

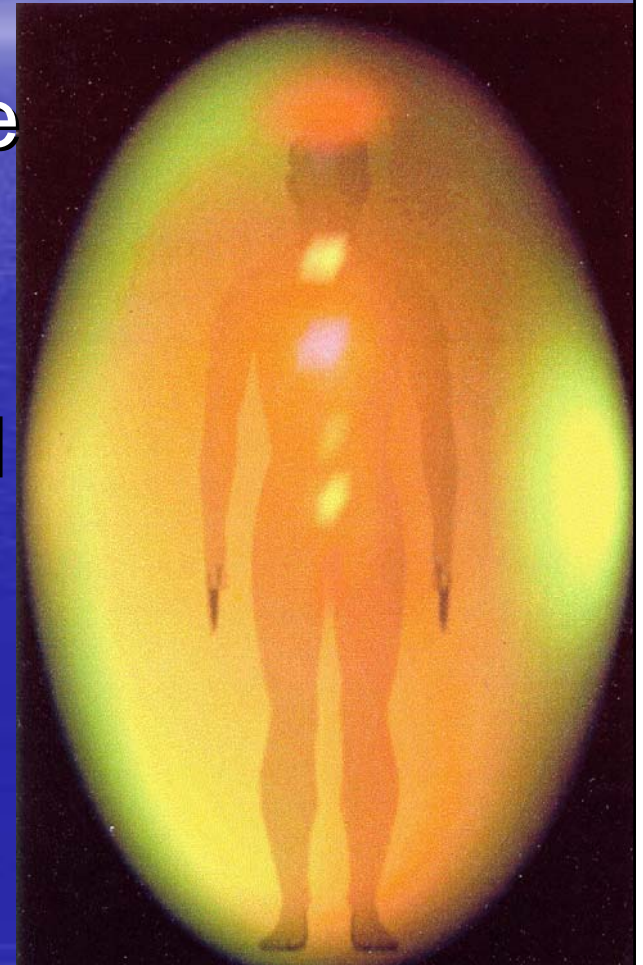
Tapping the Body's Healing Potential

**Senergy Medical Group &
Jerry Tennant, MD
Welcome You!**

Energetic Medicine

Jerry Tennant, MD

- If you want a copy of this presentation, give us your name and address and we will mail it to you.
- This presentation was designed to be read, so I will often skip past slides that have text because I am telling you what they say. Don't panic if you can't read them all.



Jerry Tennant, MD

Curriculum Vitae

- I rarely talk about my achievements, but it seems prudent here to show that I am not someone who has a new agenda that is other than the advancement of health care.
- I have a long history of the advancement of traditional medicine in my field of ophthalmology.

Jerry Tennant, MD

Curriculum Vitae

- Graduated as Valedictorian of High School at age 16 (completed junior and senior years simultaneously).
- Completed college (except for 3 hours) in 2 ½ years). Phi Kappa Phi; Pre-med of the Year Award.
- Attended University of Houston School of Optometry before Medical School
- Accepted into Southwestern Medical school at age 19; graduated in top ten at age 23.

Jerry Tennant, MD

Curriculum Vitae

- Residency in Ophthalmology at Harvard Medical School / Mass Eye and Ear and Southwestern Medical School / Parkland Hospital 1964-1968.
- Board Certified in Ophthalmology and Ophthalmic Plastic Surgery.
- Director of Ophthalmic Plastic Surgery / Parkland Hospital.
- Founder / Director of the Dallas Eye Institute

Jerry Tennant, MD

Curriculum Vitae

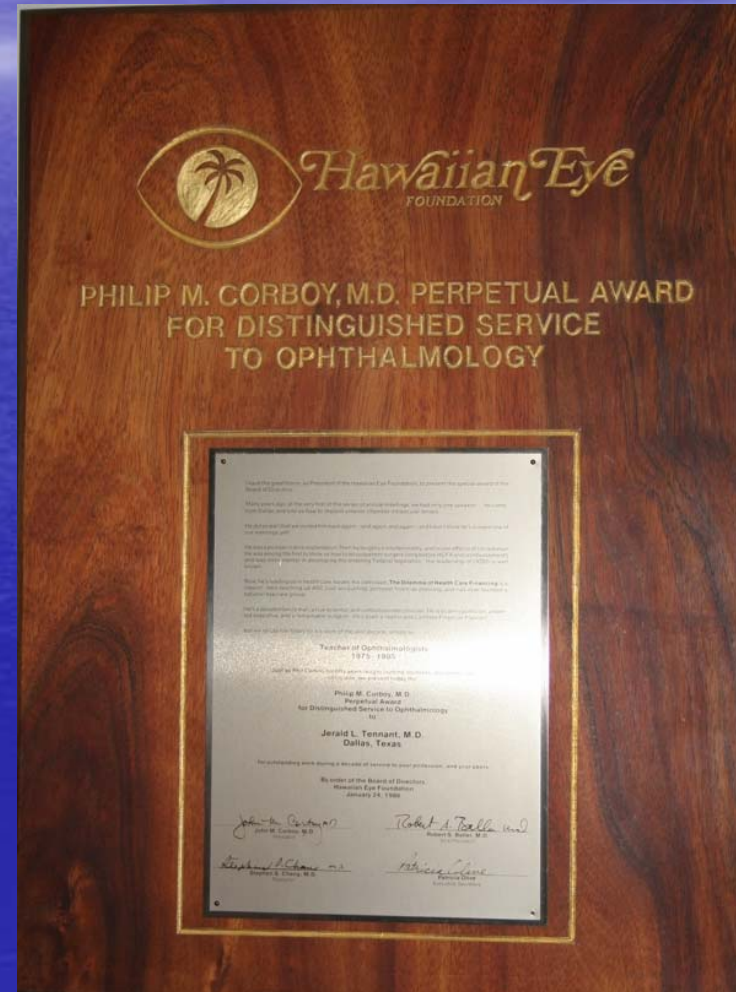
- Holder of patents for medical devices including intraocular lenses, surgical instruments, etc.
- Co-founder of Outpatient Ophthalmic Surgical Society; taught most of the ophthalmologists how to do outpatient eye surgery in 1980's.
- One of first surgeons in US to place intraocular lenses into eyes after cataract surgery; taught techniques around the world.



