True Wave Heater Technology

As a leader and innovator in the infrared sauna industry for the last 18 years, Clearlight Infrared by Sauna Works has been manufacturing infrared saunas that are both luxurious and effective. While our cabins are exceptional quality, we have spent the last 18 years researching and studying infrared therapy to bring you the most effective infrared sauna available.

Over the last 5 years there has been a big debate as to whether Carbon heaters or Ceramic heaters are “better”. Carbon heaters produce high quality, long wave infrared heat, but the problem is they do not produce a lot of infrared heat – in our testing they seemed weak. Ceramic heaters are powerful and emit a lot of infrared heat, but the wavelength tended to be shorter, thus less therapeutic.

Our R&D department at Clearlight Infrared has ended that debate by introducing the ONLY combination Carbon/Ceramic far infrared heater.

Clearlight Infrared True Wave II far infrared heaters combine Carbon and Ceramic to produce healing infrared heat that is unmatched. Our heaters are comprised of micro-thin carbon fibers (1/1000th the thickness of a human hair) combined with our patented ceramic compound. We start with a high quality organic carbon fiber sheet. We then add our high output (high emissivity) ceramic compound to the heater allowing out heaters to produce long wave infrared heat with a very high infrared output. They are fantastic infrared heaters!

The carbon in our heaters allows the heater to produce long wave far infrared heat. This long wave infrared heat penetrates deeper into your body and the infrared heat is more readily absorbed. The ceramic in our heaters gives the heaters a very high infrared output when compared to traditional carbon heaters so we can concentrate the heat directly on your body.
Why Far Infrared

WHAT IS FAR INFRARED RADIANT HEAT?

Sunlight is a combination of visible light and invisible light. The seven colors of the rainbow are visible lights, and infrared rays and ultraviolet rays are invisible lights. Infrared rays are one of the sun’s rays. Infrared rays are the healthiest, penetrate into your skin deeply and they dissolve harmful substances accumulated in your body. The Infrared Rays vitalize your cells and metabolism.

Far infrared waves penetrate deep into our body for a deep heating action which allows for the body to activate the sweat glands. The sweat glands offer one of only a few mechanisms that the body has to eliminate toxins and since the skin is the largest organ in the human body it is apparently a very good means for elimination. Bring the benefits of a far infrared sauna into your home with a new Clearlight Infrared Sauna!

When far infrared waves are applied to water molecules (comprising 70% of our body) these molecules begin to vibrate. This vibration reduces the ion bonds and the eventual breakdown of the water molecules causes encapsulated gases and other toxic materials to be released.

The sun is the primary source of radiant energy, but not all of this energy is beneficial. Although life needs energy from the sun, too much sunlight damages the skin. Far infrared heat provides all the healthy benefits of natural sunlight without any of the dangerous effects of solar radiation.

For years, the healthcare industry recommended infrared heat lamps as a source of far infrared heat but the lamps were cumbersome, extremely hot and difficult to maintain at a constant temperature. Today, many healthcare professionals use far infrared infrared heaters to treat a variety of diseases throughout the world. Clearlight Infrared Saunas use state of the art Carbon/Ceramic True Wave II heaters.

The efficacy of far infrared waves is very broad and the subject of recent study by NASA. Among the infrared waves, the far infrared rays, which have a wavelength of 8-14 microns, are especially good for the human body. These waves have the potential to penetrate 1.5 to 2 inches or more into the body allowing for deep heat and raising your core body temperature from deep inside. The deep heat and far infrared is why scholars believe that the Ondol (traditional warm floor of Korea) is good for health because the materials for the Ondol are stone and earth both of which radiate far infrared waves when heated.

The far infrared rays consist of similar wavelengths as that which is emitted naturally by the human body. This is one potential explanation of why many feel energetically rejuvenated and balanced from contact with far infrared waves. It is also believed that far infrared waves help improve blood circulation and recovery from fatigue.
Why Far Infrared Technology?

