



PEMF Prime Academy

Certified PEMF Expert

Module 8

Mitochondrial Dysfunction

PEMF Prime Academy

Mitochondrial Dysfunction – a new disease?

Your Health depends on your Mitochondrial Function!

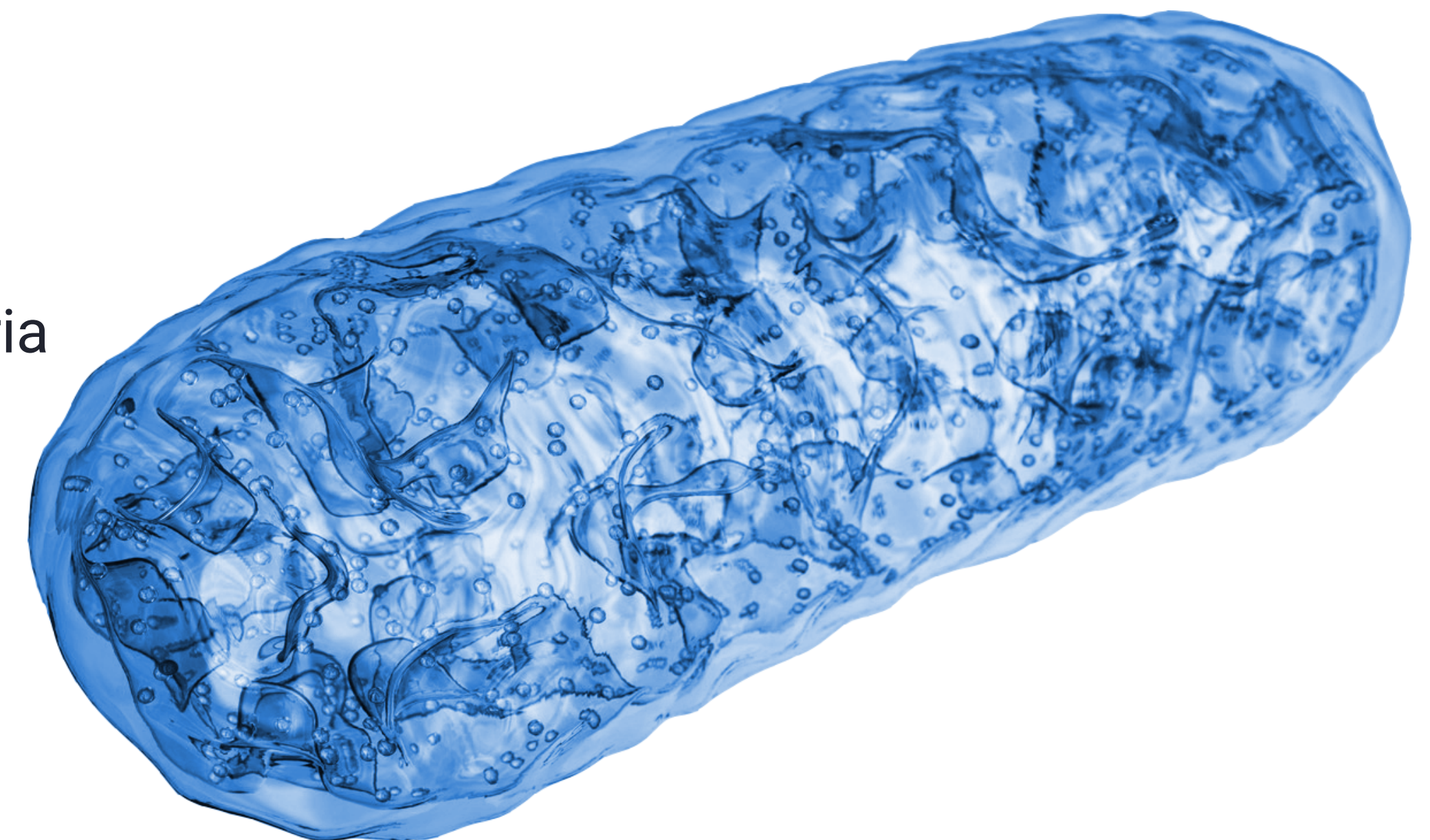
What are Mitochondria?

- ◆ Mitochondria (plural) or Mitochondrion (singular) are like battery packs of your cells
- ◆ They break down nutrients, convert them into energy and cells use this energy to carry out functions
- ◆ This process is called cellular respiration
- ◆ The matrix of mitochondria: convert the air we breathe and the food we eat into energy that our cells use to grow, divide and function
- ◆ Mitochondria produce energy called ATP (adenosine triphosphate)
- ◆ This energy is needed for every physiological function: opening your eyes, digesting food etc. and vital to heal and regenerate your body
- ◆ Your Mitochondria determine the quality of your life, your health and even how long you live

Mitochondrial Dysfunction – a new disease?

