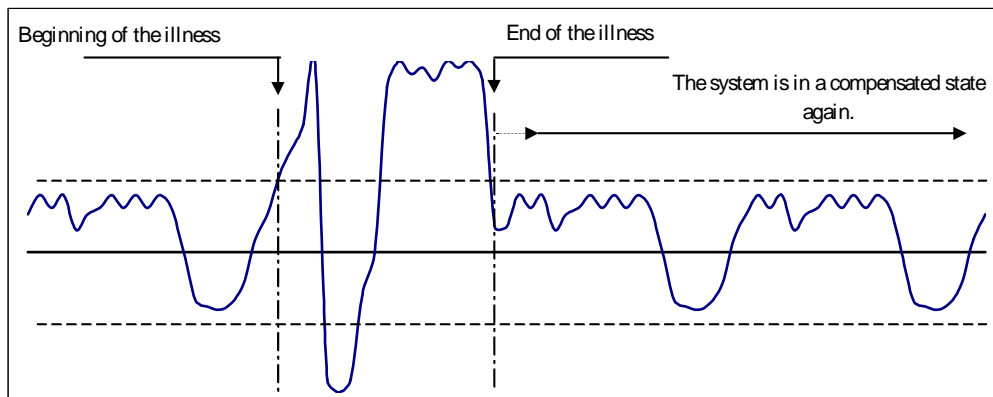


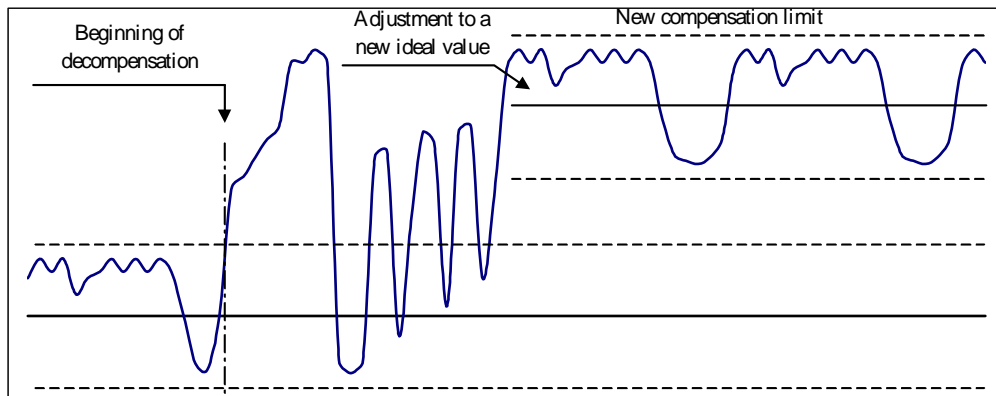
Diagram 9: Decompensation of a Bio-cybernetic system (illness).



After a decompensation due to stress or illness, the individual will often manifest a new normal value. This often occurs during a change in the life cycle, such as during menopause in women or decrease in hormone production in men. Other changes in the environment can also lead to a new normal value, such as moving to a new home at a different location or altitude (this changes the number of red blood cells).



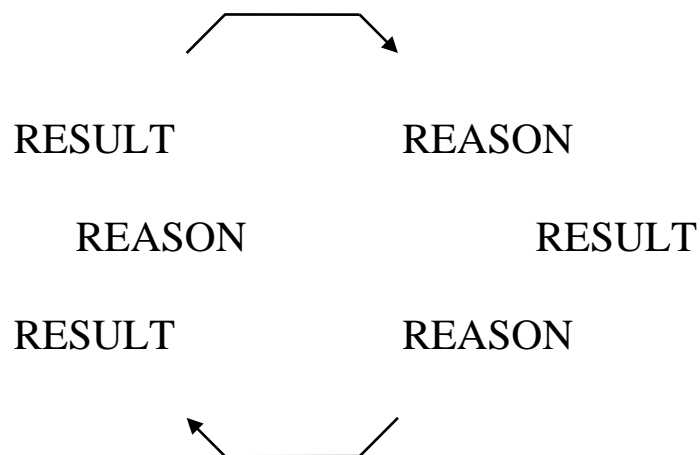
Diagram 10: Change to a New Normal Value



When we are working in the field of bio-cybernetics, the focus is on the inter-relationship between circular patterns that inter-react in a netted feedback loop relationship, with each system influencing the other, rather than a linear cause-effect approach.

Which factor is a 'reason' and which factor is a 'result'? This changes according to the point of view at any moment in time.

Diagram 11: Result and Reason Changes According to the Point of View



Since these systems are connected to each other, synchronous events often occur. Therefore, this form of testing can be useful in ascertaining which treatment or group of treatments may be useful for that individual to help rebalance the system. By placing a particular substance in the test circuit, an immediate change can be monitored in the system's compensation ability. The practitioner can then note which therapy most strongly brings the patient's system back into balance. The practitioner can also test to see how often and how much of the desired treatment should be utilized by that patient. Materials that can be tested for potential use for the patient include herbs, nutritional supplements, foods, and homeopathic preparations such as Sarcodes, isodes, nosodes and allersodes. In addition to these physical substances, specific electromagnetic signals can also positively effect an organism, by effecting the organism's regulating circuits through resonance. From a biophysical point of view, anything that brings a decompensated signal back into a compensated state, can be considered as 'medicinal'. The understanding of this interaction formed the basis for the development of Voll's testing and treatment techniques. The Law Of Hormesis may help explain this therapeutic phenomena.  
"How could we see the light if our eyes were not like the Sun?" - Goethe.

### LAW OF HORMESIS

Hormesis is a term used to describe a dose response phenomenon in which a low dose of a substance solicits the opposite effect of that same substance in a high dose. For example, in homeopathy, a very small dose of *allium sativum* or onion, will help to stop the same symptoms that are caused by interacting with a large dose of onions, such as tears and a runny nose. Often a toxic substance, or pollutant, will have the opposite effect in a small dose, than it has in a high dose. The mechanism that causes this observed phenomenon is poorly understood. One theory holds that a low dose initiates a compensatory mechanism in the body that offsets the damage that may be caused by a higher dose. This is similar to the effect seen with vaccinations.