Jerry Tennant, MD

Curriculum Vitae

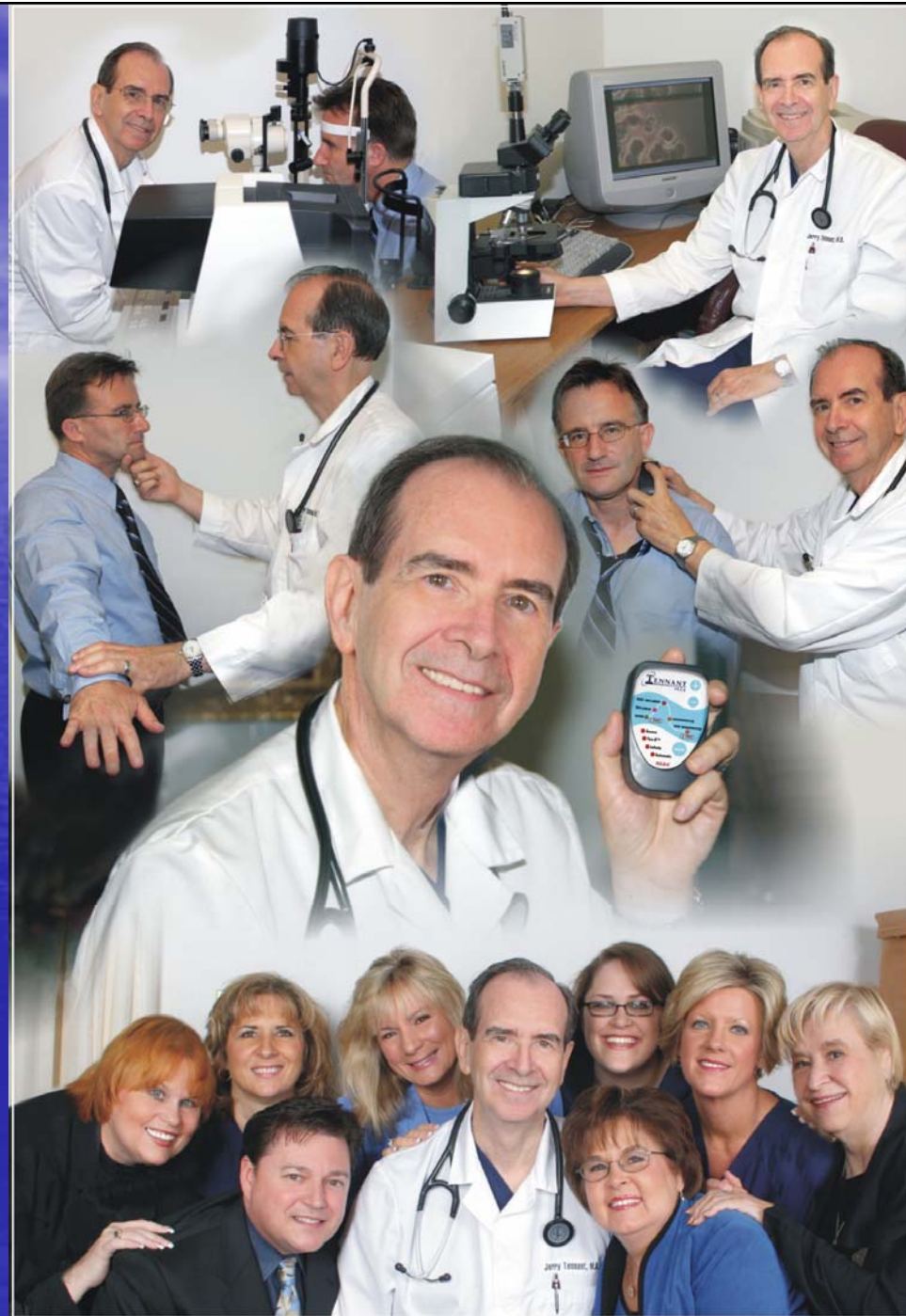
- One of few in the world to receive the Corboy Award for Advancements in Ophthalmology.
- Received the American Academy of Ophthalmology Award for contributions.
- Author of books about cataract surgery and life-style management.



Jerry Tennant, MD

Curriculum Vitae

- Providing Energetic Medicine in a private clinic setting.
- Information provided by Dr. Tennant in this educational presentation is his personal view and **NOT** the claims of the manufacturers nor distributors of the devices.
- Some recommendations have not been evaluated by the FDA.
- Some devices are for investigational use only.



Senergy Medical Group, Inc.

- Dr. Jerry Tennant is not an officer or owner of the US distributor of the Tennant Biomodulator™.
- The distributor is:
 - Senergy Medical Group, Inc.**
 - 5601 N. MacArthur Blvd., Suite 226
 - Irving, TX 75038
 - 972-580-0545



Collins and Tennant, LLC: Jerry Tennant and Max Collins are creators of the Collins Light.

Disclosure of Interests

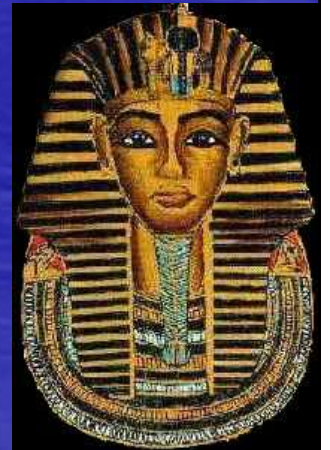
- Jerry Tennant is owner of the patents-pending for the Tennant Biomodulator™.
- Jerry Tennant is owner of the patents-pending for the use of certain electromagnetic energies in treatment of macular degeneration.



History of Energetic Medicine

History of Energetic Medicine

- Oldest known medical document is Yellow Emperor's Book of Internal Medicine 2000 BC. It discussed Qi and Yang/Yin with **acupuncture** and moxibustion.
- Egyptian Kahun Papyrus 2000 BC discusses herbal remedies and the use of the **magnetic** lodestone.



History of Energetic Medicine



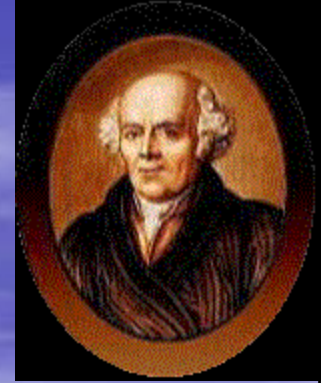
Stone carvings from the Egyptian Fifth Dynasty in 2500 BC depict an electric fish being used to treat pain.

- Hindu Vedas 2000 BC discussed **magnetic** lodestone.
- **Electric** eel (600 volts) used by Egyptians for medicinal purposes.



