

Bob Beck's Legacy

MICROCURRENTS FOR HEALING

To gain a better understanding of how gentle electricity may work to help the body heal, we'll start with terms commonly used.

WHAT IS MICROCURRENT THERAPY?

The term “microcurrent therapy” has been in common use since the latter part of the 20th century. Microcurrents are a gentle form of electrical therapy in use by many technologies on the market today—from implants like heart pacemakers to devices that are applied topically for pain such as TENS units. Microcurrents are gentle in that they are meant to stimulate and nourish the body's natural electrical system.

WHAT IS MICROPULSING?

Micropulsing or blood electrification is an application of gentle electricity, a specific form of microcurrent therapy.

In 1993, Robert (Bob) C. Beck, D.Sc. introduced a new and easy-to-use way to apply microcurrents to the body. The technology he developed is called micropulsing and has also been known as blood electrification or blood purifying. Micropulsing is applied by placing electrodes over specific arteries in order for the microcurrents to reach the blood.

Micropulsing is meant to support the body's natural electrical functions. The body's electrical system supports the immune system. By supporting the immune system, micropulsing boosts the body's ability to heal itself.

Using electricity to support the body is not a new idea. The history of microcurrents and using electricity for health have their start in Ancient Rome.



HISTORY OF ELECTRO-THERAPY

Like many medical discoveries, the effectiveness of electricity for health was likely an accidental discovery. During early Roman times an encounter with an electric fish was probably not welcomed. At times, however, one may have noticed, after experiencing a shock from an electric fish, that their knee pain was gone. That person probably shared their experience with another and so it goes ... until word-of-mouth caught the attention of Roman physicians.

Two Roman physicians left records of their use of electricity using an electric torpedo fish. One, Scribonius Largus, who lived in the first century, wrote: "For any type of gout a live black torpedo should, when the pain begins, be placed under the feet."

And the other, Claudius Galen, stated: "Therefore I thought that the torpedo should be applied alive to the person who has the headache, ... and could free the patient from pain ... this I found to be so."¹

Later in 1880, *The Lancet*, a prestigious medical journal in England, published a letter describing how a lightning strike had cured cancer. The letter, written by a senior hospital surgeon, told the story of a farmer who was struck by lightning ... and lived:

*The cancer gradually lessened, and in a few weeks every trace of the diseased structure disappeared, and for ten years he enjoyed complete freedom from his former suffering and signs of the disease.*²



A bolt of macrocurrents by lightning is not a therapy we recommend.

Arsene D'Arsonval, a French physician and physicist said in 1881:

*I am convinced that the therapy of the future will employ heat, light, electricity and other physical agents yet unknown. The barbarous 'cures' we now use actually poison us with the most toxic drugs of chemistry. But they shall be replaced by physical agents, which at the very least have the advantage of not introducing foreign material into the body.*³

Seventy-nine years later in 1960, Albert Szent-Györgyi, a Hungarian who is known as the "father of modern biochemistry" and who won a Nobel prize in 1937 for his work in chemistry, reminds us that:

*What drives life is a little electric current, kept up by the sunshine. All the complexities of intermediary metabolism are but the lacework around this basic fact.*⁴



The use of electricity for health was a popular part of treatment in clinics and health spas leading into and for the first half of the 20th century. Among Bob Beck's effects were two copies of the *Journal of Electronic Medicine*, published in 1944 and 1945. There is an ad in the journals for a 'College of Electronic Medicine' an educational institute in San Francisco in the USA.

The use of electricity, however, fell into disrepute with the rise of the pharmaceutical industry. The Flexner Report, sponsored by the American Medical Association through the Rockefeller

Institute, recommended a standard medical curriculum for medical schools. The curriculum included drugs and surgery—the Rockefellers were heavily invested in drug companies. It did not include electro-therapy.⁵

MORE RECENT EVIDENCE FOR THE BODY ELECTRIC

The research of Bob Beck, which brought us micropulsing for blood electrification, has had support in more modern times too. Like the early Romans, we sometimes discover the effectiveness of electricity accidentally:

... a growing number of farmers are zapping themselves to cure illnesses such as Ross River virus, by using their electric fences! It all started when a farmer in Bunbury, in southwest Western Australia, was accidentally pinned by a young bull against a 7,500-volt electric fence. The farmer had contracted Ross River virus several months earlier, as confirmed by blood tests, but his symptoms have disappeared since his encounter with the fence.

Two weeks later, a workmate, also diagnosed with Ross River virus, decided to try the same treatment. His symptoms also disappeared!⁶



Industrial Strength Zapping!