Your Health depends on your Mitochondrial Function!

- ◆ Mitochondria are found in almost all body cells and produce more than 90% of your cell's energy
- ◆ Unless you suffer from a mitochondrial disease or dysfunction, Mitochondria usually function uniformly
- ◆ They have their own DNA different from the DNA of your cell nucleus
- ◆ Nucleus DNA is your “genetic DNA”
- ◆ Mitochondria DNA is the “environmental DNA”
- ◆ This means you are not a victim of your DNA with respect to disease
- ◆ You can alter your “environmental DNA” by boosting your Mitochondria



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- ◆ Some people are born with mitochondrial disease
- ◆ Today many suffer from mitochondrial dysfunction because of:
poor diets, insufficient exercise and most importantly exposure to wireless and other forms of radiation in our environment (microwaves, cell phones, portable phones, computers, smart meters, laptops, cell phones towers nearby)
- ◆ The newly proposed 5G connections will make matters worse. Research has proven that environmental radiation (electro smog) more than anything directly affects our mitochondrial DNA causing mitochondrial dysfunction.

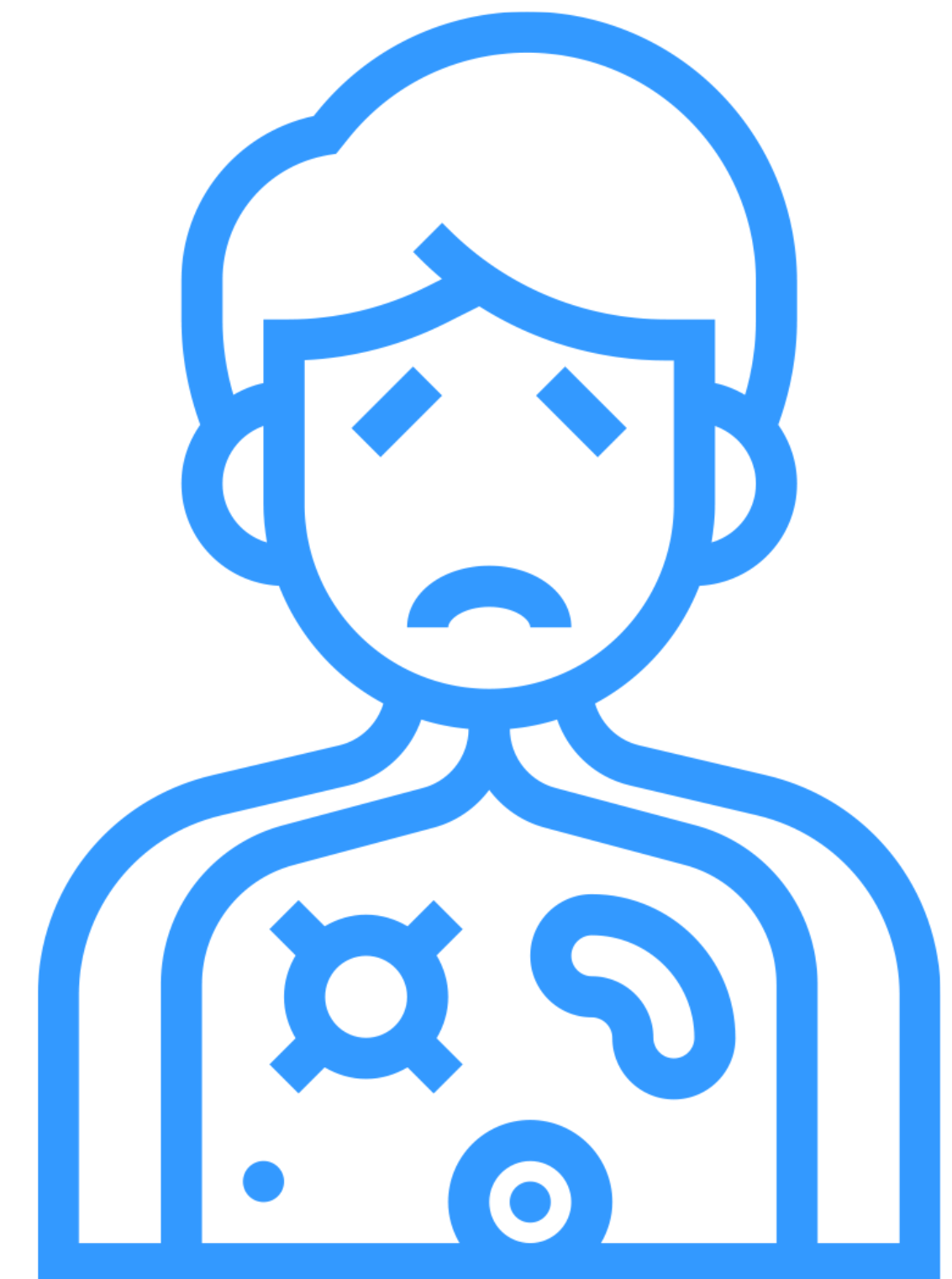


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Symptoms of mitochondrial disease / dysfunction:

