## **Modern Science Validating Complementary Therapies**



Modern research science is validating and explaining the beneficial effects of a wide range of complementary therapies.

James L. Oschman, Ph.D is one of the few academic scientists who have explored the basis for complementary and alternative medicines. He lectures widely on the energetic phenomena taking place in the therapeutic situation and has developed useful insights that can help all therapists better understand and advance their work and explain it to others.

James is the author "Energy Medicine. The scientific basis." And "Energy Medicine in Therapeutics and Human Performance."

"I would like to talk about various things that happen before you actually touch the body. The work is done before you touch the body. What work? What are we talking about? What kind of energy are we talking about?"

What is energy? In physics, energy is defined as the ability to do work.

"We all know what it feels like to not have energy, so it is not mystical. In medical circles "energy" is a politically incorrect term and that has to change. You cannot do any form of medicine without some kind of energetic action taking place and these energetic interactions are extremely interesting. This field that is emerging of energy medicine and the field being created with Bowen work is extremely interesting. It is revealing exciting new things about the human body. The value of physics is that it can give us, when talking to other health care providers, a knowledge of the language of energy."

> Two laws of physics demystify energetics.

## 1. Ampere's Law

"In 1820, Hans Christian Orsted accidentally discovered that passing a current through a wire would cause nearby compass needles to rotate. Electricity can give rise to

magnetism!

This has become a basic law of physics called Ampere's Law. This is very important. We have what you call the right hand rule. Every electrician knows this. That's with the wire in the middle. When the is no electricity in the middle the compass is pointing to the North pole. When the current flows through the wire you stick your thumb in the direction of the current flow your fingers wrap around in the direction of the magnetic force. So that is the right hand rule. Ampere's Law explains how currents produced by the heart and other organs give rise to biomagnetic fields in the space around the body.

I use the heart because it is the largest electrical generator in the body and the circulatory system is a good conductor so every heartbeat sends electricity up and down through your cardiovascular system and creates a field in the space around the body (and around your hand, if you are interested in your hand)."

## 2. Faraday's Law

"In 1831, Michael Faraday discovered that moving a magnet near a conductor induces a measurable current in the wire. Magnetism gives rise to electricity! Faraday's Law of Induction is another basic law of electromagnetism.

In Ampere's Law electricity can give rise to magnetism and in Faraday's Law Magnetism gives rise to electricity. I am going to use these two laws to explain how the electricity in your body gives rise to a magnetic fielding in the space around your body and around your hand and those magnetic fields can induce current flows in your patient even before you get your hand on them."

Faraday's Law of Induction explains how your biomagnetic field can induce current flows in the people near you.

"The inductive stage explains how you can begin interacting with your patients through your magnetic field as soon as they come into the room from a distance. The magnetic field of the heart has been measured 15 feet from the body so you are already interacting before they even lie down on the couch. The field can induce current flows when you touch the patient or get near them."

The electrical field of the heart is the strongest field in the body. The circulatory system is an excellent conductor of electricity. The heart's electricity is conducted to every part of the body. The Heart's electricity gives rise to a biomagnetic field surrounding the body.

"We know that the standard system of recording the electrocardiogram is to use leads on the wrist and the ankle. What I like about this is Richard Gordon who wrote a book on polarity 25 or 30 years ago made a wonderful drawing on the field of the body and what he felt with his hands. About the same time that he was publishing his book scientists at a ew Age institution called the Massachusetts Institute of Technology were measuring the field of the body and the heart confirming that what he sensed with his hands was accurate.

Nature uses three tricks from physics to increase the intensity of the heart's field.

- 1 the solenoid
- 2 helical conductor around a core
- 3 resonance with other helical structures

"One is if you want to make a strong magnetic field you make a coil or a solenoid. In the circulatory system the aortic arch has a vortical flow through it. This has been measured using very sophisticated technologies and so the conductor itself, the blood is moving helically, this enables the heart to produce a large field.

Second, if you want to make a strong electromagnet field you put a metallic core in the middle of the coil. In the case of the human body the helical conductor is the spiral line, these designations are as described in Tom Meyer's book "The Anatomy Trains"

There is the spiral line, and the core of the helix is the muscles in the deep front line and this includes the psoas which we are going to talk about soon. The core muscles are profoundly important and very interesting muscles and the erector spinae act as the core so you can conduct a large field in the space around you.

Another trick the body uses is

resonance. For example, when the orchestra is going to perform the concert master comes out and points to the oboist and plays an 'A' note, the concert master tunes the violin and the whole orchestra tunes until everybody is resonant and they are all on the same scale. This is a standard orchestral tuning frequency. These frequencies allow the helical flow of blood and the electrification of the heart muscle to resonate with other helical structures in the body such as DNA and collagen. These are some of the helical structures that play a big part in the body. There is the tuning fork vibrating the air and sending a wave/compression through space producing what is called the tuning fork effect.



