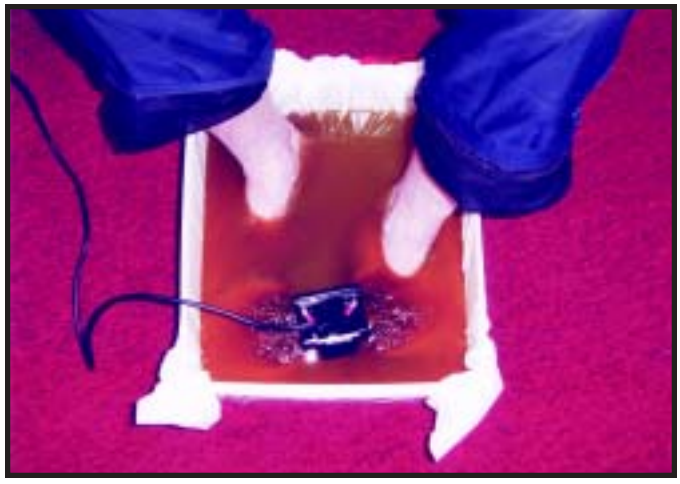
Ionic Detoxification

Photograph 1. At the start of a detoxification session using the IonCleanse, apparatus, footbath water shows up as clear just as it ran from the tap. Feet immersed in the water-filled basin are accompanied by the ionizing array attached to an electrical power supply delivering a low level direct current. This current causes the metals within the array in combination with water and salt to generate positively and negatively charged ions by separating oxygen and hydrogen in the water.

Photograph 2. Here is the detoxifying footbath as it appears 6 minutes into the session. The water is beginning to turn yellow, showing that detoxification is occurring through the individual's kidney and bladder area.

Photograph 3. This is the footbath as it appears 10 minutes into the detoxification session; water is beginning to turn orange-brown with orange indicating that metallic poisons are coming from the joints. The brown color shows that detoxification is occurring in the liver.

Photograph 4. With the elapsed time of 18 minutes into the detoxification session, the footbath water is becoming murky and bubbles of mucus are concentrating around the array. Such mucus indicates that this man is giving up his accumulation of medication taken over time for symptoms of an allergy to dairy products.



Photograph 5. With 27 minutes into the detoxification session, the treatment is finally concluding. By now the footbath is turning dark green which means that an elimination of poisons from the gall bladder is taking place.

Medical Journalist Report of Innovative Biologics

by Morton Walker, DPM with Randall Walker

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Detoxification – Getting the Issues Out of Tissues

At the University Health Clinic in Seattle, Washington, Patrick Donovan, ND, tells of toxic components in daily living which increase an individual's susceptibility to cancer, stroke, cardiovascular illness, diabetes, free radical activity, and many other degenerations. Numerous toxic factors include allergies, metabolic by-products, anxiety, emotional distress, dysfunctional relationships, genetic/metabolic disorders, overnutrition with excessive fat, sugar or protein, nutritional deficiencies, environmental poisons, heavy metals, infectious agents, smoking, poor hygiene, lack of sleep, functional/structural disabilities, and other noxious agents.[1]

Such factors, Dr. Donovan advises, bring on oxidative stress and immune-system problems. They, in turn, reshape a person's physiology toward disease-related processes, including: (1) a breakdown or lapse in the functioning of routine self-repair for the protection of tissue integrity; (2) depletion of the buffering reserves that ordinarily maintain the body's acid/alkaline balance, (3) alteration of normal biochemical processes; and (4) metabolic changes leading to decreased production or utilization of high-energy compounds the body needs for optimal functioning.[2]

Aging Results from the Accumulation of Toxins

Most health professionals who practice Complementary and Alternative Medicine (CAM) affirm: *Aging is a gradual accumulation of toxic chemicals and other substances in the body which cause genome destabilization and resultant catastrophic breakdown of tissue homeostasis.* There is an inevitability to this aging process. Even the most ardent adherents to a healthy lifestyle will experience some form of damage from toxic material that we absorb from the environment. Although the absorption of toxins is initially sublethal, gradual poisoning of one's physiology eventually becomes the source of chronic disease and fatal systemic failure. Such an insidious, inescapable process is the reason that detoxification is now accepted as a major component of anti-aging medicine.

