**Scientific explanation of Reiki**

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This page intends to act as an introduction in explaining Reiki energy in a more scientific manner. It is aimed at readers with a science based viewpoint, and concentrates mostly on the physical aspect of healing a body, as opposed to other explanations that also refer to the spiritual. As this is an extremely complicated area, just the bare facts have been kept. Results and conclusions have been taken from a variety of material, indicated by a number in square brackets. e.g. [n]. More information will be added as research continues.

Reiki healing with hands

The activity of healing with the hands (also known as 'Theraputic Touch' in the US) has been known about for thousands of years, with the origins of it lost in the mists of time. In the early 20th century a japanese doctor, Dr Mikao Usui, developed the art of 'healing hands' and named it 'Reiki'; - 'Rei' meaning 'universal' and 'ki' meaning energy. He saw the ability to heal as a benefit to mankind and documented it, whereupon his methods then became widespread.

Reiki and BioMagnetics

It is known that all particles, atoms, cells and bodies in the universe have their own electromagnetic field. Therefore, it is not unreasonable to conclude that the tissues and bodies of living things also have an electromagnetic field, however small [3,4]. This field is known as the BioMagnetic energy field, and it is this energy field that reiki has been shown to work with.

Reiki and a persons aura

Following that each body has a BioMagnetic field, it is also refered to as someones 'Aura' [13]. Whilst still under scientific debate, there is also suggestion that the Aura can be photographed using Kirlian photography. People have reported being able to see the Aura with the naked eye [2]. As visible light is also a form of electromagnetic radiation, this concept isnt so strange to understand [2].

Measuring Reiki energy

In the early 1990's Dr John Zimmerman conducted an experiment at the University of Colorado to measure the amount of energy emitted from the hands of a reiki therapist using a SQUID [1]. The results showed that the energy released was in the form of electromagnetic pulses at frequencies scanning between 0.5Hz and 30Hz with a strength of .0001 gauss [1]. Further research was performed by the japanese in 1992 confirming the results [15]. Therefore we can conclude that reiki energy contans electromagnetic pulses.

Electromagnetic energy as a therapy - PEMF

In medicine, devices that produce Electromagnetic Pulses are used in the field of orthopedics mainly to assist in bone growth and repair [16,17]. This therapy is referred to as 'Pulsed Electromagnetic Field Therapy (PEMF)', or 'Pulsed Magnetic Therapy'[13,14].

History of PEMF

The use of electromagnetic fields in clinical applications was first documented over 500 years ago, by the Swiss physician Paracelsus. Serious research began in the 1950's with Fukada and Yasuda[18] culminating in the mid 1970's with Bassett and in 1979 the FDA of the US approved the first PEMF devices to stimulte bone growth.

PEMF healing frequencies

Although PEMF devices are used primarily in bone restucture, they are also known to promote healing when operating at the following frequencies:

* 2Hz - Nerve regeneration
* 7Hz - Bone growth
* 10Hz - Ligaments
* 15 & 20Hz - Decreased skin necrosis, Capillary formation, fibroplast proliferation
* 25Hz - Synergisitic effect with nerve regrowth

Reiki energy and PEMF

As reiki energy is emitted on frequencies between 0.5Hz to 30Hz, it could be concluded that reiki works in a very similar way to PEMF [6].

Source of reiki energy

Energy being emitted from the hands of a reiki therapist has been proven [1], but, how and where it comes from, is an issue that the scientific community is still debating; the practice of Reiki shows that it can increase the bodies ability to heal itself, but Science has yet to come up with a theory to prove it.

One of the biggest arguments in modern day physics is 'String Theory', it has caused uproar amongst physicists for decades as it cannot be proven with todays technology, so it remains just that - a theory. So, even in the 21st century, the most diplomatic answer to the question 'where does reiki energy come from?', could be 'it uses areas of physics that we cannot yet prove'[20].