The study of Hormesis began 110 years ago with Hugo Schulz's microbiological tests: in these tests Schulz noticed that a mushroom's vitality was increased greatly by smaller dosages of materials that usually have a deleterious effect (e.g. iodine, bromine, salicylic acid, chrome acid, silver chloride.) Later, together with psychiatrist, Rudolf Arndt, he framed the Arndt-Schulz law, which states that every stimulus which causes an effect on a living cell, initiates a biological response that is reciprocally proportional to the intensity of the stimulus. In other words, a substance which is toxic in high amounts, can be beneficial in low amounts. This same phenomena applies to radiation and other energy emanations. For instance, current research shows that low levels of radiotherapy can initiate adaptive protection against DNA damage, and



stimulate immune function. (**Feinendegen LE. Evidence for beneficial low level radiation effects and radiation hormesis.** Br J Radiol. 2005 Jan;78(925):3-7.)

Furthermore, Schulz believed that the use of low-doses of the appropriate, organ-specific material increases the vitality of certain organs to the maximum extent of their respective physiological limit.

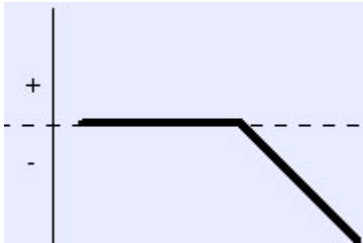
At the end of the 19<sup>th</sup> century another scientist, I. Hueppe, found similar results in his research with bacteria. In the 1920s studies about hormesis included the effects of low concentrations of toxic materials on several types of biological systems . Due to these analyses it was found that the theory of hormesis is a universal law and valid to every living being. In the 1940s, Soutman and Emrlim gave the name, 'hormesis' to the effect, after a Greek word which means "to increase". In addition, they defined hormesis as a “stimulating effect of a toxic material's dosage which does not cause inhibition on a living being.”

Observations about hormesis multiplied in the 1950's. Wilder established that the stimulating effect grows reciprocally, in proportion to the actual operating level of the respective organ. He also stated that due to individual variation, the meaning of "low-dosage", or "high-dosage" is different for everyone. Similarly, depending on the changes in the condition of a person, the same stimulus might be considered as a small dosage and later as a large or middle dosage, which may induce different biological effects. Hormesis is currently being re-investigated as a useful adjunct to anti-aging concerns, and can initiate the repair of metabolic pathways by repeated exposure to mild stress, which can lead to increased health and vitality in the senior years. (**Rattan SI, Clark BF. Understanding and modulating ageing.** IUBMB Life.2005Apr-May;57(4-5):297-304)

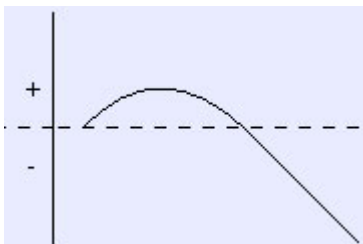


In the 1960s, Townsend and Luckey introduced four basic types of dosage-dependent reactions:

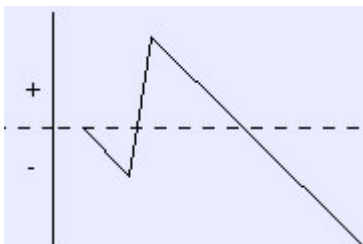
**A - increasing dosage causes a continuous increase in the toxic effect**



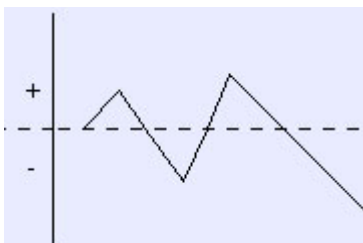
**B –increasing dosage causes a preliminary stimulating effect, followed by increasing toxicity**



**C –increasing dosage initially increases toxicity, followed by a stimulating effect, and later by increased toxicity**



**D – increasing dosage causes an initial stimulation, followed by increased toxicity, then stimulation, ending in a final toxic state**

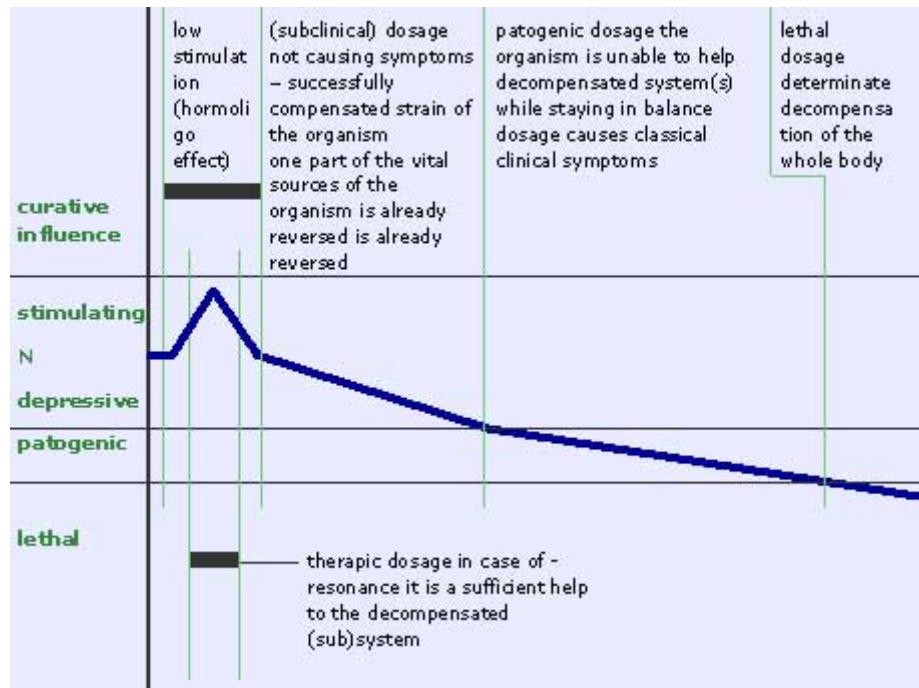


*The conception of hormesis was later expanded by Luckey:  
"every agent, physical, chemical, or biological, has a stimulating*



*effect if it is used in a dosage much smaller than that of the biologically detrimental dosage”.*

**Diagram 12**



*EAV and FEDT (Functional Electrodynamics Testing (FEDT) use micro-dosage formulations based on the hormesis theory, since adaptation can be generated by hormoligo (hormo = increase/stimulate, oligo = small portion).*

## DETERMINING THE REMEDY

When testing to determine the most appropriate remedy to use for an individual, the practitioner should choose an EAP point originally tested as too high or too low, indicating a decompensation, or imbalance in the system associated with that point. Then ampules of possible remedies can be placed within the circuit ( such as allowing the patient to hold the ampule), while the point is remeasured. The appropriate remedy will change the reading that was too high or too low to a normal reading.