Harmful manufactured substances that remain unrecognized by the cells tend to linger in the body. They become lodged in organ tissues as ever-present noxious elements. Most are industrial poisons which lie dormant while they accumulate, and the human body possesses no way to remove them on its own.

Detoxification includes ridding the body of actual physical pollutants such as toxic metals, harmful industrial chemicals, parasitic disease organisms, dead cellular material, and ordinary bodily waste products. Given the variety of harmful substances that accumulate in the body, knowledgeable holistic healers advocate a variety of methods to cleanse the patients' insides. Numerous techniques for detoxification are necessary because some procedures manipulate the gross anatomy and some operate at a cellular level. While some detoxification procedures are more effective than others, each step in the process has its job to do.

Dr. Karen Kelley Uses the Ionic Detoxification Process

Interviewing with us from her Holistic Healing Arts Center in Foley, Alabama, the homeopath, psychotherapist, and nutritionist, Karen Kelley, DC, ND, discussed her primary patient detoxification technique.

"I use a basin containing sea salt dissolved in one cup of purified water which carries the gentle electrical charge from a multiple-metallic *array* set into the water. This array is plugged into a down-charging unit drawing electrical power from the wall. The patient feels no shock but rather has positive and negative ions created around his or her feet in the footbath," Dr. Kelley explains. "Most patients test for a negative ion treatment; others need a positive ion treatment, and a few require a combination of both. During the beginning number of treatments, I use an array setting to generate for alternating positive and negative ions.

"Most of us are so loaded with toxins, detoxification using the IonCleanse actually makes energy for healing available. Toxic overload diminishes markedly for patients; the deleterious body ions are attracted out of the tissues through the feet and go into the water's ionic components," states Dr. Kelley. "The footbath water changes color which is a manifestation of toxin removal from the body's tissues. Reading the water's color change is diagnostic of what is being released by the patient (see photographs 1-5 on facing page).

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"For instance, when the footbath color turns bluish, one recognizes toxic dumping from the kidneys; a yellowish tinge means that the bladder is giving up its toxins; orange relates to joint toxins. Fibrotic tissue in arthritic joints is an attractant for environmental toxins – they are more vulnerable," Dr. Kelley says. "Brown water indicates that a toxin dump from the liver has taken place. *Candida albicans* shows up as a cheese-like scum floating on the water's surface. Often then a Herksheimer's reaction occurs. Flecks of black in the water demonstrate that heavy metals are being released. Globlets of oil floating as a slick in the water means that fatty tumors such as lipomas are breaking up.

"The detoxification procedure usually takes 30 minutes for fourteen treatments administered every-other-day. Very sick patients are given up to 40 treatments, depending on how quickly symptoms subside. Pain goes away first. Once the footbath water stops changing color and stays clear, large amounts of toxin are no longer being dumped. More treatment is continued to give the array's positive and negative ions combined with ions in the water a chance to heal existing pathology at a cellular level," Dr. Kelley affirms. "Some color changes may come from the water source itself. Tap water derived from city pipes may have its own quantity of toxins. The extent of components in the water can be tested by running an array current through the water alone without one's feet in it. What shows up as a color change is bound to be the water's own baseline color. Other color changes and residual odors left in the water can then be judged as coming from the patients themselves."

"Getting the Issues Out of Tissues"

Assuring us that she can detoxify almost all aspects of a patient – even to emotional and mental dysfunctions arising out of stress – Dr. Karen Kelley refers to her IonCleansing therapy as "getting the issues out of tissues." Dumping toxins gives the body an opportunity to heal those specific body parts from which the toxins are arising.

"In my clinic we have observed some really wonderful results. Pain disappears fast, even after just one visit. In addition to the footbath technique of detoxification, this Holistic Healing Arts Center utilizes many adjunctive therapies, and they include electroacupuncture according to Voll (EAV), psychospiritual counseling, color therapy, sound therapy, a particular laser therapy offered by the same distributor, A Major Difference (AMD), who furnishes me with the IonCleanse® and much more," says Dr. Kelley.