- ◆ Poor growth, muscle weakness and poor muscle tone
- ◆ Vision and/or hearing problems
- ◆ Learning disabilities, delays in development, mental retardation
- ◆ Heart, liver or kidney diseases
- ◆ Gastrointestinal disorders, diarrhea or constipation and reflux
- ◆ Diabetes & increased risk of infection
- ◆ Neurological problems such as seizures, migraines and strokes
- ◆ Thyroid problems & respiratory (breathing) problems
- ◆ Lack of energy & poor sleep
- ◆ Cancer & ALS
- ◆ Dementia & more

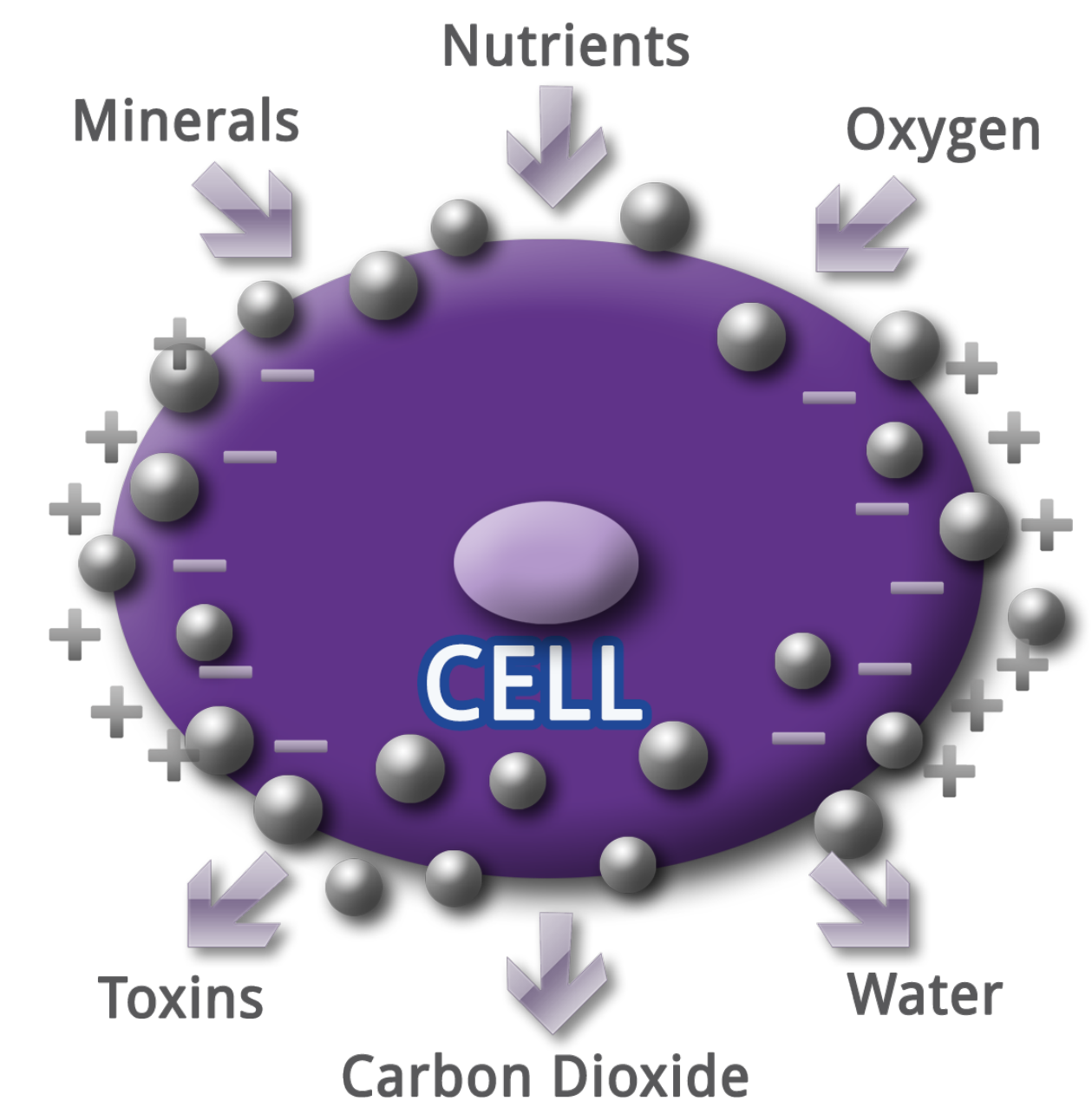


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Ion Transfer

- ◆ Every cell produces an electromagnetic field created by ion transfer via cell membrane
- ◆ Positive & negative ions (sodium and potassium) when passing through membrane channels, create friction that creates an electrical charge (cellular voltage)
- ◆ This voltage and ATP are vital to cellular health
- ◆ When the electrical potential of a cell drops, cell function is impaired
- ◆ Every condition or ailment is a consequence of impaired cell function
- ◆ Leading to: low performance, fatigue, lack of energy and chronic condition



