

Why Does QRS PEMF work so phenomenally well?

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The body is made up of all types of cells, each having their specialized functions. Muscle cells conduct electricity and contract causing movement, nerve cells conduct electricity and transmit chemical messages to turn on adjacent cells, which could be thyroid cells to secrete hormone or liver cells to detoxify a chemical. Because cells are all very unique, I'm going to talk about a generic average cell, which of course doesn't exist. But basically a cell has a membrane or an envelope surrounding it to hold its guts in. When that membrane gets damaged, by eating trans fatty acids, accumulating heavy metals or plasticizers, or having deficiencies of minerals or fatty acids like DHA, the cell membrane leaks. This can cause body swelling (edema) or fluid retention. If the leaking is really bad, the guts spill out and the cell dies. Swelling or edema isn't the only manifestation of damaged cell membranes. Since the cell membrane houses all of the receptors for communication with every other cell in the body, it is like the Internet of the body. Anything can go wrong once the communication system is damaged.

Because the cell membrane is constructed like a sandwich with fatty acids on either side and proteins in the middle, it also has an electrical charge across the inner and outer membranes. The potential across the average cell membrane is -70 mV. But once cell membranes become bogged down with chemicals or nutrient deficiencies, the trans-membrane potential (the difference in electrical charge from the inside to the outside of the cell membrane) can swing the other way to as much as + 30 mV. This happens, for example, in pain syndromes, old age, swelling either from injury or inflammation, and in most disease states, including cancers. Applying a pulsed magnetic field to a painful site can bring the membrane potential way down to a hyper-polarization level of better than normal, about -90 mV. This makes it more difficult for a pain signal to be detected, and therefore, much less effective in causing pain.

In one study, over 45% of patients showed good results for control of pain, and mind you no one was doing a nightshade-free diet, which should have provided a much higher percentage improvement (Paccagnella). In other studies, the QRS worked better than oxygen protocols (working where they had failed) in opening the diameter of blood vessels and improved ulcers (Leran, Stiller) and wound healing (Kioth, Brighton, Im, Canady). This in turn improved blood flow, bringing precious nutrients to speed healing and diminish pain (Warnke). Researchers even included horses in this study and improved their cardiovascular performance as well. Just about every condition you can think of has been improved with pulsed electromagnetic fields, because you are coming down to a fundamental correction of damaged body physiology (Brighton).

It would take several books just on QRS to detail all of the research. One particularly good starting place for interested physicians would be the book that has chapters by physicians from NIH, MIT, Johns Hopkins, Columbia College of Physicians and Surgeons, and more (Blank). These folks have done a wonderful job explaining how the calcium channels that sit in the lipid sandwich of the cell membrane are really pores lined by proteins. These proteins and fatty acids are not static, but like all living things, are moving or oscillating. These oscillations not only can be characterized by frequencies, but have harmonics that can change the alignment and activities of the proteins that govern how much calcium, for example, moves in and out of the cell. This is exciting, because it proves we can control biochemical and cellular function with electromagnetic energy.

Why do so many folks end up with knee surgery after they tear a cartilage? Remember the cartilage from adult humans has no blood vessels, no nerves and no lymphatics. It has a sparse nutritional supply that is primarily derived from the joint fluid. As well, glucosamine sulfate, silicon, water, and much more are needed to modify the regeneration of this vital substance (see Pain Free In 6 Weeks for even more detail when needed).

Also calcium flow is a crucial part of this regeneration, and pulsed electromagnetic fields (which is what the QRS provides) work in part by facilitating calcium flow through calcium channels in cell membranes (McLeod, Grande). Likewise highly charged proteo-glycan molecules (which make up the ground substance or the 'stuff in between cells) are critical for translating the messages from mechanical forces into cell growth. Equally important, these GAG substances that hold cells together are the major communication link between all cells. The QRS works through all these vital areas to normalize charge and chemistry and ultimately accelerate healing (Trillo).

Clearly, all of this chemistry really comes down to electricity as the primary force determining the movement of calcium in and out of cells. Where it finally goes in the body and governs most crucial functions like nerve transmission, bone healing, and general energy (Blank, Brighton, Madronero). Nothing else is comparable. Pulsed electromagnetic fields are so beneficial that they have also improved the ability of chemotherapy to kill cancer cells (Omote), and to strengthen the immune system (Walleczek).