While this example was not with gentle levels of electrical current as provided by micropulsing, the experiences with an electric fence do illustrate the effectiveness of electricity.

Despite the credibility and prestige of an earlier Nobel Prize, Swedish researcher, Dr. Björn Nordenström's work using electricity to help overcome serious disease has not gained widespread acceptance as a medical procedure. His work, using electrical currents on cancer patients, gained publicity in the USA in 1986 when *Discover* magazine heralded his research on the cover. "Electric Man" in big, bold letters signaled the nature of the research. The editors proclaimed:

Nordenström thinks that electricity as well as blood flows through the blood stream, and that by using the DC treatment processor, which he helped design, he enhances the body's ability to fight tumors.

The editors seemed to recognize the importance of his work. "If he's right, he has made the most profound biomedical discovery of the century."

At the end of a 12-page article, the author says:

While Nordenström tries to play down his cancer treatments, his entire theory is likely to live and die by how the medical community chooses to receive them.⁷

While his work was largely ignored at the time in North America, China began using his system on cancer patients. As a result of the success they have experienced, the People's Republic of China awarded Dr. Nordenström the International Scientific and Technological Cooperation Award in 2001. His research laid the foundation for the treatment of tumors electrochemically—a treatment that is used today in several countries.

Scientists continue to make breakthrough discoveries with regards to the electrical nature of the body. The following research reported by BBC News may remind you of the story of Frankenstein. The BBC reports how electricity applied to a few rat heart cells brought them to life ... the heart tissue began to beat in the same way the heart organ beats.

One of the researchers exclaimed: "The real advance here is we mimicked what the body does itself..."

The news item states:

The researchers believe that the electrical stimulation helps condition the cells so that they communicate effectively with each other ...⁸

A media release from researchers at the University of Aberdeen, also in the UK, is titled *Electricity to Heal Wounds*. One of the leading researchers says,

Our studies show that electricity in the body is far more important than previously thought and that it has significant potential in wound healing.⁹

Evidence is mounting to indicate that our bodies have natural electrical circuitry that is crucial to maintaining or regaining health.

OUR CELLS FUNCTION ELECTRICALLY

Medical research is also revealing the way our body cells function electrically:

1. Two Swiss medical researchers managed to catch white blood cells, a key part of our immune system, using electricity to zap unwanted pathogens. The body has an ability to heal itself when the immune system is given the conditions and nutrients it needs. White blood cells capture and neutralize disease-causing pathogens—viruses, bacteria and fungi. They use electricity.¹⁰
2. Dietrich Klinghardt, a medical doctor who is a leader in the field of energy medicine, emphasizes the role of microcurrents to assist white blood cells in combating microbes or germs. He explains:

*Microcurrents activate the activity of the white blood cells. ... When we apply current and activate the white blood cells, awakened white blood cells will chase bugs ... these cells are our friend and clean up the very cause of most illnesses.*¹¹

3. In 1972, after a 43-year career in the School of Medicine at Yale University, Dr. Harold Saxton Burr published *Blueprint for Immortality* to better educate the public on the electrical nature of the body. His research discovered that the voltage of cells was different for cancer cells than normal healthy cells.¹²

Dr. Jerry Tennant followed up with his own work on the voltage of cells. Dr. Tennant discovered the implications of cell voltage during his research to restore his own health. He recovered from encephalitis, an acute brain infection, by bringing his body cells back to a healthy voltage. Dr. Tennant believes that sickness results when our cell voltage drops too low. We remain healthy as long as our cells have enough voltage to replace themselves with new healthy cells.¹³

It appears that microcurrents can help re-establish our cell's voltage potential.

RESEARCH THAT LED BOB BECK TO CREATE HIS BLOOD ELECTRIFICATION UNIT

The promise of microcurrent therapy was again confirmed in 1990 in a laboratory at the Albert Einstein College of Medicine in New York. In the 1980s, countries around the world were rocked with the news that blood products were contaminated with hepatitis C and viral material that could cause AIDS. Imagine the excitement as the researchers observed (in their laboratory) how microcurrents when passed through a solution of white blood cells infected with viruses, disarmed the viruses. Based on this research, Dr. Steven Kaali, MD. filed US Patent #5,188,738 in 1993.

