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The Science Behind Bioresonance

Traditional methods in BioResonance were developed in the late 1970s by a German physician named Dr. Fanz Morell [1]. Similar to other electronic medical devices, BioResonance is a safe and gentle, non-invasive alternative therapeutic technique designed on the premise that all particles of matter generate electromagnetic energy. In humans and other animals, this electromagnetic energy is continually resonating out from the body in oscillations of varying wavelengths and frequencies, which can be detected, amplified, graphed, and examined.

Electronic therapeutic devices — including ultrasounds, electroencephalography (EEG), and Bioresonance – are all designed to detect and record these oscillating electromagnetic waves. EEGs, in particular, operate in a similar fashion to Bioresonance. More specifically, the cells of the brain communicate with each other and other parts of the body through electrical impulses sent along electronically excitable cells known as neurons. The EEG is a non-invasive procedure that measures this electrical activity of the brain through the use of small metal discs placed on the surface of the scalp, called applicators. Brain waves are then detected, amplified, and displayed as a graph on the monitor. These waveform graphs are then evaluated for any abnormalities.

Bioresonance operates in a similar fashion, using non-invasive techniques to measure the electromagnetic oscillations of various areas of the body and explore for potential disease or illness in the form of abnormal wave oscillations. Healthy functioning cells and organs tend to emit harmonious wavelength oscillations that fall between 10Hz and 150kHz [2]. When illness or disease is present, normal cell and organ function is obstructed, the resonance of harmonious electromagnetic oscillations is impeded, and, thus, disharmonious electromagnetic oscillations are emitted. Pathological oscillations that are likely to be indicative of disease or illness can be quantified using a computer program, which uses an algorithm to compare wavelengths and frequencies to pre-existing measurements gathered from unhealthy cells and organs [3].

Since its emergence in the 1970s, Bioresonance techniques have been used globally, in countries such as Australia, Asia, Europe, New Zealand, and Russia, to diagnose disease and to promote healing by normalising the body's unique electromagnetic characteristics and frequency patterns. Given that the technique is non-invasive and not linked with any potential side effects, it has become increasingly popular as an alternative tool for aiding in diagnosis. Bioresonance testing has been used diagnostically to identify various allergies, asthma, and eczema (i.e., atopic dermatitis) [3,4].

Bioresonance techniques can also be used therapeutically. The concept of using electromagnetic energy to diagnose and treat disease and illness emerged early in the 20th century [5]. It is based on the assumption that externally applying electromagnetic energy could correct altered electromagnetic frequencies or energy fields within the body that have been linked with the presence of disease.

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This procedure involves separating wave patterns into groups of either a) harmonious, or healthy, electromagnetic oscillations, and b) disharmonious, or unhealthy, electromagnetic oscillations. The harmonious oscillations may be gathered and amplified, prior to rerouting them in a comfortable and safe way back into the body. The purpose of this procedure would be to boost and strengthen existing normal and healthy cell and organ function [1]. Conversely, disharmonious oscillations may be gathered and then flipped upside down using an electronic mirror circuit. This upside down, or inverted, wave then combines with a disharmonious wave and “cancels out” its negative impact on the individual and the body.

Evidence from studies examining the therapeutic impact of electromagnetic fields is promising and provides support for the potential benefits of Bioresonance in the promotion of healing. More specifically, pulsed electromagnetic fields, which uses alternating electrical fields to create a flow of pulsed energy, have been used to successfully treat osteoarthritis and to promote healing within fractured bone tissue [6, 7]. Further, radiofrequency ablation, which applies high frequency energy – usually between 460 and 550 kHz — to soft tissue causing heat-induced necrosis (i.e., cell death), has been used to treat colorectal cancer, breast cancer, hepatocellular carcinoma (a common form of liver cancer), and surgically unresectable metastases [8].

Certain frequencies of electromagnetic energy have also been identified as important. Findings from laboratory and clinical trials have suggested that certain spectrums of radiofrequency electromagnetic energy can have antitumor effects in treating hepatocellular carcinoma, breast cancer, ovarian cancer, thyroid cancer, and glioblastoma multiforme (an aggressive form of brain cancer), without leading to dangerous and potentially life threatening increases in body temperature as the result of excessive heat absorption [9].

The administration of very low and safe levels of radiofrequency electromagnetic energy has also been used to successfully treat chronic insomnia using methods of biofeedback [10]. Taken together these studies highlight the importance of electromagnetic energy fields, and their role and impact on cellular function when treating various conditions, such as cancer, osteoarthritis, and insomnia. Indeed, recently published findings on treatment resistant bacterial communities found that even individual bacteria are able to use electrical signalling to communicate with each other, even in long-range [11]. Thusly, it appears to be more important than ever to understand these unique electromagnetic energy fields within the body, as they provide critical information in terms of cellular health and function, disease, and illness. Further, they are likely to provide the key to improving the treatment of a wide variety of conditions.

There is very little empirical data available using scientifically sound and rigorous clinical trial methodology to explore the efficacy and effectiveness of Bioresonance testing and treatment techniques.

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While the gold standard for research examining the effectiveness of a treatment (such as drug trials) is double blind, this would be unrealistic for studies examining Bioresonance. More specifically, studies utilizing a double blind approach must keep both the provider delivering the treatment and the patient receiving the receiving the treatment blind, or not aware, of whether the patient is receiving the active treatment or a placebo. Indeed, physicians delivering Bioresonance treatment will always be aware of whether they are administering the active treatment of a placebo trial. Nonetheless, findings from available studies using less rigorous methods for examining efficacy and effectiveness may indicate that Bioresonance is an appropriate complimentary assessment and treatment tool.

The strongest findings of support for Bioresonance emerge from those studies examining the recovery rate of asthma. Among adult samples, Bioresonance techniques were associated with rates of between 83 and 74% complete recovery from allergies, compared to the spontaneous recovery rate of 15% [3]. Though only one study exists, findings indicate that the recovery rate for adults receiving Bioresonance treatment for allergies is equal to that of adults receiving steroid treatment for allergies [4], while those in the Bioresonance group failed to report any side effects or symptoms. Given that this procedure is very safe and gentle for children, research on effectiveness rates of Bioresonance and pediatric allergies is critical. One study found that the partial success rate for recovery from allergies among children receiving Bioresonance to be 86%, which is somewhat higher than what is typically reported for medication trials (i.e., 70%).

Among other conditions, Bioresonance has been associated with improvements in the progression of liver cell damage [3] and faster recovery rates from injury [4]. According to a recently conducted meta-analysis, Bioresonance techniques are associated with greater rates of recovery from symptoms (i.e., 31% reported ‘significant improvement’).

It is important to highlight that Bioresonance does not share the same objectives with Western orthodox medicine, which may account for the lack of empirical evidence regarding the use of Bioresonance as a diagnostic and treatment tool. In fact, Bioresonance should not be viewed as a substitute for conventional medical diagnosis and treatment. Instead, Bioresonance should be regarded as a complementary approach to traditional practices in medicine. Recommendations for use include: allergies, asthma, atopic dermatitis, cancer treatment, and rheumatoid arthritis.

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