Homeopathy

Samuel Hahnemann, MD

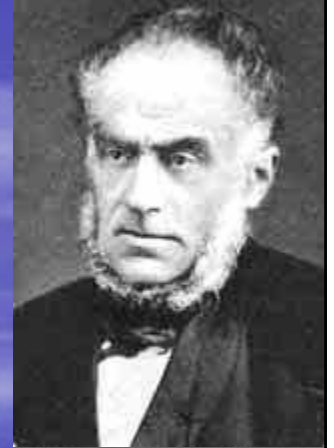


- Hahnemann's *Essay on a New Principle* in 1796 was the birth of Homeopathy and Heilkunst (art of restoring health; remediation).
- **Law of Similars:** cure can only come from the use of medicine that produced a similar (artificial) disease in a healthy person.
- **Law of Opposites:** Use of medicine that produces an opposite effect can only suppress symptoms, e.g., analgesic makes you not feel your headache, but it doesn't cure it = most current medications.

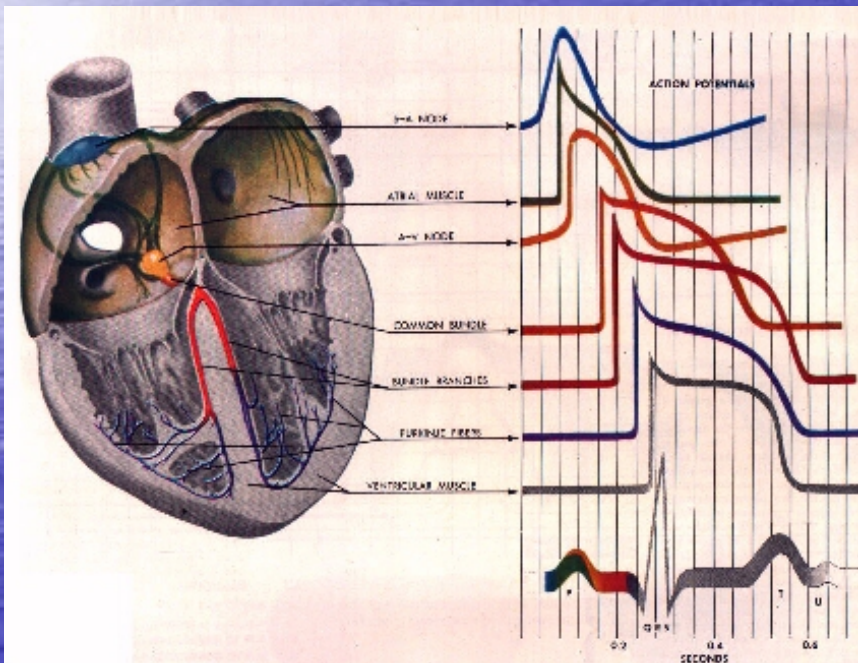
Summary of Homeopathic Principles of Hahnemann

- **Disease is Dynamic:** symptoms of a disease can be removed by diet, rest, etc. but disease can only be removed by a medicine.
- **Law of Cure is Law of Similars:** You must give a medicine that will produce in a healthy person a disease similar to the patient. (Give frequency that will cancel disease = same as cause).

History of Energetic Medicine



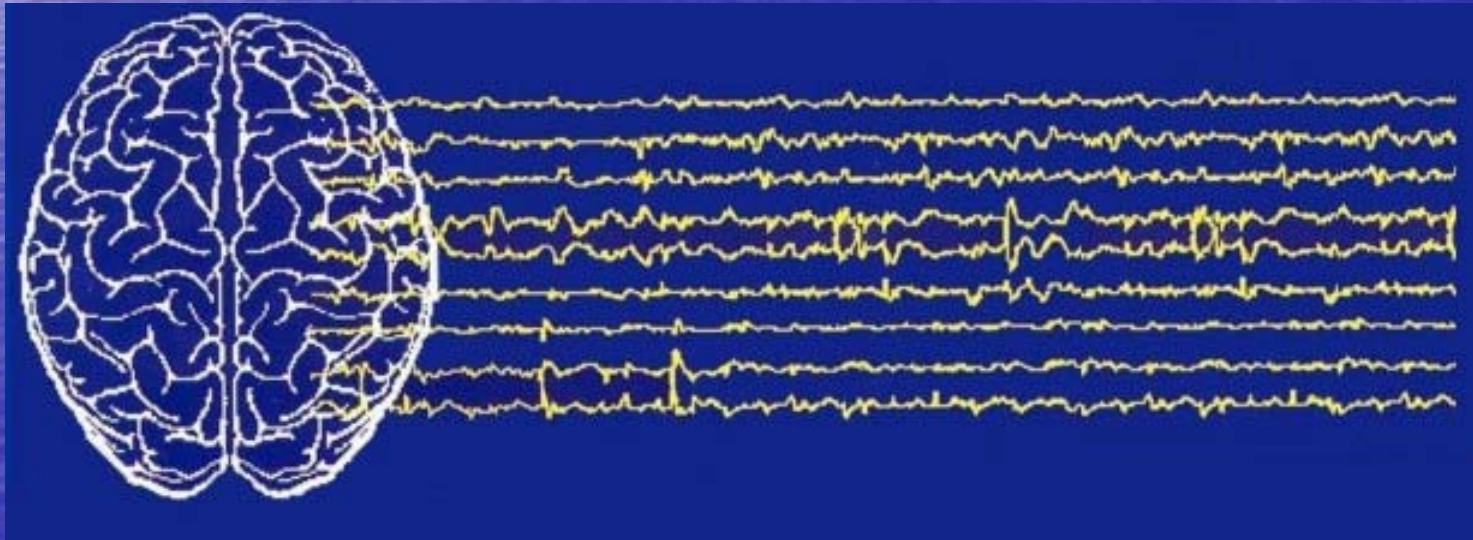
1842 - Carlo Matteucci, Professor of Physics at the University of Pisa, shows that an **electric current** accompanies each heart beat. This was the beginning of the ECG.



<http://med.mc.ntu.edu.tw/~chenhs/cvd/ecg.jpg>

History of Energetic Medicine

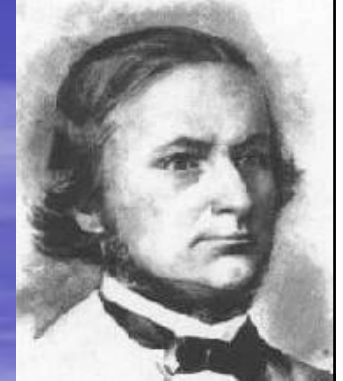
1875 - Richard Caton, a Liverpool physician and medical school lecturer, discovered **electrical brain signals** by probing directly on the surface of exposed brains of animals.



<http://www.mtapi.hu/eeg.jpg>

Gustav Robert Kirchhoff

1824-1887



- In collaboration with Robert Bunsen (1811-1899), Kirchhoff founded the science of **spectroscopy**. Kirchhoff and Bunsen began by effectively inventing the *spectroscope*, a prism-based device that separated light in its primary chromatic components, i.e., its *spectrum*.
- They began studying the “**spectral signature**” of various chemical elements in gaseous form.