Although this system is useful, it is extremely time consuming to test individual remedies in this manner. We have developed a computerized method which, while similar to the well established



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electromagnetic measurements of EKG or EEG, is able to measure thousands of potential remedies through the use of mixed diodes.

A 12-channel device developed in Hungary utilises this computerised method, and is a true breakthrough in holistic diagnostics: approximately 2000 materials can be tested on a patient in approx 5 minutes. The information from this test can help the practitioner determine the agents (stressors) disturbing the patient's metabolism, which areas are out of balance, and what therapies can be useful to help that individual. The procedure is called Functional Electrodynamic Testing (FEDT). It is similar to the EAV system, but has several advantages:

<b>EAV</b>	<b>FEDT</b>
<ul style="list-style-type: none"><li>○ Must be performed on a small skin area (EAP)</li><li>○ Analysis yields information only about the area represented by the EAP point</li><li>○ The only measurement parameter is the graph reading of the energy of the finger meridian</li><li>○ the measurement results are dependant on the tester's ability ,the exact placing of the measuring head, and the dynamics of the applied pressure</li><li>○ steady humidity of the EAP surface is very important to maintain</li><li>○ assisting measurements help to determine the result of the actual measurement, and may vary</li><li>○ provides direct information which can be used</li></ul>	<ul style="list-style-type: none"><li>● No need to place testing diode on specific EAP point</li><li>○ provides global information about the whole organism</li><li>○ provides more information on the dynamism of the adaptation process, a functionally more exact measurement can be achieved</li><li>○ automatic measurements once the diodes have been placed; not dependant on tester's ability; no errors arising from the measuring techniques</li><li>○ humidity of the skin under the diodes remains constant, or, if it changes, remains even under the diodes</li><li>○ after the first test phase the tester can access if further preparative treatments are necessary</li><li>○ direct information of the stressors that effect the individual, as well as their adaptive</li></ul>



in the therapeutic plan	tendencies, can be determined <ul style="list-style-type: none"><li>o provides direct information which can be used in the therapeutic plan, as well as the specific therapeutic signals that would be helpful to the individual as this time</li></ul>
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### Implementing FEDT

Detailed information can be determined about every component, organ and function of an organism by placing diodes on the extremities and the forehead, effectively monitoring biophysical and energetic measurements from at least 12 input channels. This kind of measurement provides an *in vivo* spectroscopic analysis of the living organism as well as extracting functional data regarding the organism's activity under real circumstances. FEDT is, therefore, a dynamic measuring technique which gathers information from 12 input channels, analyses the data through a sophisticated computer analysis, and displays the outcome on a video monitor.

This testing method helps the practitioner to select the most useful therapeutic interventions for a particular individual. Treatments can be focused on the areas of the body that were shown to be imbalanced during the testing phase. In the case of a patient with multiple organs and systems that are out of balance, testing can help the practitioner to prioritize the many treatments that the patient may need, so that the correct treatment modality that will be useful at *that particular time* can be instituted before another treatment phase.

If the patient demonstrates extreme hypo(low) or hyper(high) readings, then a short course of pre-treatment may be useful, while the FEDT testing is postponed to a later date.

Below are examples of graph results that may be assessed to determine the normalisation state prior to full FEDT testing:

**Diagram 13:** Normal distribution curve – middle peak of the curve indicates normal integrity, while two sides of the curve show that the level of adaptive ability is satisfactory.



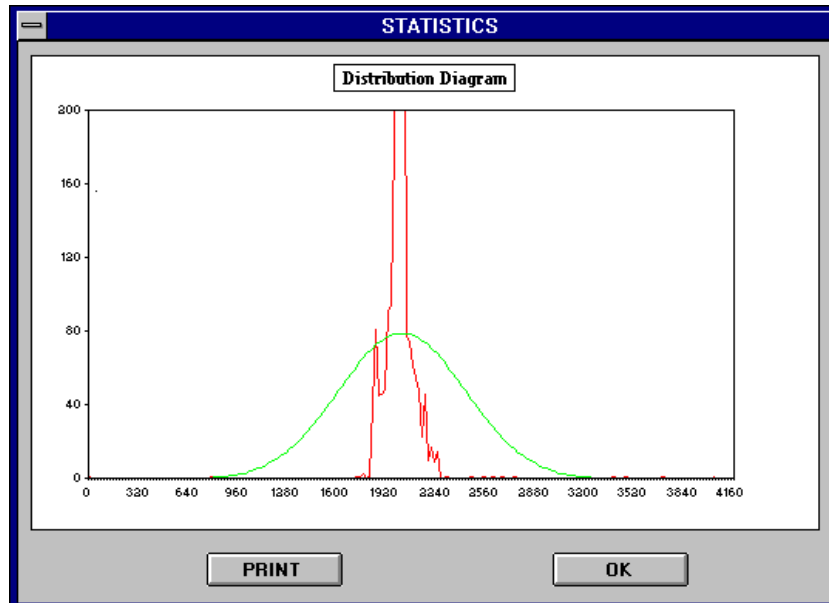
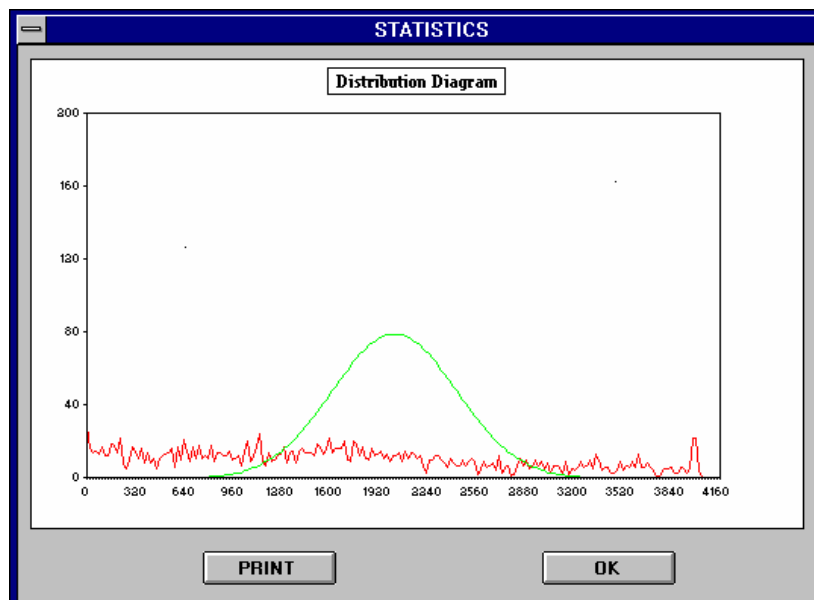