Clearlight Infrared Saunas use Far Infrared energy to penetrate the body's tissue. Tests have shown that the energy output is tuned so closely to the body's own radiant energy that our bodies absorb as much as 93% of the far infrared waves that reach our skin.

By comparison, conventional saunas must rely only on indirect means of heat: first, on convection (air currents) and then, conduction (direct contact of hot air with the skin) to produce its heating effect. Your Clearlight Infrared Sauna is best used at temperatures between 100 to 125F versus 180 to 220F for traditional hot-air saunas. Since conventional saunas require 30 to 90 minutes of warm-up before use, electricity costs are reported to be a lot higher than those of Clearlight Infrared Saunas which are ready to use in 10-15 minutes.

IS INFRARED HEAT SAFE?

Yes! Infrared heat is all around us. The photo below shows that all things give off and receive infrared heat. This image was taken with a camera that takes a regular photograph and an infrared image of the subjects at the exact same time.

The human body gives off and receives infrared heat and in the far infrared band. Other surfaces, like a warm street or heated vending cart give off infrared in the middle and near infrared band.

Do you want to experience far infrared heat right now? Take your hands and put your palms together. Move your hands about 1/2 an inch apart. You will feel warmth emanating from your palms. This is far infrared heat very similar to the infrared heat emitted from our True Wave II heaters. Radiant far infrared is all around us and is essential for human life.
Why is infrared heat better than traditional sauna?

Clearlight Infrared far infrared saunas use low-EMF True Wave II Carbon/Ceramic heaters, which do not turn red hot, but instead produces invisible, far infrared heat. This is the same type of heat as produced by the sun and our bodies. Infrared heat is very safe and not at all like the heat produced by microwaves. In an infrared sauna, only 20 percent of the energy is used to heat the air, leaving the rest of the energy to heat the body. The radiant heat can penetrate deep below the skin producing a gentle warming inside the body.

The temperature inside an infrared sauna is adjustable and averages a comfortable 100 °F to 140 °F. This allows a person to sweat faster and to tolerate a longer period of time inside the sauna, allowing for the therapeutic effects to occur. Typical sessions last 20 to 45 minutes and can be repeated once or twice during the day to maximize the benefits. Infrared saunas leave you feeling invigorated, not depleted like conventional saunas.

Infrared heaters warm the body in the same manner as natural sunlight. Far Infrared Heat therapy uses the wavelength of the visible and non-visible light spectrum of sunlight that heats the body normally. Traditional saunas raise the temperature of the air to a very high level within the chamber to warm the body. Some people have difficulty breathing in this extremely warm air. Far infrared saunas work differently. Instead of heating the air within the enclosure, far infrared saunas heat the body directly. The result is deeper tissue penetration. In the far infrared sauna, the body perspires and receives all of the healthy benefits but avoids the harmful and extremely hot air of a traditional steam sauna.

Why Detoxify?

Why Is Detoxification Important
Excerpted from: Literature Review & Comparison Studies of Sauna/Hyperthermia in Detoxification Townsend Letter for Doctors, June 1992
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The past 150 years have been a time of incredible progress for medicine, science and industry. Because of these advancements we now enjoy longer, more productive lives. However, there are many who pay a tremendously high price for our modern lifestyle. The by-products of our chemical technology have resulted in ubiquitous contamination of our atmosphere, lakes, oceans and soil. Our natural environment is now permeated by a barrage of “unnatural” substances.

Unquestionably, many of the chemical sources have been in existence for centuries. However, today we are exposed to chemical concentrations far greater than were our ancestors. Although the human mechanism is known to be accommodating, ecological alterations are now occurring at a faster rate than our bodies are able to adapt. We are now faced with a situation where inadequacies or uncertainties centering around the manufacturing, use, storage, and disposal of toxic chemicals, have resulted in an overwhelming number of environmentally-induced illnesses.
Since 1965, over 4 million distinct chemical compounds have been reported in scientific literature. Over 6000 new chemicals were added to this list between 1965 and 1978. As of 1981, of over 70,000 chemicals in commercial production, 3,000 have been identified as intentionally added to our food supplies and over 700 in drinking water. During food processing and storage 10,000 other compounds can become an integral part of many commonly used foods. Added to this list of potential body toxins, petrochemicals, industrial waste, medical and street drugs, radiation (X-rays, nuclear fallout etc.) and tons of pesticides, herbicides, and insecticides, the result is an incredible chemical avalanche to have befallen the human race in a relatively short period of evolutionary history.