Distance healing with reiki

Passing Reiki energy without the therapist being present with the recipient, is known as 'Distance Healing' and shows similar improvements in the bodies healing ability to a 'hands on' Reiki treatment. However, it is probably the area of Reiki that causes the biggest disagreement between spiritual and scientific communities. Applying String Theory to how Distance Healing works does explain it, as it's all to do with multiple dimenstions of time and space. [20]

Reiki and Wellbeing

The word 'wellbeing' is often used within alternative therapies; the Cambridge dictionary defines it as 'the state of feeling healthy and happy': a state in which the Body, Mind and Soul are working together in harmony. As Reiki energy covers many frequencies, it is well reported that it also has an excellent reputation as a relaxation therapy. As many medical physicians will qualify, the body is more than the sum of it's parts and therefore a healthy body leads to a healthy mind [7,13]. Therefore, we can conclude that as reiki works on multiple electromagnetic frequencuies it has the advantage of promoting healing on many levels, typically: Physical, Mental, Emotional and Spiritual.

Reiki clinical trials

Many clinical trials on reiki have been performed, but not all of them have been particularly good. The reason for this, like so many situations in the moden world, is money; it not easy to justify good quality research on a treatment that has little financial reimbursement to a large multinational pharmaceutical conglomerate, Therefore, it is unfortunate that investment and research, is limited. However, the majority of trials tend to conclude that Reiki is beneficial in promoting healing within the body. Therefore some very cost effective benefits are being found by those members of the medical community that are less concerned about how the healing works and more interested in improving the healing ability of a body.

A list of clinical trials and their results appears at the end of this page.

Conclusion of scientific research into Reiki

We can conclude that we understand how reiki energy heals the body. Energy that is passed from a therapist to a patient is similar to that of a PEMF and the results are also similar. In addition to this, the reiki energy that is emitted from the hands is not set to one frequency, but several. Therefore the effects of reiki can be looked upon as having a multi-frequency PEMF device that assists the body to relax and heal.

In reality, some very cost effective benefits are being found by those members of the medical community that are less concerned about how the healing works and more interested in healing a patient.

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List of succesful clinical trials

Olson K, Hanson J, 1997. "Using Reiki to manage pain: a preliminary report." Cancer Prevention Control 1997, June, Vol.1(2): pages 108-13. The purpose of this study at the Cross Cancer Institute, Edmonton, Canada was to explore the usefulness of Reiki as an adjuvant to opioid therapy in the management of pain. Since no studies in this area could be found, a pilot study was carried out involving 20 volunteers experiencing pain at 55 sites for a variety of reasons, including cancer. All Reiki treatments were provided by a certified second-degree Reiki therapist. Pain was measured using both a visual analogue scale (VAS) and a Likert scale immediately before and after the Reiki treatment. Both instruments showed a highly significant (p < 0.0001) reduction in pain following the Reiki treatment.   Brewitt, B., Vittetoe, T, and Hartwell, B., 1997. "The Efficacy of Reiki Hands-On Healing:  Improvements in spleen and nervous system function as quantified by electrodermal screening". Alternative Therapies, July 1997, Vol.3, No.4, pg.89 Improvement in spleen, immune, and nervous system function were quantified by electrodermal screening, and a reduction of pain, an increase in relaxation, and more mobility was reported in patients with chronic conditions as multiple sclerosis, lupus, fibromyalgia, thyroid goitre.   Aladydy, Patricia and Kristen Alandydy, 1999. "Using Reiki to Support Surgical Patients".  Journal of Nursing Care Quality, 1999 Apr;13(4): pp. 89-91. Surgical patients at Columbia/HCA Portsmouth Regional Hospital in Portsmouth, New Hampshire are given the option of a 15 minute pre- and post-surgery Reiki treatment. In 1998 more than 870 patients participated. As a result there was less use of pain medications, shorter lengths of stay, and increased patient satisfaction. This article discusses how this program was set up. Plans for the future include documentation of the benefits and the further use of complementary therapies.   Motz, Julie, 1998. "Hands of Life". New York; Bantam Books, 1998 Reiki was used in the operating room of the Columbia Presbyterian Medical Center in New York City. The New York Times magazine reported about the use of Reiki during open-heart surgeries and hart transplantations performed by Dr. Mehmet Oz. None of the 11 heart patients treated with Reiki by Reiki Master Julie Motz experienced the usual postoperative depression, the bypass patients had no postoperative pain or leg weakness; and the transplant patients experienced no organ rejection.