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- ◆ It is estimated that 85% of modern diseases have to do with mitochondrial dysfunctions, not genetics
- ◆ Poorly functioning Mitochondria mean that you'll be diseased

Dr. Gary Ryan, known as “The Energy Doctor”: *Based on research that was done at Yale, it is apparent that just about any pathology in the body is preceded by a drop in cell charge. Now we have technology that will reach down to the level of a cell that has lost charge and, due to the high intensity of the pulse, bring that pulse back to normal or a more normal situation, which allows it to replicate and produce a more normal cell.*

In essence: all health is cell health and always has been



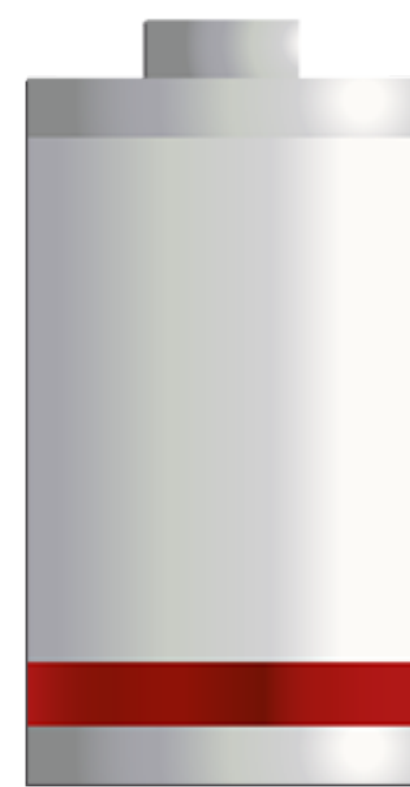
Dr. Gary Ryan

Mitochondrial Dysfunction – a new disease?

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How can we ensure cell health?

You can “charge” your cells every day with PEMF technology using a low frequency device (with a triple saw tooth waveform) that matches the biological window of human cell frequencies (0.5 – 30 Hz).