There is currently a wealth of scientific evidence showing that thousands of drugs, preservatives, pesticides, and other pollutants remain stored in the body long after exposure. We know for example that an organochlorinated pesticide such as the metabolites of DDT have a half life of between 20 and 50 years in the fat deposits of humans. According to the U.S. Environmental Protection Agency over 400 chemicals have been detected in human tissue; 48 were found in adipose tissue, 40 in breastmilk, 73 in the liver and over 250 in the blood.

The process of bodily accumulation and storage of toxins is known as “toxic bio-accumulation”. Though the predominate storage site in the body is the fatty tissue, toxins may re-enter the bloodstream during times of physical stress (i.e., illness, fasting, excessive heat, exercise) or emotional stress.

Every organ that is accessible to these chemicals, which have been mobilized or released from the fat, is being continually exposed at low levels. As stated by Dr. William L. Marcus, Senior Advisor and Chief Toxicologist for the U.S. Environmental Protection Agency, “It’s a chronic exposure. That’s why chemicals like dioxin, even in small amounts, are extremely dangerous. Unfortunately the human body has no previous experience with these chemicals and there is no natural machinery in the body to break them down, much less eliminate them.

Human accumulation of such compounds as DDT, PCP, PCB, and dioxin, reflect biologically persistent chemicals which are partitioned in the body from water into lipids. Eventually the metabolizing of xenobiotics (chemicals foreign to the biological system) leads to the accumulation of the chemicals and/or their products in lipid deposits throughout the body, particularly in adipose tissue. The simple chemistry involved in this process can be illustrated by the fact that some chemicals readily dissolve in water, while others dissolve only in oil bases. Oil soluble chemicals therefore have a tendency to accumulate in body fatty tissue or lipids, which are also insoluble in water. There is no such thing as a fat “cell”...[rather] almost every cell has a fat component. The brain has a high fat content as does virtually every organ.

Directly or indirectly, toxic residues find there way into our air, food and water supplies. The net effect of this ecological overload is to alter the body’s balance or “homeostasis”. This interference with our natural biological tendencies to restore internal balance, results in “disease” in one form or another. According to Professor Edward J. Calabrese of the University of Massachusetts, and author of Pollutants and High Risk Groups, “It is this homeostatic process which neutralizes the pollutant’s effect and returns the system to equilibrium.”
Marshall Mandell, MD, nationally renowned in the field of bio-ecologic medicine, wrote in a recent publication that the influx of chemicals in our society today “has resulted in a lowered threshold of resistance and subsequent inability to cope with the natural and unnatural environment due to altered body metabolism, enzyme dysfunction, nutritional deficiencies, and hormonal imbalances.” Health depends on the balance of both external and internal environmental forces.

There is a wealth of literature documenting illnesses in humans from exposure to chemicals as listed above. These illnesses include cancers of virtually every organ system of the body, as well as leukemia, liver disease, pulmonary damage, anemia and blood changes, nervous system disease, immune system damage, psychological damage, reproductive and fertility impairment, and kidney dysfunction. There are also many sub-clinical abnormalities that are suspected to result from presumed chemical exposure and the list grows longer each year.

In response to the above facts, many health care practitioners have been recommending a vast array of detoxification programs. Circulating toxins and toxic bowels need proper cleansing. The removal of these toxins is relatively well known. When toxins are deposited in fat storage sites this becomes much more complicated. The only way to remove toxins from the fat storage sites is to mobilize the toxic fat. Heat-stress [of a sauna] is an effective method of removing fat-stored toxins from the body.