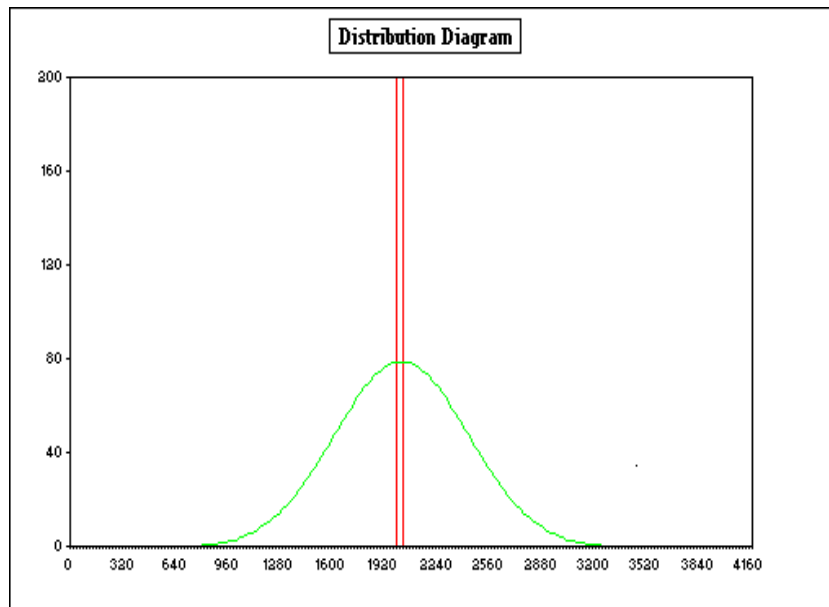
Diagram 14: extreme hyper distribution curve – This indicates an active case that may be seen in a poly-allergic patient. Preliminary treatment should be focused on eliminating the general decompensation pattern. Detoxification treatments and/or elimination of the stressors (e.g. antigen) would be indicated.



Distribution diagram of a hyper-state patient



Diagram 15: hypo distribution curve – indicates decreased adaptive ability, or a blocked state - note the side wings. As a preliminary treatment, short two or eight-minute treatments with delta and theta waves (0-8 Hz) is usually adequate. The device contains a separate program for this purpose.



Distribution diagram of a patient with reduced adaptive ability (hypo).

The normalisation measurement is very important since evaluation of the changes in the adaptive tendencies of a patient with decreased regulation ability is different from that of a normal or hyper-state patient.

After completing the normalisation measurement, a more pinpointed measurement sequence follows. The automatic testing performed earlier already indicated certain substances that illicit a positive response for that individual. This next testing phase helps to determine the order of the



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importance of stress factors impacting that individual, as well as determining the best therapeutic plan in his/her case. For someone who is basically well, the focus would be to enhance the self-regulating mechanisms of the organism. As the condition of an organ or system is found to be more severe, treatments may vary from nutritional interventions, herbal therapies, homeopathic remedies, electronic treatments or, if indicated, mainstream medical care,.

Diagram 16: Example of a positive adaptation test – The test substance is a microdose of paprika. In this individual, the graph indicates the generation of a high-intensity regulating process. This means paprika is a stressor to this individual, and the person is hypersensitive or actually allergic to paprika.