The patent states:

... the present invention has been devised to attenuate any bacteria, virus ... parasites and/ or fungus contained in blood contributed by a donor to the point that any such contaminant is rendered ineffective for infecting a normally healthy human cell, but does not make the blood biologically unfit for use in humans.¹⁴

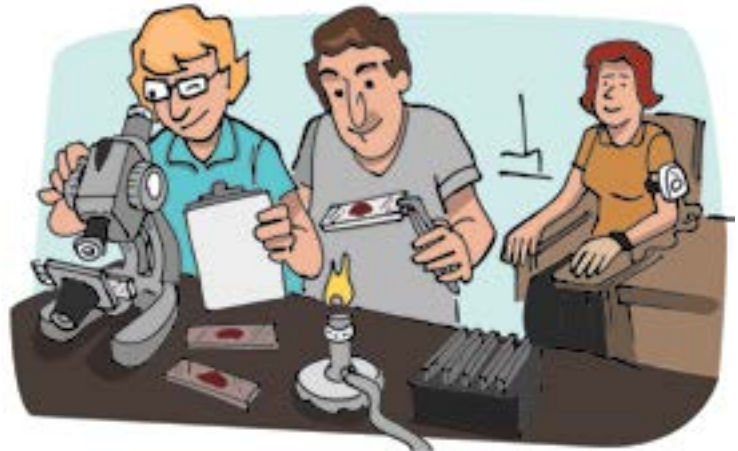
Fortunately, Science News published a brief item about this research in 1991. Titled "Shocking Treatment Proposed for AIDS," the article stated:

Their experiments, described March 14 in Washington, D.C., at the First International Symposium on Combination Therapies, showed that the shocked viruses lost the ability to make an enzyme crucial to their reproduction, and could no longer cause the white cells to clump together—two key signs of virus infection.¹⁵

We say fortunately, as it was this article that brought Kaali and Lyman's research to Bob Beck's attention. Fascination with this discovery led Bob Beck to develop the blood electrification or micropulsing technology. This technology has become the center-pin of what is now called the Beck Protocol.

Bob shared his excitement,

I was so fascinated by this because I'd been playing with electro-medicine for many years ... I had to try it. I didn't believe it. I thought maybe it was a false observation and maybe he put so much current that he fried them and killed them and it would kill the human being.



Live Blood Analysis Measures Progress

Rick Santee, a natural health practitioner in Los Angeles, uses Live Blood Cell Analysis to monitor the progress of those who come to him for help. After micropulsing, he described what he sees under the microscope:

I observe a dramatic reduction in the amount of microbes in people's plasma and serum. After staying on the program for even short amounts of time, ... you'd see a dramatic reduction in parasitic activity, in fungal development, in bacteria growth ...²⁸

He described the improvement he sees in the red blood cells as an indication there is more oxygen getting to the cells and less free radical damage. This supports the theory that microcurrents act as free radical scavengers by supplying needed electrons.

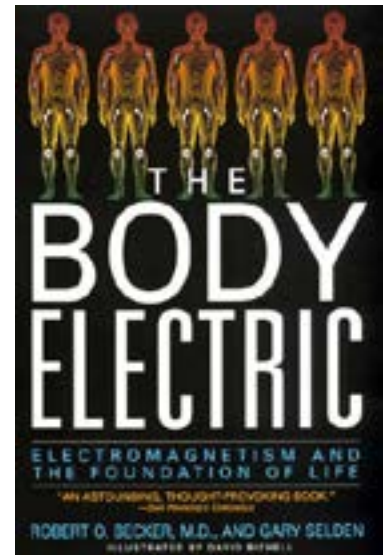
He was using only 50 to 100 microamperes, 50 millionths of an ampere was all it needed, and it later turned out to neutralize or eliminate every parasite, every fungi, every germ, every bacteria, every virus in the blood [in the laboratory]. And it had no effect, no bad effect on the normal blood cells. We know that's happening now ... my doctorate was in physics, a D.Sc. But here was probably the most important thing I'd seen in my lifetime, so I developed units.¹⁶

Bob carefully calculated the output level of microcurrents his unit would require in order to penetrate several layers of skin to reach the arteries.¹⁷

Any article about the electrical nature of the body and microcurrent therapy must pay tribute to Robert O. Becker, MD. His book, *The Body Electric*, has become a classic and a popular reference to understand the electrical nature of the body. Robert O. Becker and Bob Beck knew each other and have proved to be giants in paving the way for the acceptance of the use of gentle currents of electricity for health. When Robert O. Becker closed his lab, he wrote a book to make his discoveries known.¹⁸

After developing a simpler, non-invasive way to apply specific microcurrents, Bob Beck lectured to the public, and also published several articles in *Explore* magazine, to spread the word that microcurrents can help us heal.¹⁹

For various unknown reasons this research at Albert Einstein College of Medicine appears to have been ignored. In October 2003, we contacted William Lyman, PhD., one of the principal researchers. He had moved to another university and declined an interview. He was involved in new avenues of research and did not want to revisit his work with microcurrents. We understand the patent was sold, however, it appears there has been no further research or developments.



