

# ELEVENTH INTERNATIONAL CONGRESS ON STRESS

## CHANGES IN KIRLIAN PHOTOGRAPHY ENERGY FIELDS FOLLOWING PULSED SIGNAL THERAPY

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Communication in the body is currently viewed at a chemical-molecular level. We visualize that brain neurotransmitters, small peptide molecules manufactured elsewhere, and hormones secreted by endocrine organs are transported via the circulation to specific receptor sites on cell membranes where they fit like keys in a lock. In the central nervous system, acetylcholine or catecholamine chemicals liberated at synapses and nerve endings in response to stimuli function in a similar fashion. However, all communication ultimately takes place at a physical-atomic level. Humoral and hardwired chemical messengers initiate energy signals at these sites that activate targeted enzyme systems in the interior of the cell. Cell membrane permeability is altered resulting in instantaneous changes in the flow of ions into and out of the cell and it is this alteration in ionic flux that eventually achieves the desired effect. There is abundant evidence that weak electromagnetic signals from the external environment or generated internally can reproduce these results.

People who exercise regularly have stronger bones and a state of weightlessness or putting an extremity in a cast results in atrophy. This is because the stimulus for bone growth is a piezoelectric signal resulting from physical pressure that creates a streaming potential of ion flow from the extracellular matrix. In patients with osteoarthritis, the efficient transmission of this electromagnetic stimulus is hampered because of tissue damage. Pulsed Signal Therapy (PST) was developed after years of basic science research designed to reproduce this precise piezoelectric stimulus via an externally applied electromagnetic field with specific characteristics that could be targeted to damaged tissue. Its success in relieving pain and restoring mobility has been documented in double blind and other studies in over 50,000 osteoarthritic patients. In vitro studies have also confirmed its ability to enhance proteoglycan synthesis and matrix collagenase activity.

We therefore decided to investigate whether evidence that the effect of PST on energy fields in osteoarthritic joints could be corroborated by other techniques such as Kirlian photography. Instead of using a light source, Kirlian photography produces pictures in the presence of a high frequency electrical field to generate a spark discharge around animate or inanimate objects that are believed to reflect its energy characteristics. This "Kirlian aura" can be quite striking with vivid colors and lights around a photographed leaf or the energy from a healer. Kirlian photographs of patients' hands and feet have also been used to evaluate the bioenergetic effects of therapies such as the Bach Flower remedies. This presentation reports the results of Kirlian photography in osteoarthritis before and after PST that confirm significant changes in energy fields following treatment. The implications of these findings for diagnostic and therapeutic advances in the millennium will be discussed.