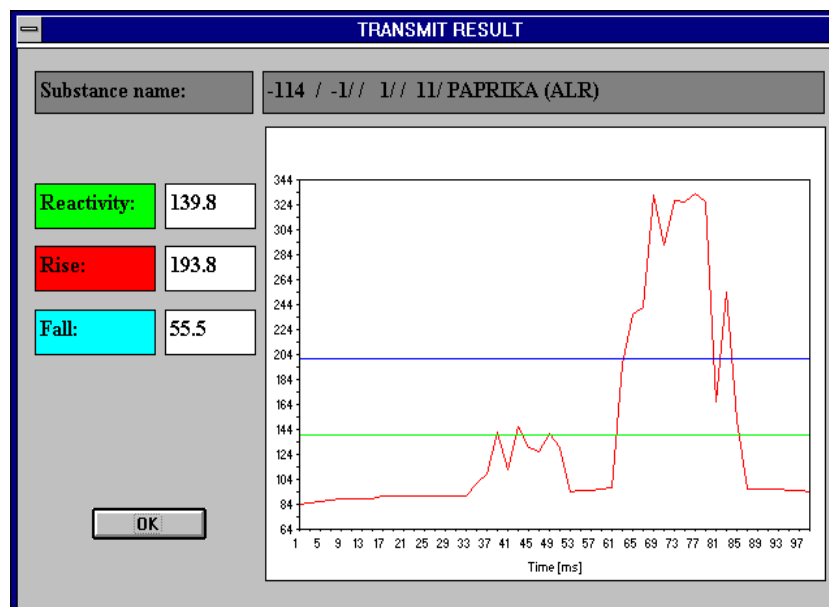
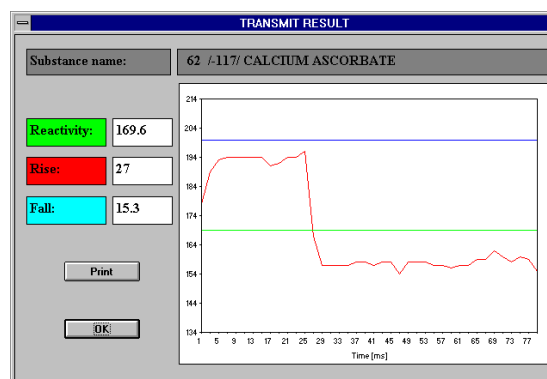
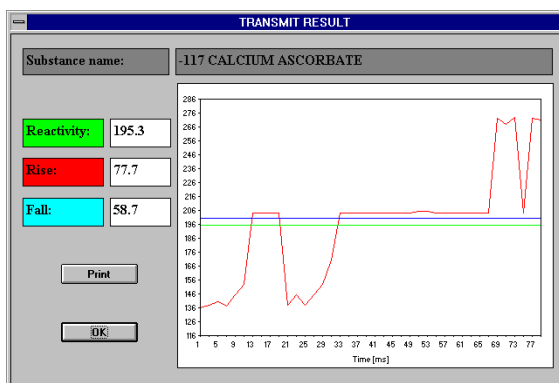
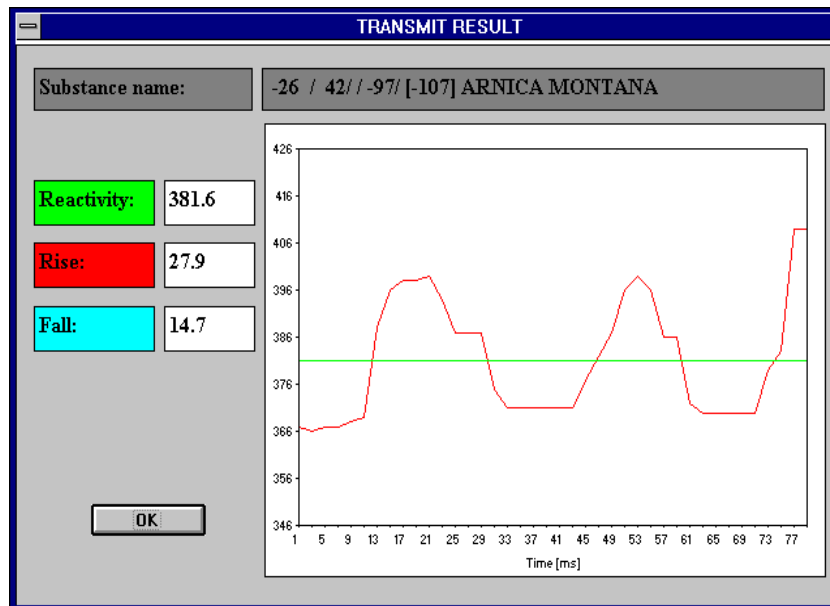
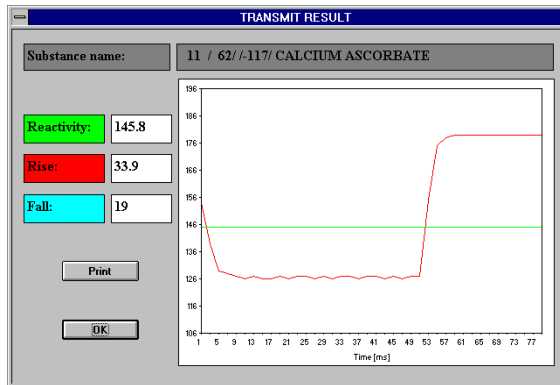


Diagram 17: similarly to EAV, the FEDT method can also be used to test which homeopathic materials and potencies, as well as which nutritional substances, generate the most intense reaction from an organism.





Diagrams 18-20: We can conclude the role of certain substances in the individual's metabolism from the dynamics of the adaptive test curves; in this case, the results indicate a lack of calcium.

In addition to homeopathic and other nutritional substances used as remedies, frequencies generated by a device can also be used therapeutically. The concept of "isotherapy" can be used to refer to this specific kind of frequency treatment. In isotherapy, the same factors that cause an imbalance or illness, are given back to the system. This often enables the organism to ward off the illness. Similarly, in frequency treatments, an endogenous signal that is given off by the individual is used as a treatment, as a 'feedback' frequency. This method ensures the most individualized treatment resulting in the elimination of sub-clinical states (ie. conditions not causing clinical symptoms as yet). It can also be effective in the healing process in situations that often cannot be helped by other kinds of medicinal interventions.



### **BRT: BIORESONANCE THERAPY**

Bioresonance therapy is based on the mechanism of bio-feedback. Bioresonance uses electromagnetic signals that are released by the organism, or one of the organism's systems or organs, to generate a treatment frequency.

BRT considers organisms as cybernetic systems or self-regulating circles that continually attempt to adjust their own frequencies to ideal values. This is the concept of adaptation. Since both the internal and external environment of a living system constantly changes, perpetual adaptation is essential.

Cells normally go through 7000 chemical reactions per second, which is an indication of the complex and continuous process involved in adaptation. This level of complexity is beyond the scope of simple biochemistry. Modern measuring techniques have increased the understanding of electromagnetic bio-communication at the photon-level, measuring detailed resolution operating mechanisms that make the co-ordination of the living system possible. (**Beebe SJ, Blackmore PF, White J, Nanosecond pulsed electric fields modulate cell function through intracellular signal transduction mechanisms. *Physiol Meas.* 2004 Aug;25(4):1077-93.)**

### **INTERNAL AND EXTERNAL PACERS:**

Each individual's metabolic processes and adaptive mechanisms are governed by both internal (endogenous) and external (exogenous) pacers. Internal pacers provide biochemical reactions with rhythm, while external pacers (ie. Geomagnetic fields, planetary influences, signal sources, etc.) effect the internal pacers. Signals emitted between cells, which ensure accurate data transfer



at a relatively low level of energy consumption, are coherent. The coherence of these intracellular messages permits organisms to be able to maintain order and integrity, even though the intensity from the signals generated by the outer environment is much higher than the internal biological control signals. A further characteristic of the inner pacers is synchronicity, which allows larger biological units (e.g. organs) to organise the activity of their cells.