ELECTRONS AS NUTRIENTS

The application of electricity for health provides the body with electrons. Let's look at how the electrons may be helpful.

The formation of free radicals in the body is a natural process. A free radical is an atom with an unpaired electron. An unpaired electron seeks to rip an electron from another atom in order to reach a stable state. When the body is healthy, this process helps clean up debris or toxins. This process can be damaging to the body, however, if it goes beyond what is needed to clean up debris. An oversupply of toxins is known to increase free radicals and, in turn, accelerates the aging and the disease process.

A rich supply of free radical scavengers, sometimes called antioxidants, keeps this process under

control. Vitamins such as C and E and some minerals are called antioxidants—they supply needed electrons to satisfy free radicals.

Microcurrent therapy also acts to quench excess free radicals as micropulsing provides a ready supply of electrons. Thomas Valone, PhD states simply, “Electrons are antioxidants.”²⁰ Another researcher, Alfred J. Koonin, PhD concluded: “I feel that there is enough evidence to show that a low concentration steady stream electron flow ... acts as a highly potent antioxidant ...”²¹

Electrons acting as antioxidants have given us yet another way to understand how micropulsing may work—helping our bodies deal with free radicals. Essentially electrons can be viewed the same as any other nutrient such as vitamins and minerals.

CHRONIC DISEASES LINKED TO VIRUSES AND BACTERIA

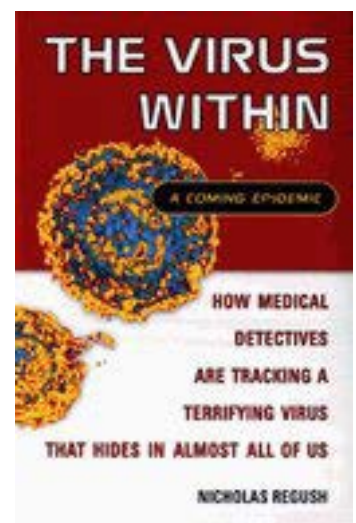
We've reviewed several ways microcurrents may work to assist the body to heal. Another explanation as to why people are helped, when using the Beck technology, is the mounting evidence that many chronic diseases may be linked to germs or pathogens—in the form of viral, bacterial, fungal or parasitic infections.

Today, our bodies are bombarded by many influences that trigger the disease process—dead foods lacking enzymes and laced with additives, foods contaminated with genetically modified organisms (GMOs), mental and emotional stress, and the onslaught of pollutants in our air, water and soils. Our bodies soon become fertile ground for the growth of pathogens—viruses, bacteria, fungus and parasites. If unchecked, these pathogens create disease. Eventually, the symptoms of ill health can no longer be ignored.

The link between chronic or non-infectious diseases and germs gained ground in the early 1980s when the research of two Australian doctors linked stomach ulcers and stomach cancer to the bacterium, *H. pylori*. Their findings were contrary to established medical thinking so it took many years for their research to gain acceptance. Almost twenty-five years later in 2005, their ground-breaking research was finally recognized with a Nobel Prize for Physiology.²² In the intervening years, scientists began to research the link between pathogens and diseases. Several types of cancer are now associated with a virus or other pathogen.²³

When our nervous system is invaded by pathogens, Parkinson's, multiple sclerosis, AIDS, Alzheimer's, autism, chronic fatigue syndrome (CFS), manic depression or bi-polar disorder, and schizophrenia are some of the maladies that can manifest.^{24,25,26}

Nicholas Regush was an award-winning and Emmy-nominated medical and science journalist at ABC News when he discovered that key research



Germ and Disease

In the late 1800s in France, the seeds were sown for two approaches to health—Germ Theory and Homeostasis Theory.

Let's look at the Germ Theory first. Medical researcher, Louis Pasteur, made a momentous discovery when he discovered the existence of germs and that germs were associated with infections and disease. As a result, it became accepted that germs were the cause of infectious diseases. At the time Pasteur believed that the body was germ-free in its natural environment. The Germ Theory, even today, is still the accepted paradigm by the medical establishment.



