Welcome to ENERGY MEDICINE.
Energy Therapies:

hands-on and hands-of methods

energy technologies
All approaches to health can benefit from the study of biological energetics. Modern medicine has had little to say about energy because the primary focus for the past century has been on biochemistry and pharmacology. Most physicians confirm that their medical education included very little about physics and biophysics. This web site introduces key information on the subject of energy and the basic physics needed to learn about this exciting and emerging field.
Many of the complementary, alternative and integrative therapies are based in part on energetic aspects of life and healing. The ideas introduced here, and detailed in our books and articles, provide the scientific grounding needed to understand biological energetics and energy therapies.
This web site will introduce the latest energy medicine science. Exciting developments have taken place.
We begin with the living matrix and basic electronic biology and proceed to the implications for inflammation, chronic disease and longevity.
What is this diagram all about?
This is a view of life at the electronic level.
The red dots represent mobile electrons.
Nobel Laureate Albert Szent-Györgyi suggested that the double bonds in the protein backbone provide free or delocalized or mobile electrons. “These electrons cease to belong to one or two atoms only, and belong instead to the whole system...A great number of molecules can join together to form an energy continuum, along which energy, that is excited electrons, may travel.” This is a “whole-system” perspective on energy transfer, and provides a basis for a variety of energy therapies.
The body is literally “alive” with mobile energetic electrons.

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ELECTRONIC BIOLOGY

Albert Szent-Györgyi suggested that living tissues should contain free or mobile electrons. In other words, the proteins forming the fabric of the body are semiconductors. His technical description:

If a great number of atoms are arranged with regularity in close proximity, as for instance, in a crystal lattice, the terms of the single valency electrons may fuse into common bands. The electrons in this band cease to belong to one or two atoms only, and belong to the whole system... A great number of molecules may join to form such energy continua, along which energy, viz., excited electrons, may travel a certain distance.

Szent-Györgyi was referring to the fact that much of the human body is crystalline in nature. Highly organized arrays of molecules are found in muscles, connective tissues, cell membranes myelin sheathes, and many other tissues.
At first, other researchers were unable to demonstrate semiconduction in proteins, so the idea seemed to reach a dead end. However, it was later realized that the semiconduction tests had been done on purified and dehydrated proteins. When the tests were repeated on wet proteins, semiconduction was confirmed (Rosenberg and Postow, 1969).


We call this system *the living matrix*. 
The living matrix is the physical and energetic fabric of the body.
The living matrix is a continuous system surrounding and extending into all parts of the body. It forms all organs and tissues.
The living matrix includes the DNA and nuclear matrix.
The living matrix also includes the cytoskeleton.
The cytoskeleton is linked with the extracellular matrix by important molecules called integrins (described next).
The integrin concept followed from pioneering research of Mark Bretscher at Cambridge University in England. Using radioactive tracers, he determined the position of the major protein in the red blood cell membrane. He asked, is it on the surface (A), does it sink into the membrane (B or C) or does it extend from the inside to the outside (D)? Model D proved to be correct.

It was soon discovered that the integrins are critical to proper functioning of the body and to life itself (Horwitz, 1997).

Horwitz, A.F., 1997. Integrins and health. Discovered only recently, these adhesive cell surface molecules have quickly revealed themselves to be critical to proper functioning of the body and to life itself. Scientific American 276:68-75.
The discovery of the integrins led to the realization that the connective tissue, cytoplasm, nucleus and DNA form a continuously interconnected system: *the living matrix*.

This concept was published to commemorate of the 90th birthday of Albert Szent-Györgyi:

The links across the cell surface are both energetic and structural (they anchor cells to the extracellular matrix and to each other).
Szent-Györgyi and colleagues found that the major protein of the connective tissue, collagen, is a semiconductor for both electrons and protons. The electrons are thought to move through the triple helical protein backbone, while the protons move through the layer of water surrounding them, known as the hydration shell.
The electrons are excited, i.e. they carry energy.
When we use the term, “energy,” we need to be specific. The reason is that there is a lot of confusion and skepticism about energy and energy medicine. Many schools of complementary and alternative and integrative medicine use the term rather loosely. Our research aims to build up the science of energetics from basic physics principles. The use of physics enables us to define energy medicine in scientific rather than esoteric terms.
Definition of Energy Medicine:

Energy medicine is the diagnostic and therapeutic use of energy whether it is produced by or detected by a medical device or by the human body itself. Energy medicine involves energies of various kinds that stimulate the repair of one or more tissues. Energy medicine recognizes that the human body uses various forms of energy for communications and vital internal regulations.
Mobile excited electrons are thought to have several additional functions. One is to transfer information.
Recently it has been recognized that free electrons have antioxidant properties.
This has major implications for health and cellular longevity.
It has been suggested that aging results from the accumulation of free radical damage.
The free radical theory of aging is summarized in a recent book:

From the preface:

Aging remains one of the biggest unsolved problems in biology. More than 50 years ago, Denham Harman proposed the free radical theory of aging, arguing that cumulative damage from oxygen free radicals was causal to the process of aging. A recent explosion of investigative interest and endeavors has made the free radical theory the most extensively tested of all aging theories.
FREE RADICALS:

Widely viewed as one of the primary causes of aging, sickness and disease, free radicals come from:

- Oxidative metabolism
- Immune responses to injuries
- Immune responses to diseases
- Sunlight
- Tobacco smoke
- Electrical stress from appliances
- Environmental toxins and pollutants
Antioxidant molecules neutralize free radicals by donating electrons to them.

The result:

- Anti-oxidant molecule has an electron to donate
- Free radical is missing one or more electrons
- Anti-oxidant molecule becomes a free radical
- Free radical is neutralized

The free radical is neutralized, but the anti-oxidant becomes a free radical that the body must dispose of.
Dietary and nutritional antioxidants are very popular, but it takes time for the molecules to travel through the digestive and circulatory systems to reach free radicals. The living matrix provides a network for rapidly delivering antioxidant electrons to any place in the body where free radicals are formed.
The public is being informed that inflammation is a common denominator to a wide range of chronic diseases. This realization comes at a time when many of the important pain drugs are being discontinued due to their toxic side effects.
Our understanding of inflammation has benefited from the careful study of the physiological changes taking place when you walk barefoot on the earth.
Throughout evolutionary history, humans have walked and slept in direct contact with the earth, or on natural materials such as leather. The invention of plastics led to the manufacture of insulating soles for shoes, and completely changed our relationships with the earth. This has compromised and stressed our immune systems.
A variety of methods have been developed for connecting us to the earth while we sleep and while we work. They are having a dramatic effect on how we feel and on the health of pets. We refer to investigations of this subject as earthing research. For more information, follow the link to earthing research.
Understanding the significance of connecting to the earth involves a look at the most exciting area of biomedicine: the study of inflammation and its impacts on disease and longevity.
Scientists around the world are documenting relationships between inflammation and chronic diseases of all kinds. This has become one of the most exciting areas of biomedical research.
A study by an electrical engineer revealed that electrons flow between the earth and the human body.

Physiological studies revealed virtually instantaneous relaxation of muscle tension and changes in brain wave indicative of relaxation.

Research using medical infrared imaging shows rapid resolution of chronic inflammation and pain reduction.
The most recent studies have revealed that a point on the bottom of the foot known to acupuncturists as Kidney 1 is a low resistance pathway for electron flow from the earth to the body, and then throughout the meridian system and living matrix. Physiological measurements taken before, during and after connecting this point to the earth show a variety of physiological changes. This research has been published by Chevalier and Mori (2009).
These concepts help us understand how a wide variety of energy therapies work. Energy medicine has had 2 main branches.
Energy therapies: techniques that stimulate the flow of electrons to sites of chronic inflammation.

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We can now add another natural energy method: connecting the body to the earth. Current research is examining how providing an abundant supply of free and mobile electrons to the body facilitates other methods. Follow the progress in these investigations at the link for *earthing research.*
This has been a brief overview of energy medicine. For more details, look at our books, articles, and lectures.
This book allows things to be thinkable that were not thinkable before.
~George Quasha
How Performers and therapists push the limits and expand their possibilities.

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