"However, of all my treatment procedures, most rewarding for me personally are results that I witness from use of the IonCleanse array immersed in a water bath for the feet."

Cleansing Effects of Water

Being a powerful solvent, water is a cleansing agent for the body. Popular belief leads us to assume that we can drink enough water to harness its cleansing ability. The Institute of Medicine in Washington, DC, an independent group of experts that advises the federal government on health issues, reports that women should consume about 91 ounces (2.7 liters) of water a day. Men should drink about 125 ounces (3.7 liters) per day.[3]

But there is a limit to how much water a person can safely and comfortably drink. Drinking too much water is dangerous and potentially fatal. Partly for this reason, A Major Difference (AMD), has designed its IonCleanse, detoxifier to bypass the digestive system entirely. Using the IonCleanse® array, water is absorbed directly into the human tissues. After its microbiological activity, the absorbed water leaves the body without engaging the digestive tract. This entire beneficial process occurs without any effort or discomfort to the patient, and an ideal whole body detoxification takes place by means of applying the footbath.

After oxygen, water is the second most important inorganic nutrient on which life depends. About 60% of the human body is composed of water, including 3/4s of cellular protoplasm (intracellular) and 4/5s of blood, lymph and other extracellular fluids.[4] Water is involved in metabolic processes as either a reactant or a product. Proper water volume is crucial to homeostasis. The hypothalamus carefully regulates water volume using retention, excretion and other mechanisms, including thirst. Water volume is intricately related to two fundamental aspects of metabolic activity: electrolyte concentration and acid-base pH.

Electrolytes are molecules which break apart when dissolved in water and dissociate into ions (charged particles). Ions are atoms or molecules (polyatomic ions) which are not in electrical balance – their number does not equal the quantity of protons. As mentioned, it is possible to suffer serious health consequences from drinking too much water. This is because water promotes ionic activity and water itself is a primary source of ions.

Electrolysis, Hydrolysis, & Redox Reactions

Electrolysis, nearly as old as the study of electricity, is a chemical process that injects electricity into water and splits its molecules into ions. In 1807, Michael Faraday observed that electrolysis could break a chemical compound into its constituent elements. From this observation Faraday hypothesized that electricity was somehow involved with binding elements together. His correct assumption is the basis for our understanding of modern chemistry and nuclear physics.

In electrolysis, the negative pole of the electrical source is the *cathode* and the positive pole is the *anode*. Sending an electrical current through water causes some of the water molecules to divide and form hydrogen ions (H+) plus hydroxyl ions (OH-). These two ions are fundamental to organic chemistry and drive reactions toward oxidation and reduction (redox) reactions.

Freeing electrons and attaching them to other molecules is part of the ordinary activity inside every cell. For example, the complex pathway which produces the cellular energy component Adenosine 5'-TriphosPhate (ATP) within the mitochondrial inner membranes includes the Electron Transport System (ETS) segment of the Krebs cycle. During this part of the Krebs cycle, the coenzyme Nicotinamide Adenine Dinucleotide (NAD) that's derived from the B vitamin nicotinic acid is converted to its reduced form of Nicotinamide Adenine Dinucleotide (NADH) with the addition of a hydrogen atom and two electrons. NADH then delivers the electrons to a series of protein carriers which transports them along the membrane.

Redox reactions are one way that ions are created. Some elements readily become ions when they come into contact with an electron donor or acceptor, such as water. The toxic

metals aluminum (Al), lead (Pb), and mercury (Hg) become ions in an aqueous solution. The chemical process of dissolving solutes in water is called *hydrolysis*, which translates from the Greek word *lysis* meaning "breaking up with water."

Toxic metals are poisons changed into ions. By carrying its ions into the body, water treated with the IonCleanse® separates entire molecules it encounters into their polyatomic ionic components. Polyatomic ions do not originate from redox reactions (element to element transfer of electrons). Decomposition of large molecules into polyatomic ions requires a solvent like water for them to react. These smaller ionic components remain in solution when the ionic water leaves the body, carrying dissolved waste materials out with it.