Gustav Robert Kirchhoff

1824-1887

- Using the spectroscope, Kirchhoff showed that **each element, when heated to incandescence, produced a characteristic pattern of emission lines.**
- This led to the identification of cesium in 1860 (named in Latin for the sky blue color of its emission lines), and rubidium in 1861 (named in Latin for the red color of its emission lines).

Gustav Robert Kirchhoff

1824-1887

- The key observation made by Kirchhoff and Bunsen was that the **spectral lines emitted** by a gas occurred at the same **wavelength** as the *absorption* lines observed when incandescent light (provided by Bunsen's now famous gas burner) **shone through the same gas** heated at the same temperature.

Gustav Robert Kirchhoff

1824-1887

- Kirchhoff took the gigantic leap of then identifying the dark spectral lines observed in the solar spectrum, known since Joseph Fraunhofer's earlier work, with the emission lines observed by various heated chemical substances.

Gustav Robert Kirchhoff

1824-1887

- In summary, Kirchhoff and Bunsen showed that atoms, when heated to incandescence, emit characteristic frequencies that allow one to identify each atom with absolute certainty.
- When the exact frequencies of light that an atom emits are presented to the atom in phase, the atom absorbs the energy and its energy is amplified.

Human Body Composition

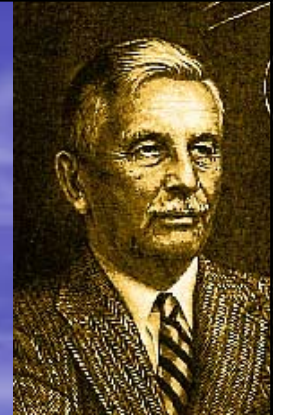
| Element | Percentage |
|--------------|------------|
| Oxygen | 65% |
| Carbon | 18% |
| Hydrogen | 10% |
| Nitrogen | 3% |
| Total | 96% |

Ninety-six percent of the human body is made up of oxygen, carbon, hydrogen and nitrogen.

Electromagnetics and the Human Body

- When exposed to the exact frequencies of these atoms, the body absorbs that energy (voltage) to allow these atoms to function normally.

History of Energetic Medicine



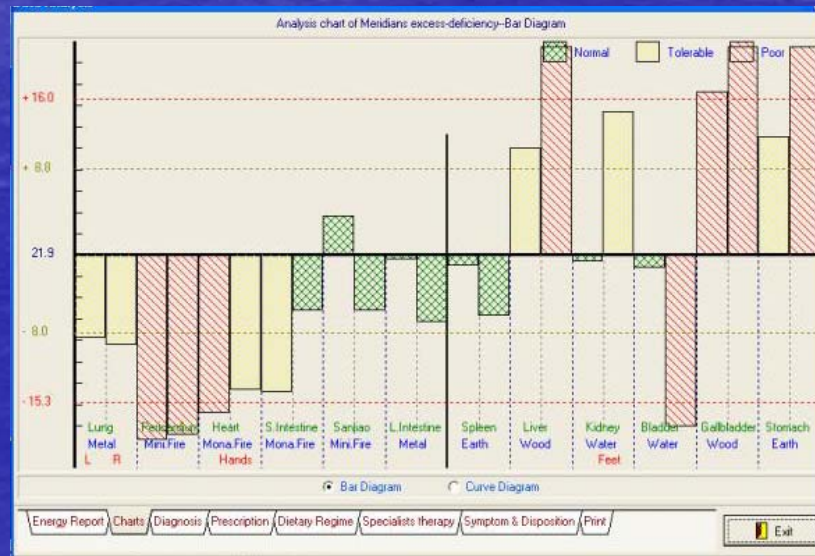
Harold Saxton Burr, Ph.D., was E. K. Hunt Professor Emeritus, Anatomy at Yale University School of Medicine. From 1916 to the late 1950's, he published, either alone or with others, more than ninety-three scientific papers. He showed that the exact time of **ovulation** could be determined by measuring **voltage** of the cervix.

History of Energetic Medicine

In 1951, **Dr. Yoshio Nakatani** presented his research and theory of RYODORAKU Acupuncture. He was the first to use electronic measurements of the acupuncture points.

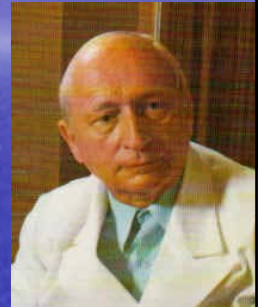
**Above line
= inflamed**

**Below line =
degenerative**

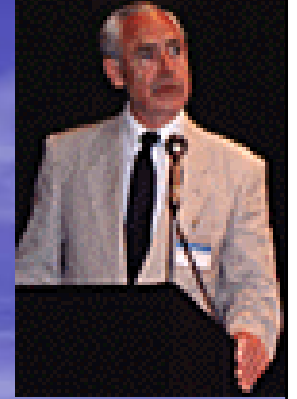


History of Energetic Medicine

- 1952 **Reinhold Voll, MD** expanded on work of Nakatani and identified specific spots on skin that measured specific parts of organs.
- 1958, **Malcolm Ing, MD** demonstrates voltage differential in legs in patients with herniated disks.

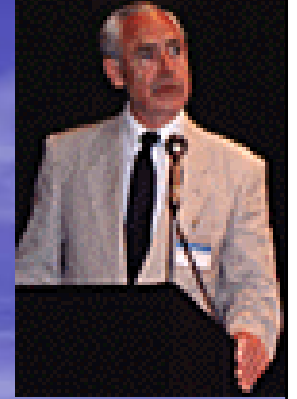


History of Energetic Medicine



- Bjorn Nordenstrom, MD invented the deep biopsy needles used to biopsy lung tumors. Making them to also serve as electrodes, he measured the electronic characteristics of tumors.
- In 1983, Bjorn E. W. Nordenstrom, MD, Professor of Diagnostic Radiology, and Chairman of the Nobel Committee, Stockholm, Sweden, published *Biologically Closed Electric Circuits.*

Bjorn Nordenstrom, MD



- The body uses all forms of electron transfer to move voltage through the body:
 - Conductive = via fibrous tissue
 - Ionic = via ions in fluids
 - Semi-conductor = cells are semi-conductors
- Nordenstrom showed that chronic disease is always associated with a loss of voltage and a reversal of polarity. He also showed that cancer is always very electronegative.

Professor Ross Ayde

- Neurons release calcium when exposed to 16 Hz.
- (Calcium releases neurochemicals; magnesium returns them to the neuron.)

Magnetite (Iron Oxide)



- R.P. Blakemore found bacteria that always moved across the Petri dish to the North side of the dish every time the dish is rotated.
- These bacteria contain a substance called **magnetite**.
- All animals are found to have magnetite in their brains to assist with orientation.