BELOW 20 MV



BELOW 50 MV



BELOW 60 MV



70 MV TO 100 MV

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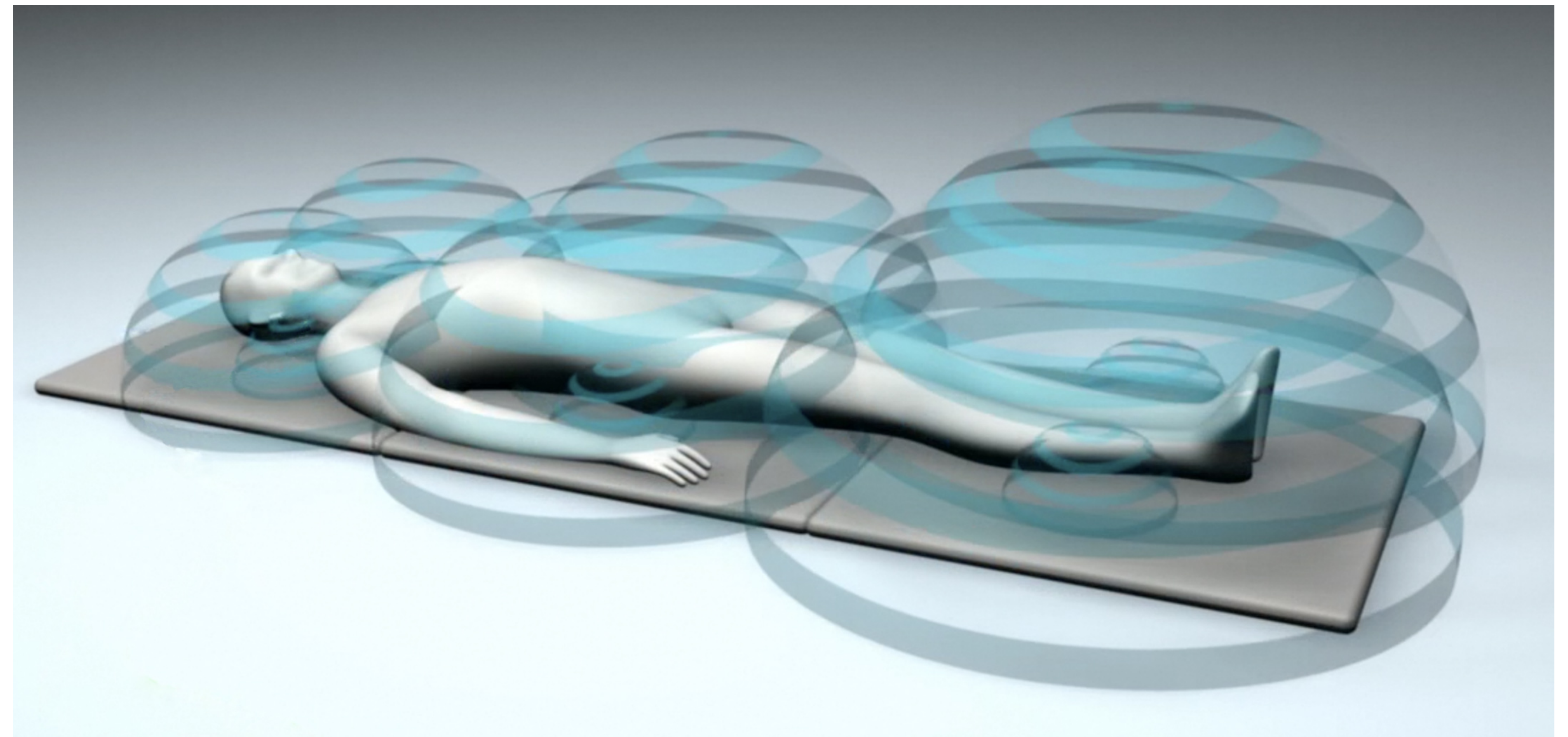
- ◆ Computer generated packages of time-varying electromagnetic impulses are delivered to the body and designed to target the biological window for maximum health benefits (cell charge is optimized)
- ◆ This creates resonance: cell reaction can only take place if the receptor is excited
- ◆ There are no receptors for incorrect or unknown frequencies (frequencies outside the biological window)
- ◆ Cells and receptors begin to oscillate at resonating frequencies
- ◆ The evolved saw-tooth (iMRS prime) is a combination of triangular and rectangular waves using even and odd-numbered frequencies and sharp rise and fall times

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- ◆ 2 Hz Nerve regeneration
- ◆ 1 Hz - 5 Hz Rejuvenation
- ◆ 7 Hz Bone Growth
- ◆ 0.5 Hz-15 Hz Brain Cells
- ◆ 10 Hz Ligaments
- ◆ 15 Hz - 20 Hz Fibroblast
- ◆ 25 Hz Nerve Regrowth
- ◆ 20 Hz Blood Circulation & Oxygenation
- ◆ 25 Hz-30 Hz Metabolic Stimulation



Reference: www.researchgate.net (subscribe)

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How can we ensure cell health?

- ◆ Magnetic resonance stimulation uses weak pulsating electromagnetic fields to activate processes in the body by improving cell membrane potential through increased ion transfer. PEMF full body exposure stimulates every level of the body and PEMF applicators stimulate cells at the site of injury or disease
- ◆ We live in a symptom-oriented health care system that relies heavily on drugs and invasive procedures. Yet people as a whole are getting sicker and the health care \$ dwindle
- ◆ PEMF modalities: simple, safe, less costly & address pathologies not symptoms

“In both aging and degenerative conditions, cells lose their membrane charge.

PEMF has the ability to recharge cell membrane potential”

Baker, 1983

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How can we ensure cell health - relevant PEMF studies

- ◆ [1] <https://link.springer.com/article/10.1007/s00420-003-0446-5>
- ◆ [2] <https://www.sciencedirect.com/science/article/pii/S0167488904002228>
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How can we ensure cell health - relevant PEMF studies

- ◆ [12] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2670735/>
- ◆ [13] <https://www.nature.com/articles/sc19762>
- ◆ [14] <http://europepmc.org/article/med/7094473>
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