As a result of all this ionic activity, poisons that are normally slow to exit the human body are dissolved in the ionic water and flushed out. As described by Dr. Kelley, during an IonCleanse® treatment, the footbath water changes color dramatically. Although some of the color change is generated by the electrodes, most of the visual transformation that is seen is material exiting from the patient's body. These toxins are not reabsorbed because the ionic waste material in the basin coagulates into a thick soup when exposed to the open air.

An important design feature of the IonCleanse® is its electrical pulsation. The electronic control unit is able to modify the flow of electricity, both pulsing it and reversing the poles. Pulsing the electrical charge prevents the concentration of ions from building up too much in the reservoir. These momentary pauses allow the body to metabolize the ions before the next pulse. Reversing the poles helps keep the electrodes clean from buildup of material dissolved in the water (a plating effect.)

A particular effect of the electrolysis generated by the IonCleanse® is to produce a variety of molecules from the water. There are many combinations of hydrogen and oxygen. One such ion is *hydronium* with the formula $H3O^{+}$.

Another important organic molecule from electrolysis is *hydrogen peroxide*, H2O2. Hydrogen peroxide is always present in the body, both inside and outside of cells. It is a weapon used by the immune system and is produced by polymorphonuclear leukocytes which have engulfed a microbe. A cellular organelle called a *peroxisome* produces the enzyme *catalase* which catalyzes hydrogen peroxide back into water and a singlet oxygen atom. Peroxisomes and catalase are especially abundant in the liver, a key organ for detoxification.

Electrolysis has been studied extensively for use in water treatment plants from which toxic metals, pesticides, herbicides, and industrial pollutants must be removed. Investigations undertaken by water treatment experts show just how powerful ionized water is as a disinfectant and detoxifier.

Treatments are Antimicrobial

Physicians were recently warned about a statistical link between use of antibiotics and an increased risk of breast cancer.[5] Knowing this, CAM physicians must find safer, innovative methods to combat their patients' bacterial infections. Fortunately, water treatment experts found that electrolysis of water in the presence of carbon will produce an abundance of hydrogen peroxide in quantities sufficient to disinfect effluent in a municipal sewage plant.[6] Using the IonCleanse®, the same method could be used to kill bacteria inhabiting a patient's body. The human body conducts electricity, so some of the electrolytic current generated by the IonCleanse® travels through the reservoir and makes a circuit with the patient's body. Since carbon is omnipresent throughout organic chemistry, we can expect the same hydrogen peroxide production measured in the sewage plant to occur within a patient's body.

Other researchers reported that metals have a beneficial effect on the amount of hydrogen peroxide produced.[7] Physicians could consider having patients take mineral nutrients such as the E-lyte® Liquid Minerals produced by BodyBio before an IonCleanse® treatment to enhance this antimicrobial effect.

Research has also shown that a tiny electrical pulse all by itself can destroy aqueous bacteria.[8] In addition to temporarily increasing the amount of hydrogen peroxide in the body, the electrical pulses generated during an IonCleanse® treatment are an antimicrobial weapon. Also lethal to bacteria is the fluctuating pH that occurs metabolically during a detoxification session.

Other research indicates that the IonCleanse® could be used in combination with a sonication device to dislodge bacterial clusters.[9] The combined antimicrobial assault administered can help CAM physicians bolster a patient's overwhelmed immune system by combating harmful microbes.

Treatments Break Down Toxic Chemicals

The electrical footbath treatments could become a crucial component of preventative healthcare in farming communities where people are exposed to poisons used by agri-business every year during growing season. Research has shown that electrolysis which produces a combination of hydrogen peroxide and iron ions will break down several types of herbicides.[10] In a technological breakthrough, water treatment experts at Cornell University devised an electrolysis process using water containing iron ions and ordinary ionized water to achieve the Fenton chemistry which breaks down pesticides such as diazinon.[11] Since iron is an essential mineral for metabolism, we can expect the same effect produced by the Cornell researchers in water treatment cells to take place within a patient's body.

Water Performs Feats of Biochemical Magic

In a water molecule, there are two more positions for shared electrons around the oxygen atom. These available positions provide a strong attraction between the oxygen atom of one water molecule and the hydrogen dipoles of nearby water molecules. For this reason, water molecules form clusters by arranging themselves in a distorted tetrahedral pattern to accommodate all of the hydrogen bonds formed between nearby molecules. Hydrogen atoms in these clusters are in constant motion "jumping" between two positions in the tetrahedral lattice: one position favoring its own oxygen atom, and the other position favoring a nearby oxygen atom.