[1] R. P. Blakemore, Science 190, (1975) 377.

Fritz Albert Popp

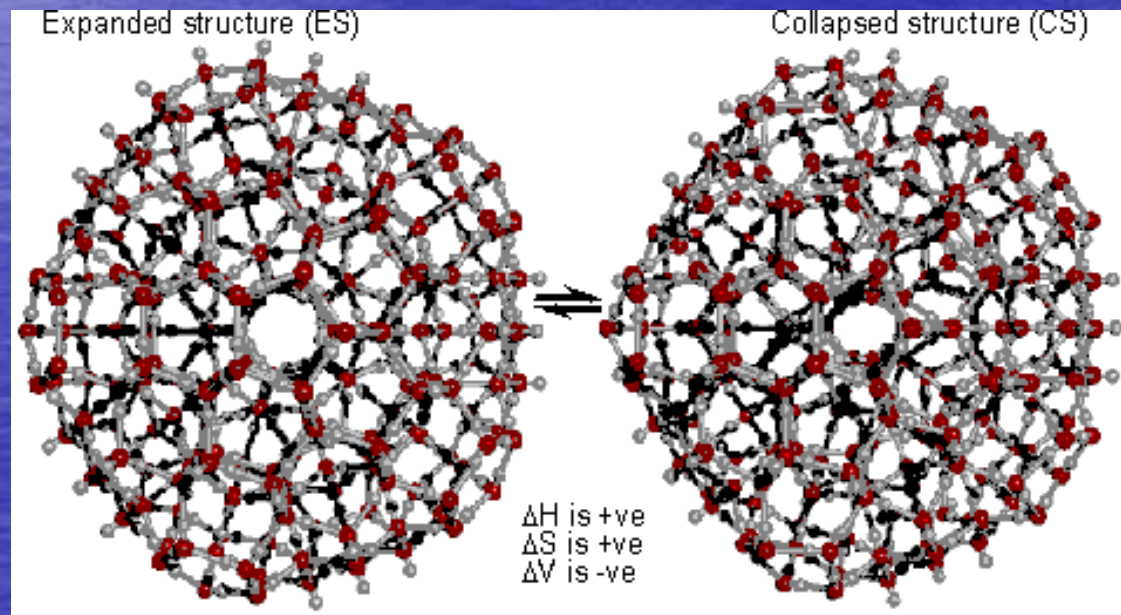
Biophotons



- Popp and Ruth developed a device that will measure photons of light one photon at a time.
- They have shown that the body stores light and releases it.
- Light is stored in the body in the DNA of cells.

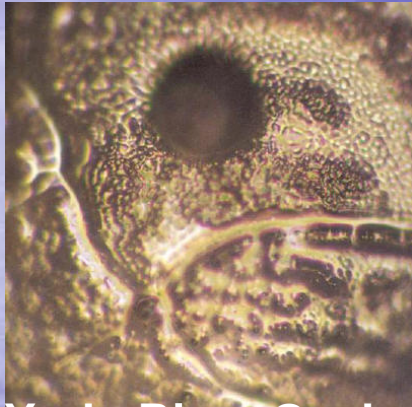
Water

Water never exists in the real world as H_2O . It is always in crystals. It often exists as an icosahedron (a polyhedron having 20 faces.)

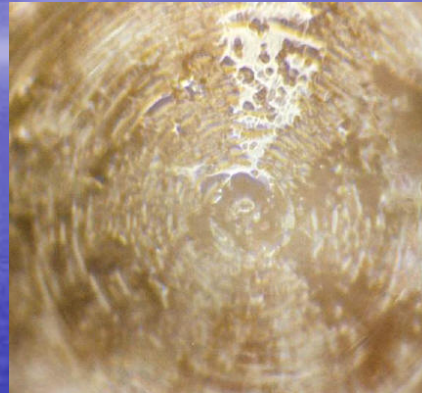


Water and Energy

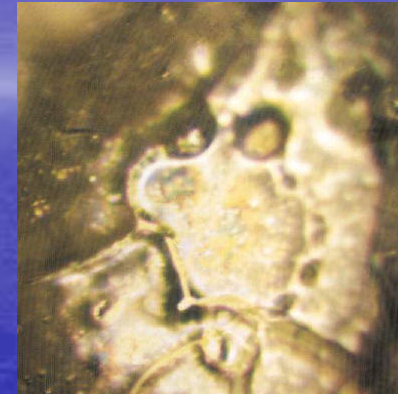
Dr. Masaru Emoto



Yodo River Osaka



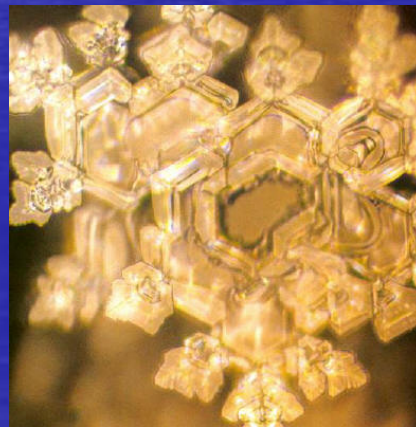
Heavy Metal Music



Fujiwara Dam
Before Prayer



Spring Water



Playing Bach



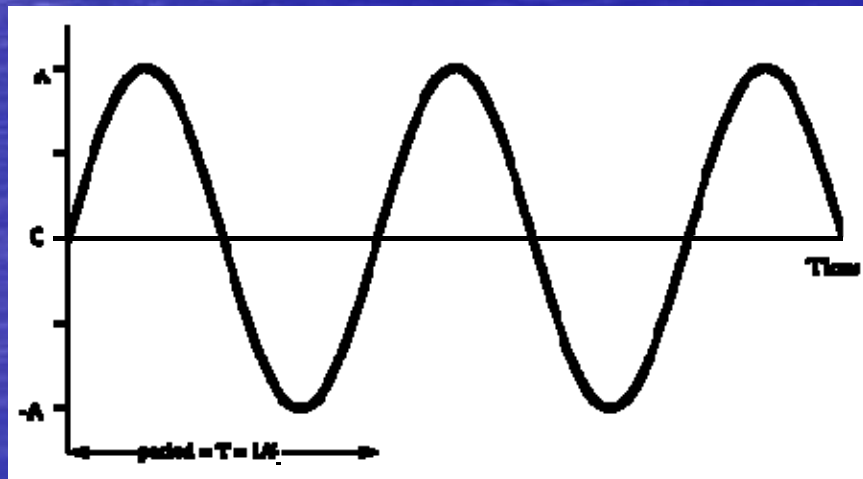
Fujiwara Dam
After Prayer

Plants vs. People

- Plants produce sugar from carbon dioxide, water and light.
- Humans cannot do this - they are dependent upon plants and other animals for food.
- Humans, like plants, require light to function.