### **NATURAL SELECTIVITY:**

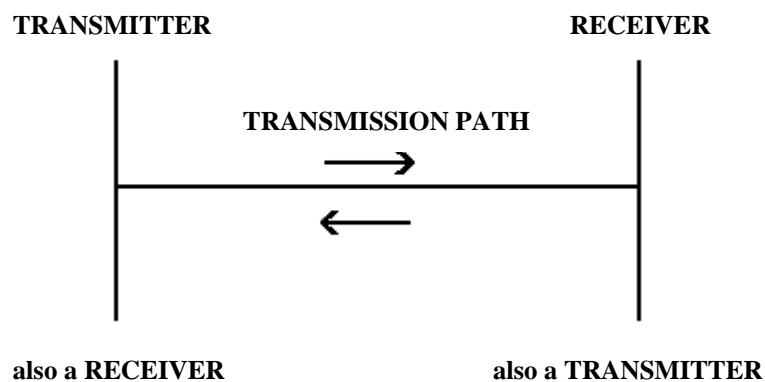
In order for an organism to adapt to the environment, there must be a process through which only some of the overwhelming amount of incoming signals can be 'selected'. In bio-communication, signal filtering is achieved through the biological window. This window is called the "Adey-window", and was described by Dr. Ross Adey. Dr. Adey researched and published extensively on a variety of topics, including electromagnetic field interactions with biological systems, cell membrane organization and intercellular communication, organization of cerebral systems and cellular mechanisms, bioinstrumentation and bioengineering, computer applications in medical imaging, physiological data analysis and the modelling of brain mechanisms and systems. He discovered that these 'windows' are discrete and definable, with exact limit values. Certain frequency ranges are typical to a given system. Achieving communication between cells is dependant on the cell membrane's ability to detect and facilitate transductive coupling of oscillating electromagnetic fields, through the activation of intracellular systems that amplify these specific signals. Only biological windows that are active at a given moment can be used in information transfer and encourage adaptive activities. Alteration of biological windows within a given system is called phase change, and also results in functional changes.



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If the natural selectivity system does not function optimally, it will have a negative effect on the information processed and, consequently, on the adaptability of the organism, or a system within the organism. This can lead to a variety of functional disorders. In order to return the organism to a balanced state, a correct biological information flow must be established. Bioresonance testing provides valuable information about imbalances in the electromagnetic signalling system that can lead to states of illness and disease. In addition, the information can be used to develop the appropriate therapeutic solutions.



### SCHEMATIC DIAGRAM OF BIOCOMMUNICATION

Diagram 21: Every biological unit has communication connections with its endogenous and exogenous environment, and acts as both a transmitter and a receiver. The quality of the signal transfer depends on the condition of the intercellular substance.



## BIORESONANCE THERAPY (BRT)

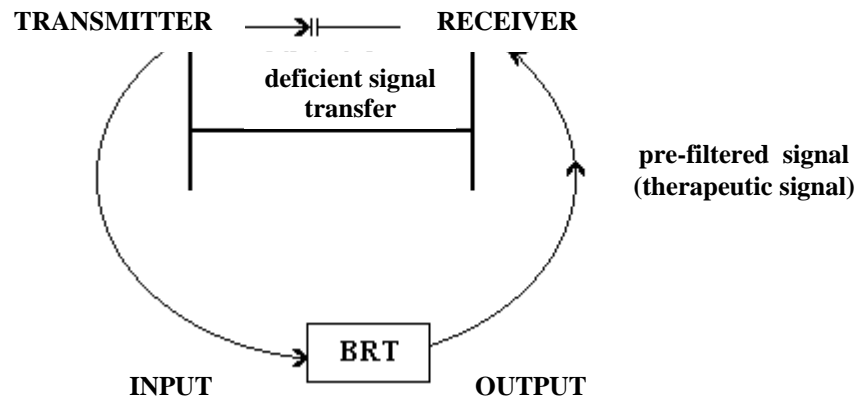


Diagram 22: BRT therapy helps to supplement any deficiency in appropriate signal transfers. The appropriate information always exists, but sometimes cannot be processed adequately because the transmission path is blocked and/or the detecting ability (natural selectivity) of the receiver is insufficient.

### SCHEMATIC MODEL OF BRT IMPLEMENTATION:

1. BRT aids the transfer of therapeutic signals by increasing the exchange of information between reflex areas on the surface of the body with corresponding internal systems (ie. neurologic, electrophysiologic, etc). Decreased natural selectivity can be compensated for by a pre-filtering process which increases the accessibility of the biological window.



2. BRT can help to eliminate signals that are not needed by the organism. BRT accomplishes this by creating a standing wave that calls the organism's attention to the disturbance. In this case there is an immediate drop in the signal, which causes the organism to compensate for the disturbance. The organism can ordinarily accomplish this on its own. However when an organism's vital resources have already been reduced, it is likely that several different decompensating stress factors have already had an impact. In this case BRT can be particularly useful to re-establish balance and adaptation.

### ELIMINATING THE PATHOLOGICAL SIGNAL

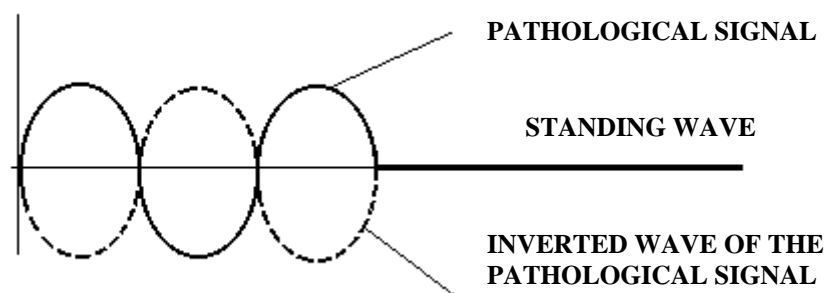


Diagram 23: by inverting the phase of the pathological signal by  $180^\circ$ , bioresonance therapy eliminates the signal source causing the negative effects. This increases the organism's ability to receive appropriate signals.



## **THERAPY WITH EXTERNAL PACERS – MULTI-RESONANCE THERAPY OR EXOGENOUS BRT**

Environmental signals that help balance internal (endogenous) pacers are vital to maintain the periodicity of our metabolism. Positive outer environmental signals can include natural sounds, such as wind through the trees, bird songs and ocean waves, along with the inaudible emanations of energy emitted by nature. A lack of these kinds of positive outer signals can cause serious pathological disorders by depleting the organism's own system specific vital resources. Artificial signals produced by urbanization and technical civilization reduce the intensity of external pacer signals available for an organism. In addition, artificial EM fields (sound of cars, electricity, cell towers, satellite emissions, etc.) modulate and interfere with the natural environmental signals of the biosphere; thus organisms receive more negative than positive signals.

Therapeutic application of positive signals through the use of Bioresonance technology is one of the most efficient forms of treatment, since it helps to correct internal pacers which, in turn, activate vital processes. This type of treatment includes techniques which use fundamental vibrations of the biosphere (e.g. structure vibration of Schumann-waves, crystals, minerals, different kinds of metals, polarised light and its harmonics) as therapeutic signals, and positively impact the organism through modulated electromagnetic fields. Integrating many of these positive signals into a complex multi-resonance treatment has been found to be profoundly effective.