The result of all this hydrogen bonding is to form a giant molecule in which each oxygen atom is surrounded by four hydrogen atoms, thereby filling all of its outer region. The hydrogen bonds between water molecules provide so much attraction, liquid water has the unusual characteristic of being denser than solid water (ice).[12]

The structure of liquid water gives it an ability to perform feats of molecular magic such as passing through walls. Human

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skin is thin, only 4 mm thick on the soles of the feet. Although it is the outer covering of our body which protects us from all the harmful elements in our environment, our skin is more like a membrane than a shell. Water is able to permeate this barrier very easily.

The movement of water from the basin reservoir into the patient's feet and up into the body is assisted by an elementary chemical force known as *osmotic pressure*. Water naturally moves through a partially permeable membrane from the side where water is concentrated to the other side where it is less concentrated. The buildup of fluid in the body (edema) later reverses itself when the hydrostatic pressure in the body increases to the point where some water is forced out. The exit offering the least resistance to the excess water is through the feet and out their skin pores which were opened when the water first entered. This process fluctuates continuously during IonCleanse® treatment.

The toxic metal ions and the polyatomic ions from the harmful chemicals which were broken apart are attracted out of the body and into the footbath towards the IonCleanse® electrode of the opposite charge.

Experimenting with Electrolyte

During an IonCleanse® treatment, formation of ions does not take place entirely in the basin. In addition to the ionic laden water which permeates a patient's skin and flows into his or her body, the tissue water already present is also subject to the electrical forces emanating from the electrodes. It could be potentially harmful to add electrolyte directly to the soaking water in the basin during an IonCleanse® treatment. However, medical practitioners could experiment with taking electrolyte before an IonCleanse® treatment to temporarily increase the ionic activity of the body's circulating and interstitial fluids.

The IonCleanse® is so effective, medical practitioners should consider experimenting with the administration of anti-oxidants, such as a large dose of vitamin C and some superoxide dismutase, to metabolize any remaining free oxygen that was created during the treatment session. It's additionally beneficial to provide patients with an orally-administered multimineral complex to quickly restore major elements and trace elements that may have become temporarily depleted by the IonCleanse® treatment.

Michael Dobbins, DC, Reports Breast Cancer Improvement from IonCleanse, Usage

"While I don't use IonCleanse, by itself but rather as part of an overall detoxification protocol, I find that this device is a marvelous means of accelerating the entire detox effect," says Michael Dobbins, DC, who in company with his wife, P.J. Dobbins, DC, conducts their Dobbins Affordable Chiropractic Clinic located in Alameda, California. "When patients observe the vast amount of wastes that come out of their bodies and deposits in the footbath water, this has a highly beneficial psychological effect on them. They feel a sense of being cleaned out. What people tell me is that they sleep better; feel a great deal of energy the next day; and other effects that would accompany detoxification.

"Most dramatic are the effects I've observed from detoxifying for cancer, especially breast cancer. A school teacher in her mid-40s that I am currently treating is undergoing chemotherapy and many of the other forms of orthodox oncological care to overcome breast cancer. She had been diagnosed about one year ago. This school teacher had faced gastrointestinal complications from conventional cancer therapies, but now her bowel pattern has improved markedly," says Dr. Dobbins. "Severe diarrhea has resolved for her; insomnia is gone with sleep coming easily and deeply; plus I've observed that my patient's skin tone is less sallow and more ruddy.

"She has been taking her IonCleanse® treatments twice weekly for four weeks and results are excellent," Dr. Dobbins states. "Her breast cancer condition is stable. She is doing well and accepts my suggestions for upgrading her lifestyle by means of better nutrition, more exercise, and other holistic health practices.

"Since I lecture to my colleagues weekly, lots of success stories had been told to me by other chiropractors who utilize the IonCleanse®. When I saw that their anecdotes citing patient benefits were true, I became convinced that this therapeutic device should become part of my armamentarium for achieving detoxification," confirms Dr. Michael Dobbins.

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