Transcutaneous Electrical Nerve Stimulation (TENS) 1965

Present day TENS began after the landmark paper by Melzack and Wall 1965, entitled "*Pain Mechanism: A New Theory.*" An enormous amount of scientific research followed, resulting in the therapy used today.



TENS Frequency Studies

LS Chesterton

- *Effects of TENS Frequency, Intensity and Stimulation Site Parameter Manipulation on Pressure Pain Thresholds in Healthy Human Subjects.* Chesterton LS, Foster NE, Wright CC, Baxter GD, Barlas Department of Physiotherapy Studies, Keele University, Staffordshire ST5 5BG, UK. l.s.chesterton@keele.ac.uk
- This study evaluated the effects of varying frequency, intensity and stimulation site, of transcutaneous electrical nerve stimulation (TENS)
 - Two TENS frequencies (110 or 4 Hz); and
 - Two intensities (strong, but comfortable or highest tolerable) at a fixed pulse duration (200 microseconds) were applied at three sites.

TENS Frequency Studies

LS Chesterton

- Pressure pain thresholds (PPT) were measured using a pressure algometer – every 10 minutes, during stimulation and for a further 30 minutes.
- The high frequency, high intensity segmental, and combined stimulation groups, showed rapid onset and significant hypoalgesic effects. This effect was sustained for 20 minutes post-stimulation in the high frequency segmental group.
- All other TENS intervention groups showed hypolagesic responses similar to the sham TENS group.

Self Controlled Energetic Neuro Adaptive Regulator (SCENAR)

Alexander Karasev, Russia 1973

- **How did this come about?**
 - “It all began when the whole of our family got food poisoning. It was an awful time and I lost my sister. But one thing I realized was that conventional medicine with all those modern pills and potions did not help. I had, in fact, studied reflexology and acupuncture for many years but these didn’t seem to work either, so I realized that there was a need for something else.”
 - “Of course, we weren’t the first who thought about sending electronic signals to the brain, but we managed to refine the technique – to make the signal similar to that carried in a body’s nerve tissue after distortion caused by the skin, fat and suchlike.”

Self Controlled Energetic Neuro Adaptive Regulator (SCENAR) Alexander Karasev, Russia 1973

- **Who was involved? Where were you based?**
 - “I worked for many years on the medical program at the Cosmonaut Training Centre and they were doing something similar there. But I’d started working on the device even before that in my home town, Taganrog.”
 - “I only demonstrated it to the space program scientists once I’d made the first operating version and had achieved successful results.”

SCENAR 1973



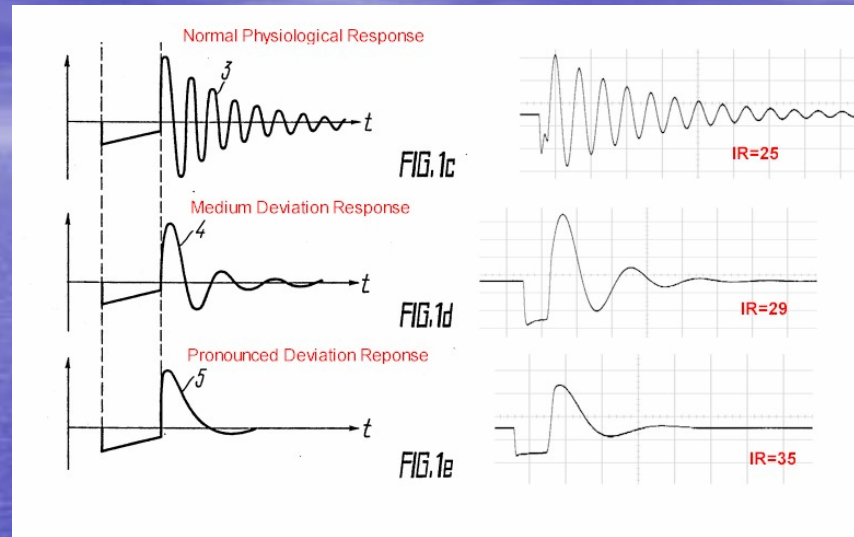
*Jerry Tennant,
MD*



*Zulia
Valeyeva-
Frost, MD*

- SCENAR technology was brought to the west primarily through the efforts of Zulia Valeyeva-Frost, MD (London) and Jerry Tennant, MD (Dallas).
- SCENAR is a cybernetic biofeedback technique (doesn't require the intervention of the mind like traditional biofeedback).