When you have two tuning forks tuned to the same frequency if you bang one the other will also vibrate at a distance away.

One of the interesting things that happens, and this is a hypothesis, is that the connective tissue has a tension to it and the tension of the connective tissue will determine its resonant frequency. If a person comes in and they have a tense psoas muscle for example, some of you, perhaps many of you will know which muscles are tense in the person. One of the ways you know is you tune into your own body and you feel what part of your body is resonating with what part of their body. Dolphins are very good at this. If you go to see dolphins

in a pool they will come up and they will stick their head out of the water and scan, sending sonar up and down your body and measure the reflections coming back. From this they know your body tensions and thereby know your emotional state and if you are depressed they will often do something that will make you forget you are depressed. Hence, resonance through the musculoskeletal system. I was actually present at the famous event that happened with Ida Rolf in the last advanced class that she taught in Philadelphia. This is a famous story. She was almost blind. She was looking forward and one of the students was doing some work on a model out of her line of sight. She couldn't see him. And after a while he was struggling. It wasn't working. Eventually she said, "No, no no, you're in the wrong place. Down a little bit." So, he moved his hand down and what needed to happen, happened. How did she do that? I think it is some phenomenon like this where she knew what was happening in other people, where their tensions were, just from tuning into herself. Probably many of you do the same thing. The tuning fork effect we learn about when we study hOID10nesand receptors we learn a lock and key model. A hormone and receptor interaction. This is a simple model and like simple models it is partly right and partly wrong. Everybody has put a key into a lock and turned it and locked the door. The same applies with substrates and enzymes in cells. At body temperature a hormone will be vibrating and will be emitting an electromagnetic field because it has electrons in it that are moving through space. The receptor that has a similar matching structure should resonate with it. They will fit together and they should resonate. They have complementary structure. Hormones and nerve transmitters do not actually have to touch receptors to interact with them. They can communicate through the electromagnetic field.

What I suggest to you, those of you who have electronic car keys, you know that you can put the key in the lock and unlock your car door but when you get used to it you push the button when you are 20 feet away and the door unlocks. When you do that think of the hormone receptor interactions. Molecules do not have to touch to interact.

I have talked about electronic car keys and a guy said, "Jim when you are too far away from your car and the button doesn't work, try holding it up to your head." I tried it. It worked. Great. I tried it again with my belly, it didn't work. Then I tried it at the base of my spine. It worked. The body is an antenna. In fact, there are probably a number of antennas -the circulatory system, the nervous system, the musculoskeletal system and so on. The base of the spine is a good place to interact with all those. You can use your body as an antenna and this is in part how homeopathy works because it has been demonstrated that people will respond to a homeopathic remedy that is in a glass vial brought into the same room. They will respond with an allergic reaction or some other type of reaction -you don't have to take the remedy into your body. It is a type of electromagnetic interaction. At temperatures above absolute zero, atoms and molecules vibrate. Since they are composed of charged entities, such as electrons, they must emit electromagnetic fields.

At temperatures above absolute zero all molecules are vibrating and we have a phenomenon called the emission spectrum of a molecule. If you have a known substance and give it to a chemist, the chemist will run it through the spectrometer and the emission spectrum will tell you what each of these peaks mean and will identify the compound on the basis of the spectrum."

Spectroscopy: one of the most firmly established branches of physics. "There are two type of spectrum, the emission spectrum where if you heat the molecules the sample gives off light. You can run light through a prism and find out what frequencies are produced. The absorption spectrum also works. You pass a light beam through the sample and certain colours will be absorbed by the molecules and you take a picture of the spectrum and you see dark places where no light has got through. This what the sample has absorbed and generally the emission spectrum and absorption spectrum are the same."

Never underestimate the power of resonance.

"It is a fantastic phenomenon. Here is an example: In 1963, Pioneer 10 became the first man made object to leave the solar system. On the 30th anniversary of its launch, NASA sent a message to Pioneer, which was then 7.4 billion miles away. A response was received 22 hours and six minutes later.

Pioneer's last and very weak signal was received on 23 January 2003, when it was 7.6 billion miles away. Then the power supply ran out. This blow me away, boggles my mind. This is resonance. The transmitter in Pioneer was a 40 watt transmitter. Imagine taking a light bulb and sending it 7 billion miles away and still seeing it. My question is, if the power supply did not run out, would we still be able to communicate with Pioneer 10, would that extend indefinitely into space?"

End of part 1.

In the next issue, "the electricity of touch" and how you "jump start" the healing process.