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When administering an endogenous BRT treatment, it is very important to expose only the given reflex zone to the treatment frequency. However, in exogenous BRT, the entire body can be treated. Natural selectivity of the organism tends to concentrate healing modulations where they are most needed by the body or body system. Experimentation has proven that in patients who are suffering from chronic conditions, low vitality or fatigue, devices emitting such signals can help to eliminate even stubborn bioinformatical blockades. Conventional medicine is beginning to appreciate the effects of electromagnetic fields in specific health conditions, such as: melatonin production and its possible role in breast cancer; EMF therapies for Parkinson's and other neurodegenerative diseases; the ability of free radicals to accelerate various oxidative stress, manifestations of aging; the crucial role of nitric oxide in carcinogenesis, regulation of blood flow in smaller vessels, and mediating the effects of various drugs. Electromagnetic fields are actually double-edged swords that can both harm and heal, - depending on many measurable parameters, including frequency, amplitude and phase.



### **The features of BRT:**

- There are two types of BRTs: endogenous therapy, e.g. using the organism's own signals, and exogenous therapy which utilizes environmental pacers.
- During the BRT, prefiltered pacing signals are emanated to the organism.
- In endogenous BRT, signals originate within the organism itself, in order to improve inner informatic processes as well as adaptation
- Filtering is necessary due to decreased natural selectivity, and to support the organism's signal recognition ability.
- The main technical parameters of the endogenous signal include: frequency, amplitude and phase.
- Endogenous BRT is the most recognized individual therapeutic method: it uses the patient's own signals and constantly monitors the patient's reaction to the therapy. This diminishes the possibility of any kind of adverse reaction.
- Exogenous BRT uses environmental signals essential for the harmonic operation of internal pacers for therapeutic purposes.
- Both in endogenous and exogenous BRT the natural selectivity of the individual organism determines which signals are used, and can only be achieved through resonance with the biological windows.



## SCIENTIFIC GROUNDING OF BRT

Biological adaptability continues to be investigated in scientific literature. (example: [Lee DY](#), [Fan LT](#), [Park S](#), et. al. **Complementary identification of multiple flux distributions and multiple metabolic pathways.** Metab Eng. 2005 May;7(3):182-200.) According to these investigations, the following conclusions can be made:

- every biochemical process is controlled by an electromagnetic inner signal transmitter at cellular level
- every anatomic unit/pathological process has its own typical and unique frequency range, and can be influenced through the wave-length and amplitude pertaining to this frequency range
- pathogenic reactions such as allergies can be provoked by vibrations (electromagnetic and mechanic waves). These kinds of conditions can be aided by the appropriate vibrations
- there are periodic connections between frequencies that generate, compensate and neutralize certain symptoms
- BRT can support the immune system as well as nutrient assimilation through tissue-specific stimulation
- BRT testing methods help to determine the organism's self-regulating processes (pacer signals), as well as which stressors (chemical and electromagnetic agents) might be resulting in chronic or acute symptoms
- BRT delivers the vibrations of a certain agent to accomplish stressor-specific treatments



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- Clinical experience with BRT indicates that it is both a diagnostic and therapeutic technology. It is non-invasive and has an extremely low incidence of adverse effects. If a patient OVER uses BRT , it may be possible to experience transient fatigue, although this rarely occurs.



### REFERENCES:

- Adey W. R.: "Tissue interactions with nonionising electromagnetic fields", *Physiol. Rev.*, 1981, vol. 61, p: 435.
- Adey W. R.: Frequency and Power Windowing in Tissue Interactions with Weak Electromagnetic Fields. Proceedings of the IEEE, 1980, vol. 63, no. 1, p. 119-125.
- C.W. Smith. Coherence in living biological systems. *Neural Network World*, 1994, 3, pp. .379-388.
- Capra F., Steindl-Rast D: *Belonging to the Universe: Explorations on the Frontiers of Science and Spirituality*. Harper Collins N.Y. 1992.
- Del Giudice E., Doglia S., Milani M.: Order and structures in Living Systems, in *Nonlinear Electrodynamics in Biological Systems*, Ed. by W. Ross Adey and Albert F. Lawrence, Plenum Press: New York, London, 1983, pp. 477-488.
- *Electromagnetic Bio-Information* (Popp F.-A., Warnke U., König H.L., Peschka W. Eds.) Urban & Schwarzenberg, München- Wien- Baltimore, 1989.
- Fröhlich H., Kremer F.: *Coherent excitations in biological systems*. Springer, Heidelberg, 1983.
- Fröhlich H.: Proc. Int. Seminar on "Biophysical Aspects of Cancer". Charles University, Prague, 1987, pp. 81-84.
- 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.



## Instrumental Techniques in Holistic Medicine

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- Koshel V., Sakharov D., Waeiserman A., Lednyiczky G. (1995) Biological EMFs cause considerable changes in the viability of the heat shock treated chrysalises of *Drosophila melanogaster*. Abstr. Scientific Advances in Complementary Medicine. COST-4, Padova
- G Lednyiczky, J. Nieberl, Zhalko-Tytarenko O.: Endogenous Electromagnetic Oscillations Support Natural Integrity. Abstract Book of the 18<sup>th</sup> Annual Meeting of BEMS, Victoria, British Columbia, June 9-14, 1996.
- G Lednyiczky, J. Nieberl; Biological Resonance and the State of the Organism - Functional Electrodynamical Testing. Potentiating Health and the Crisis of the Immune System (Mizrahi A. Editor) Plenum Press, New York and London, 1997.
- G. Lednyiczky, Osadcha O.; In-vitro-Modulation der Phagozytose durch die BICOM-Technologie. *Acta medica empirica*. v. 43, n. 3a. 1994. p. 184. (in German)
- G. Lednyiczky: Voll's diagnostics. *Komplementer Medicina*, March, 1998.
- G. Lednyiczky: Biological information management. *Komplementer Medicina*, April, 1998.
- Rossmann H.: *Organometrie nach Voll*. Haug Verlag, Heidelberg. 1988.
- Z. Simor, E. Nagy: Status indicator – actual picture. *Látlelet*, 1996./6. p.9.
- Schumacher, P.: *Biophysikalische Therapie der Allergien*. Sonntag Verlag, Stuttgart 1994.
- Schumacher, P.: *Allergien gegen Tiere sind heilbar*. Sonntag Verlag, Stuttgart, 1996.
- *Ultra High Dilution: Physiology and Physics* (Endler P.C. and Schulte J. Editors) Kluwer Dordrecht, Boston, London, 1994.
- Vill H.: *Vom Impuls- zum Decoder-Dermogramm*. Haug Verlag, Heidelberg, 1982.
- Weaver R.A.: The Circadian multi-Oscillator System of Man, *Int. J. Chronobiol.*, 3, 1975, pp 19-55.