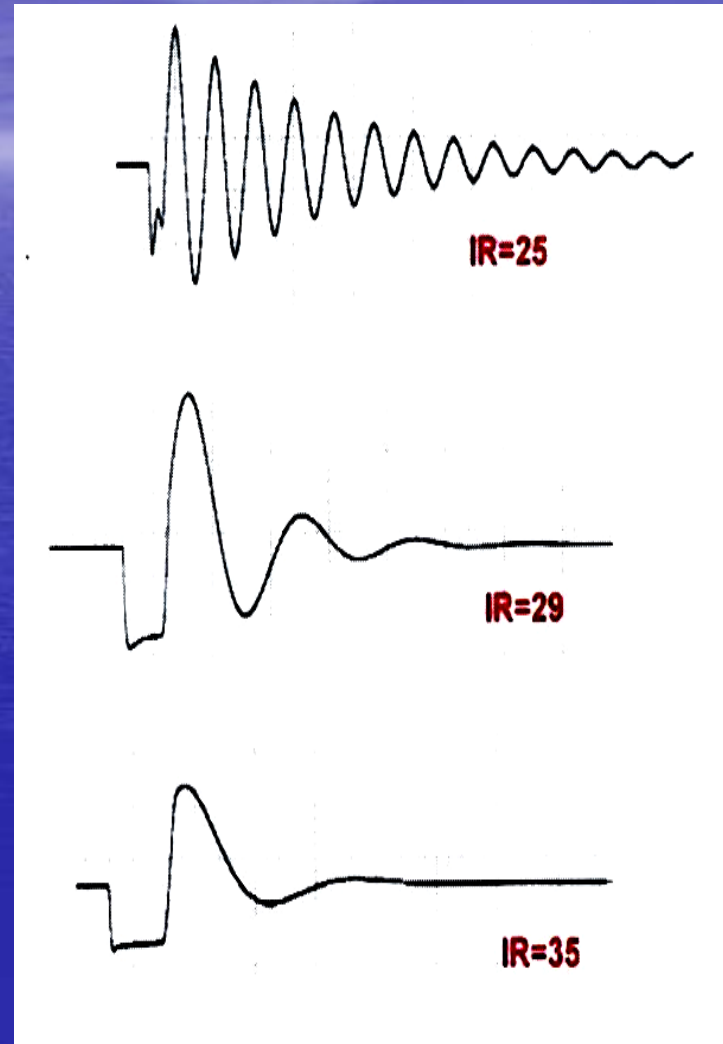
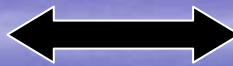
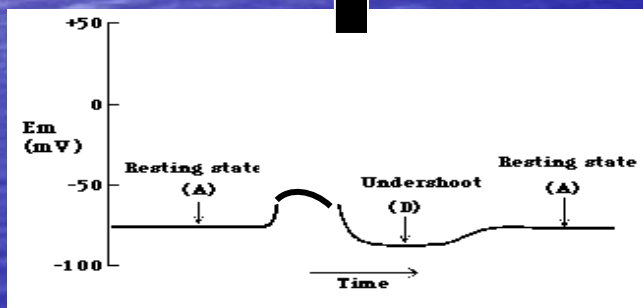
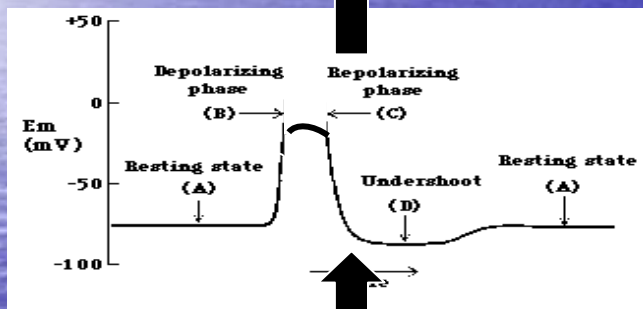
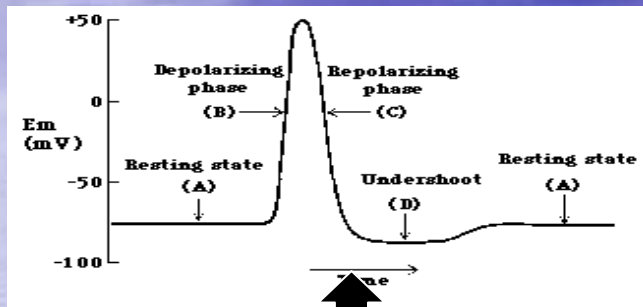
SCENAR Waveforms



Cybernetic Biofeedback vs. TENS

- TENS blocks pain signals so the brain doesn't know that the tissue is still hurting and degenerating.
- Cybernetic Biofeedback corrects the electronics (voltage and polarity) of the tissue so that it HEALS. Correction of symptoms occurs because the tissue heals.

Modulation Of Cellular (Organ) Potentials Back To Normal With Biofeedback



Biomodulation™ 2004



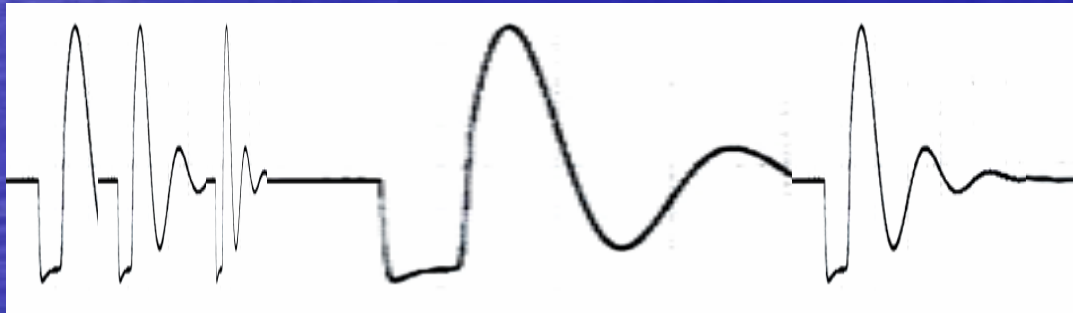
*Jerry Tennant,
MD*

- In 2004, Jerry Tennant, MD introduced Biomodulation™.
- Biomodulation™ is a significant advance in cybernetic biofeedback, using patented frequencies not possible to create with older SCENAR devices and circuitry.



Tennant Biomodulator™

- **ASSESS:** This mode is capable of measuring the impedance/capacitance to identify locations for therapy.
- **Tennant TEN-8™:** This intense pattern is very useful for focused problems of local muscle spasm and similar problems.
- **Tennant INFINITY™:** This patent-pending frequency set quickly restores voltage and polarity to tissue.
- **Tennant AUTO-INFINITY™:** Automatically assesses and treats.



Infinity Frequency Set Creates an Almost Infinite Pattern of Frequencies

DNA is a Resonant Circuit

DNA is an organic superconductor at normal body temperatures!

SUPERCONDUCTOR:

An element, inter-metallic alloy, or compound that will conduct electricity without resistance below a certain temperature.

Resistance is undesirable because it produces losses in the energy flowing through the material.

Once set in motion, electrical current will flow forever in a closed loop of superconducting material - making it the closest thing to perpetual motion in nature. Scientists refer to superconductivity as a "macroscopic quantum phenomenon".

Data Storage

- Superconducting computer chips store light and data.
- Every cell in our body can store **3 gigabits** of electronic information in the DNA of the cell.
- The natural frequency of each DNA is 150 megahertz (150,000,000 Hz).
- This frequency of human “radar” is the same as used in commercial radar and microwave communications.

DNA Harmonics



DNA stores harmonics of 150 MHz as well. In the visible light band, that is blue = the same color as the sky and ocean.

Pjotr Garjajev

Russian Academy of Science

- Only 10% of DNA is genetic code for the production of proteins. The other 90% has been called “junk DNA” by American geneticists.
- All languages (human and computer) have a basic grammatical syntax.
- All DNA follows these basic grammatical syntax rules.
- The analogy between the structure of the DNA and the human language is most pronounced in the “junk DNA” portion of the molecule.

Pjotr Garjajev

Russian Academy of Science

- The “junk DNA” is used by the cell to store data and communicate with other cells and organisms.
- The well-known genetic code of the Human Genome Project is a code (blueprint) for protein synthesis and nothing more.
- Chromosomes work as solotonic (waves that store information) holographic computers communicating with laser radiation!

Our Cells Store Images and Data in Ways Similar to DVD Technology

- Now we begin to understand the importance of kind words and thought.
- Like Emoto's photos with water show that harsh words change the structure of water, so harsh words change the DNA data in our cells.
- The Russians have shown they can change the way cells behave with modulated lasers.