The second approach to health was put forth by Claude Bernard, a contemporary of Louis Pasteur. He suggested the Homeostasis Theory for health. He recognized the existence of germs. His message, however, was that germs are always with us and within us. These germs, he explained, only multiply to the point they create problems or disease when our internal environment is weak. In other words, our body processes or our immune system needs to be strong enough to keep the germs in check.

The Germ Theory focused on killing germs to avoid or get rid of disease. The Homeostasis Theory focused on strengthening the immune system to stay healthy. It is said that on his deathbed, Louis Pasteur agreed with Bernard.^{29,30,31} The difference between these two models remains the primary schism between the medical and natural health models of healing.

It appears that micropulsing helps neutralize and flush germs as well as improving the body terrain or internal environment.

linking viruses to disease was being ignored. In *The Virus Within*, an extensively researched book that reads like a detective story, he links the work of well-known scientists who have been ostracized because their research diverged from established medical thought—research linking neurological diseases to a virus.

With regards to mental illness, Regush reports:

... it is only a matter of time before these illnesses are proven to be mostly virally induced. ... herpes viruses, including HHV-6, due to their penchant for nerve tissue, are among the culprits likely involved in the complex process that alters the brain and results in mental illness.²⁷

Research is indicating that germs or pathogens are associated with disease. Neutralizing those germs can help the body eliminate them. Germs are less likely to breed and create problems within our bodies if we create a strong immune system and cleanse our inner environment.

Neutralizing pathogens in the blood and strengthening the immune system are two ways micropulsing may help the body heal ... even helping to overcome chronic diseases.

RESEARCH TO CLEAR MALARIA

Imoh Enang, a medical doctor in Africa conducted research using microcurrents to determine if blood electrification would be effective against malaria.

The study was started in 2002. The goal of the study was to include 60 people in the trial. The trial was stopped prematurely over a year later in 2003 after only 36 people were enrolled. Stopping early meant that several participants who were recently enrolled were unable to finish the testing protocol. A limitation of the study which led to stopping it early was that once patients tested clear of malaria, they no longer returned to complete the testing and lab work. This may be due to the fact they often had to walk many miles to the clinic and no longer saw the need once they tested clear.



Dr. Enang reported that 36 people received blood electrification with an age range from 18 to 38. The type of malaria was *P. falciparum*, known to be the worst strain. The malaria subjects were either asymptomatic or symptomatic. The original study design was to include patients with resistant malaria as well. However, at the time the study was stopped, no individuals with resistant malaria had yet been enrolled.

Blood electrification was administered daily for two hours until lab work showed negative for malaria. Each person was to be tested for malaria on days 0, 3, 7, 14 and 28.

Only 7 people completed all the testing. All 7 tested clear of malaria. When the study was stopped, 21 of the 36 subjects were clear of malaria. Of the 36 subjects, 12 were impacted by the study being stopped, however their loads were reduced during treatment and 3 had missing results on their blood tests so the status of the malaria was unknown. Most of these subjects tested clear from 3 to 14 days after starting the protocol.

This study is by no means conclusive. It does, however, indicate micropulsing for blood electrification may be effective in clearing malaria.

[Malaria Study](#)

HOW MICROCURRENTS MAY HELP THE BODY

We've presented several ways microcurrents as applied with a Beck unit may help heal:

- Nourishes the body's natural electrical system.
- Supports the body's immune system.
- Activates white blood cells that capture pathogens.
- Restores cells to a healthy voltage potential.
- Reduces viruses, bacteria, fungus, and parasites—including the malaria parasite.
- Acts as an antioxidant to clean up excess free radicals.

There are yet more ways that microcurrents may help heal. A chapter in *Electricity for Health in the 21st Century* titled "How the Beck Protocol Helps" describes the following additional benefits:

- Balances the nervous system—the sympathetic and parasympathetic systems.
- Increases detoxification—the process of getting rid of toxins.
- Improves blood circulation.
- Improves energy—increases the production of adenosine triphosphate (ATP) that is fundamental to providing energy to our cells.
- Increases the ability of cells to absorb protein.
- Accelerates healing.

[Electricity for Health in the 21st Century](#)

SUMMING UP

There is a definite possibility that microcurrent therapy or gentle levels of electricity help the body overcome diseases.

It is important to understand that, with the exception of the malaria study, there has been no formal research on micropulsing. However, one can see the historical use of microcurrents, the increasing research evidence of the use of microcurrents over the past few decades, and the growing body of anecdotal evidence using the Beck Protocol, builds a strong case for the potential value of micropulsing.

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