

## Scientific Explanation of iTeraCare Wand

### More to Light than Meets the Eye

Light carries information in ways you may not realize. Cell phones use light to send and receive calls and messages. Wireless routers use light to send pictures of cats from the internet to your computer. Car radios use light to receive music from nearby radio stations. Even in nature, light carries many kinds of information.

The electromagnetic spectrum describes all the wavelengths of frequency, both seen and unseen. The light we can see, made up of the individual colors of the rainbow, represents only a very small portion of the electromagnetic spectrum. Most of the light in the universe is invisible to our eyes.

Light travels in waves, much like the waves you find in the ocean. As a wave, light has several basic properties that describe it. One of which is frequency.

On one end of the electromagnetic spectrum are radio waves, which have wavelengths billions of times longer than those of visible light. On the other end of the spectrum are gamma rays, with wavelengths billions of times smaller than those of visible light.

In between these are what's known as the "terahertz" frequency range, or "THz Gap". It is called a "gap" because the technology for its generation and manipulation is still in its infancy. This band of electromagnetic frequency lies within the region between microwave and far-infrared.

Almost every molecule has a 'fingerprint' spectrum in the terahertz frequency range. Terahertz frequency is non-ionizing, meaning it doesn't cause harm like ionizing radiation. Ionizing radiation has a higher frequency and shorter wavelength than non-ionizing radiation and can be a serious health hazard: exposure to it can cause burns, radiation sickness, many kinds of cancer, and genetic damage. Non-ionizing terahertz frequency is safe as opposed to ionizing radiation/frequency.

### How Does It Work?

#### Frequency Determines Physiology

Our bodies are made up of an array of materials. Beyond the organic flesh and blood that first come to mind lie the inorganic crystalline-based mineral structures.

The skin is the body's largest organ. The dermis comprises a dense network of mechanoreceptors, in addition to nerve endings that penetrate the epidermis and together provide the senses of touch, pressure, vibration, pain, and heat. It works as the body's thermoregulator, controlling blood flow within a few millimeters of the body surface and aids the sense of balance to modulate posture and gait.

The way in which the Terahertz frequency vibrations travel through our crystalline structures within us determines the fundamental properties of the material, i.e., you!

Piezoelectricity is the electric charge that accumulates in certain solid materials—such as crystals, certain ceramics, and biological matter such as bone, DNA, and various proteins—in response to applied mechanical stress.

The word piezoelectricity means electricity resulting from pressure and latent heat.

The iTeraCare Device vibrates at the same molecular level as our DNA, RNA, and Proteins thus influencing our health in a positive manner.

### **Hydro-Electric Machines**

Just as the earth is roughly 70% water, so too are our bodies. There can be no doubt that water is life. In addition, we have over 100 “ion channels” in the human body that relay information in the form of frequency. They synchronize an array of biological processes, (such as  $\text{Ca}^{2+}$ ,  $\text{Na}^{+}$ ,  $\text{K}^{+}$ -ATPase) thus maintaining membrane voltage.

“Water is the driving force of all nature.” - Leonardo da Vinci

“If you want to find the secrets of the universe, think in terms of energy, frequency, and vibration.” - Nikola Tesla

One of the ways the Terahertz Device works is through hydrogen bonds and water channels called aquaporins. The water around proteins absorbs more terahertz than pure water, which helps our proteins fold correctly.

The correct folding of proteins is essential for cellular homeostasis and the prevention of disease.

Molecular vibrations of hydrogen bonds in proteins are important because they regulate the function of proteins. The capacity of DNA, RNA, and Proteins to catalyze energetic reactions in the body and convey information depends on their vibrational states accessible using TERAHERTZ.

IN OTHER WORDS, You are a Hydro-Electric Being, and terahertz DIVINE FREQUENCY targets these mechanisms in you!

### **The Terahertz DNA Damage Response**

The prime objective for every life form is to deliver its genetic material, intact and unchanged, to the next generation. This must be achieved despite constant assaults by endogenous and environmental agents on the DNA.

To counter this threat, life has evolved several systems to detect DNA damage, signal its presence and mediate its repair. Such responses, which impact a wide range of cellular events, are biologically significant because they prevent diverse human diseases.

Studies show that terahertz frequency waves enhance hydrogen bond vibrations leading to openings between the DNA strands.

This then triggers the DNA Damage Response (DDR).

This is a good thing because it triggers a reaction that upregulates genes and pathways that actually guard your genome, such as the gene called P53.

### **How does this work?**

Water is well known as a substance of the highest importance for the stability and functioning of biological macromolecules. Deoxyribonucleic acid (DNA) is not an exception.

Terahertz stimulus allows for breaks in the hydrogen bonds on DNA inducing the DNA Damage Response.

Each of the 10 trillion cells in the human body receives tens of thousands of DNA lesions per day. These lesions can block genome replication and transcription, and if they are not repaired or are repaired incorrectly, they lead to mutations or wider-scale genome aberrations that threaten our health.

Terahertz frequency induces a short duration of the DNA Damage Response which initiates DNA Repair to take place.

### **Heat Therapy**

Heat therapy works by improving circulation and blood flow to a particular area due to increased temperature. Increasing the temperature of the afflicted area even slightly can soothe discomfort and increase muscle flexibility. Heat therapy can relax and soothe muscles and assist the body to help heal damaged tissue.

“Those who cannot be cured by medicine can be cured by surgery. Those who cannot be cured by surgery can be cured by fire [hyperthermia]. Those who cannot be cured by fire, they are indeed incurable.” — Hippocrates

Applying heat to a body part stimulates blood circulation to the injury site. This oxygen-rich blood brings nutrients to the affected area, promoting healing. Heat also helps to remove lactic acid buildup from overtaxed muscles, which allows them to “un-clench.”

“If there’s a way to heat the bones, then all diseases can be treated.” — Hippocrates

Researchers have discovered that heat applied to the bone keeps stem cells healthy. The enhanced activity of the heat helps rebalance the cells’ state of equilibrium or homeostasis. The recovery of protein homeostasis by enhanced heat activation was shown in both mouse and human hematopoietic stem cells. Protein damage impairs stem cells during aging and likely contributes to disrupting blood and immune cell production in older people.

In summary, the Terahertz frequency enhances hydrogen bond vibrations leading to enhanced protein folding and induces the DNA Damage Response which triggers the expression of the “Guardian of the Genome” P53. It also synchronizes an array of hydro-electrical voltage

properties such as Aquaporin water channels,  $\text{Ca}^{2+}$ ,  $\text{Na}^+$ ,  $\text{K}^+$  -ATPase ion channels thus maintaining membrane voltage. Our body and cells need a specific amount of energy (or voltage) to work. Without proper voltage, your body can't heal. Finally, the heat application using the Terahertz Device has been shown in research to assist the body in the healing process.