- Weaver R.A.: The Electromagnetic Environment and the Circadian Rhythms of Human Subjects. In: Grandolfo M. et al. Biological Effects and Dosimetry of Static and ELF Electromagnetic Fields, Plenum Press, New York, 1985.
- Zhalko-Tytarenko O., G. Lednyiczky: Bioresonance-induced tunnelling in serum albumin. XXV Congress of the Internat. Soc. Hematology. La Revista de Investigacion Clinica, Suplemento, Abril, 1994, pp. 303.

### DEVICES:

#### THE LENYO

The Lenyo™ is a low intensity pulsating magnetic field emitter, which stimulates functional activity of the targeted tissues. Its effect is non-invasive and non-thermal.

It is portable and battery operated and can be used during work, while driving, commuting, watching TV/movies and during most daily activities. The Lenyo™ will not distract or disturb the user or anybody in his/her surroundings.

Resonance based communication tools are used regularly by most people. These include: mobile phones, TV, radio, microwave ovens, etc. Also, modern medical laboratory equipment works via the use of resonance-based interaction, such as spectrum analyses of blood and urine. These kinds of measurements are based on the resonance between the electromagnetic waves emitted by the measurement device, and the measured system itself.

Every biochemical reaction is controlled by bioinformatic processes, which have specific frequencies. Example: immune cells can be activated by a specific frequency of a modulated magnetic field.

All Lenyo™ devices emit complex wave packages. The application dosage is measured in cycles, and each device is pre-programmed with the complete required application dosage. Once the Lenyo™ is activated a series of subprograms start to run. When a cycle of this complex program is completed, the device will automatically switch off.



The **Lenyo™ Mobil Device** is a *wellness device* which emits a pulsed magnetic field in order to facilitate the self-healing capability of the organism, and can be used as part of a holistic approach to overall health and wellness. It is suitable for home care application, in combination with any other preventive or rehabilitation method. This device is portable and can be applied at home, during work or while commuting.

This device can be used to support bone and tissue wellness, for better performance during work and sports activities, enhanced removal of metabolic wastes, and for faster recovery. It is also useful in anti-aging strategies, promotes digestive health, enzyme production and intestinal motility. Many people have reported benefits for managing chronic pain conditions and for boosting the function of the immune system.

The most common applications of the **Lenyo™ Lux Device** :

- To support bone and tissue wellness
- Rehabilitation after bone fractures
- Immune system stimulation, activation of phagocytosis
- Modulating inflammation
- Wound healing
- Digestive health, stimulation of enzyme production
- Detoxification
- Muscular regeneration
- De-stress, both physical and mental
- Facilitation of tissue and organ regeneration



### Mobile Cell-Com® (MCC)

**This high fidelity lap top size device delivers BRT therapy through the application of the organism's own (endogenous) control signals.**

MCC is the most up-to-date bioresonance therapy device. Its accuracy of signal processing is unique, and delivers from 10.000-1.000.000 times better frequency treatments than can be achieved with former BRT devices. This is possible due to a superior filter system and a newly invented phase modulation technology.

MCC works with the endogenous information of the treated organism, thus providing the most personalized treatment possible. It captures the organism's bioinformatic control signals with special multilayer magnetic electrodes and filters out the information content of the biological window which needs correction. Through the output, it provides the necessary treatment signals proper to the actual state of the organism.

Application of BRT with the MCC is extremely user friendly:

- Simple program operation
- Possibility to compose the entire treatment session in one step
- Easy electrode placement – no need to remove clothes
- Short therapy sessions
- No pain; no uncomfortable sensations of any kind

Endogenous BRT provides a new dimension of therapeutic possibilities for both acute and chronic health challenges:

- Allergy treatment
  - Application of antigen specific signals
  - Meridian programs
  - Specific programs for allergy related mycosis, super-infections and intestinal flora normalization
- Detoxification



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- Substance specific detox possibility
- Organ and tissue specific detox possibility
- Scar regeneration as cosmetic therapy
  - Normalization of the electro-physiologic properties of injured tissue.
  - Treatment possibilities of old scars with non-complete regeneration
- Potentiation of the immune system
  - Supports immune cell activity
  - Facilitates white blood cell production
  - Promotes the digestive process and the status of the large intestine
- Growth normalization during childhood development
  - Harmonizing bone growth
  - Optimizing the activity of the nervous and glandular systems
- Hormonal balance
  - Adolescent, adult and menopause hormonal balance for women
  - Special programs for androgen problems
  - Programs for prostate enlargement
  - CNS related hormone regulation imbalance
  - Endocrine gland related hormonal imbalance
  - Skin related hormonal imbalance

MCC is superior to former devices in terms of safety and applicability:

- Safety:
  - Battery operation(12V) eliminates any possibility of electric shock



- Infra red connection (IRDA) with the computer (needed for program selection) eliminates the need for any special safety transformer
- Applicability:
  - Multilayer electrodes provide a better signal transmission which allows for easy, standardized electrode settings.
  - Removal of clothing is not required, making the treatment easier for handicapped and religious people.
  - Portability, MCC is light and portable, which facilitates its use at areas where no electric connection is available.

### **Summary**

*MCC technology has opened a new chapter in the book of individualized treatments. This device allows for biophysical and biochemical guidance to help the practitioner determine the status and most beneficial treatment priority for important organs and tissues. It allows the practitioner to intervene in the biological system at the deepest causal level known; the electromagnetic control level of bioinformatics.*

*MCC is a portable, battery operated lap top size bioresonance unit which applies endogenous signals to the treated organism. It features 543 different treatment programs which allow for the fine tuning of different metabolic processes. This unit is superior to other bioresonance devices, due to an enhanced accuracy of signal filtering and transmission, broadest applied frequency range and easy software operation. It is also excellent value, being available at a competitive price. The MCC is an attractive and extremely useful tool for all health care professionals.*