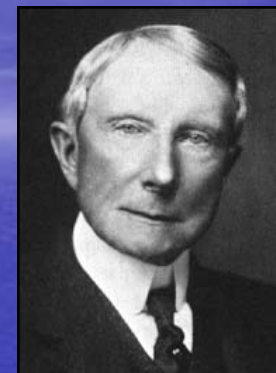


Flexner

Why Isn't Energetic Medicine Being Taught In Medical Schools?

In the early part of the 1900's, Energetic Medicine was popular in the US. There were ten homeopathic medical schools.

- In 1910, Abraham Flexner, working for Andrew Carnegie and John Rockefeller, published the **Flexner Report**. It was a protocol for medical education that allowed only for the teaching of pharmaceutical/surgery-based medicine.
- Carnegie and Rockefeller were major shareholders in pharmaceutical companies.



Rockefeller



Carnegie

Why Isn't Energetic Medicine Being Taught In Medical Schools?

- Congress accepted the **Flexner Report** and **prohibited funding** of any school that taught Energetic Medicine.
- November 1997, National Institutes of Health recommended that acupuncture should be a part of traditional medicine. This is the first time Energetic Medicine has been recognized since the Flexner Report of 1910.
- Now, more than 95 of the nation's 125 medical schools require some kind of complementary and alternative medicine coursework, according to the Association of American Medical Colleges.



Energetic Medicine Made Real

Jerry Tennant, MD

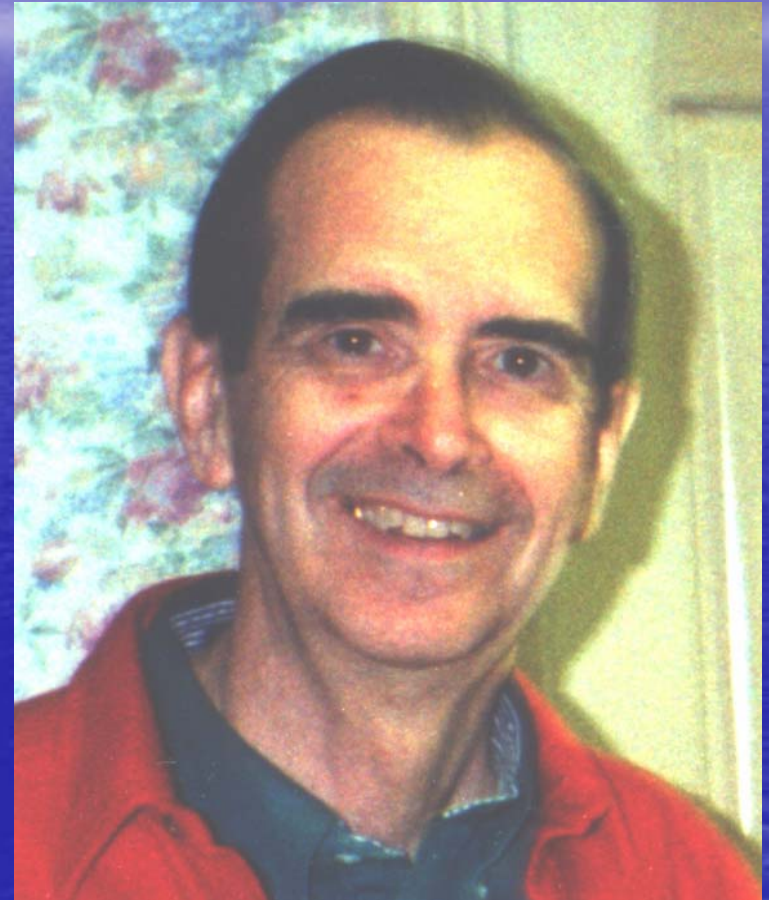
- Practiced ophthalmology from 1964-1995.
- Did much of the FDA study for VISX excimer laser = 1,000 cases in US and 2,000 abroad from 1991-1995.
- Developed neuropathies, encephalitis, low platelets (ITP = bleeds easily), and nervous system defects in 1994 = lasted for seven years.
- Had to quit work on November 30, 1995.

Sick for 7 Years Slept 16 Hours Per Day

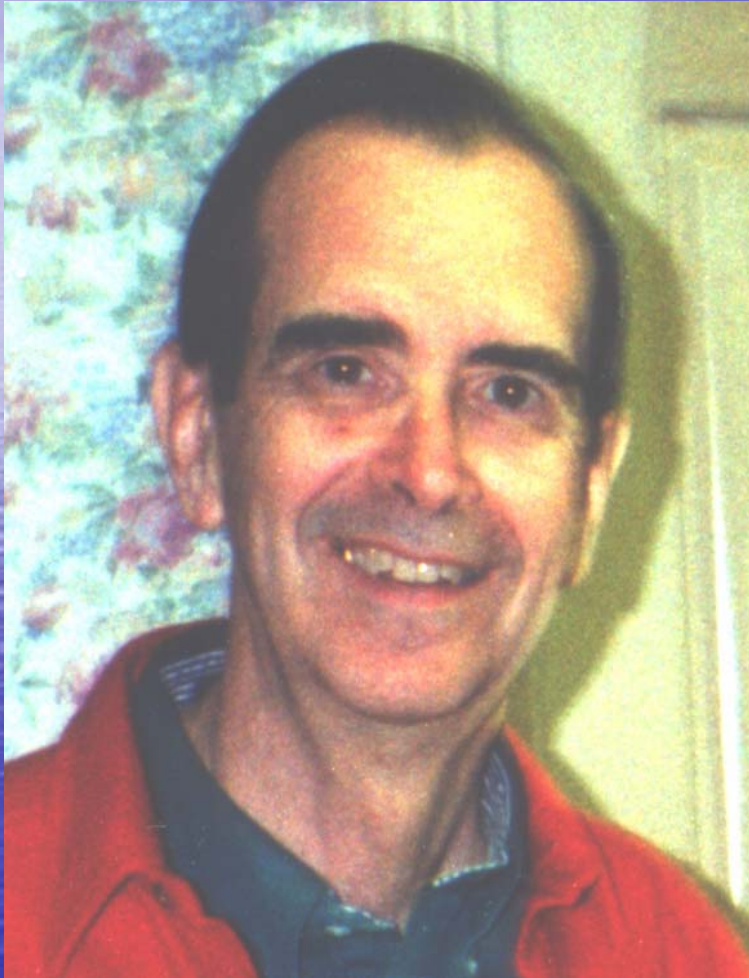


Dr. Tennant

- Feels he owes his life to energetic medicine.
- Told that he would develop Burkett's Lymphoma and that nothing could be done about the multiple viruses in his system.
- His blood profile suggested he would die in the summer of 1999.

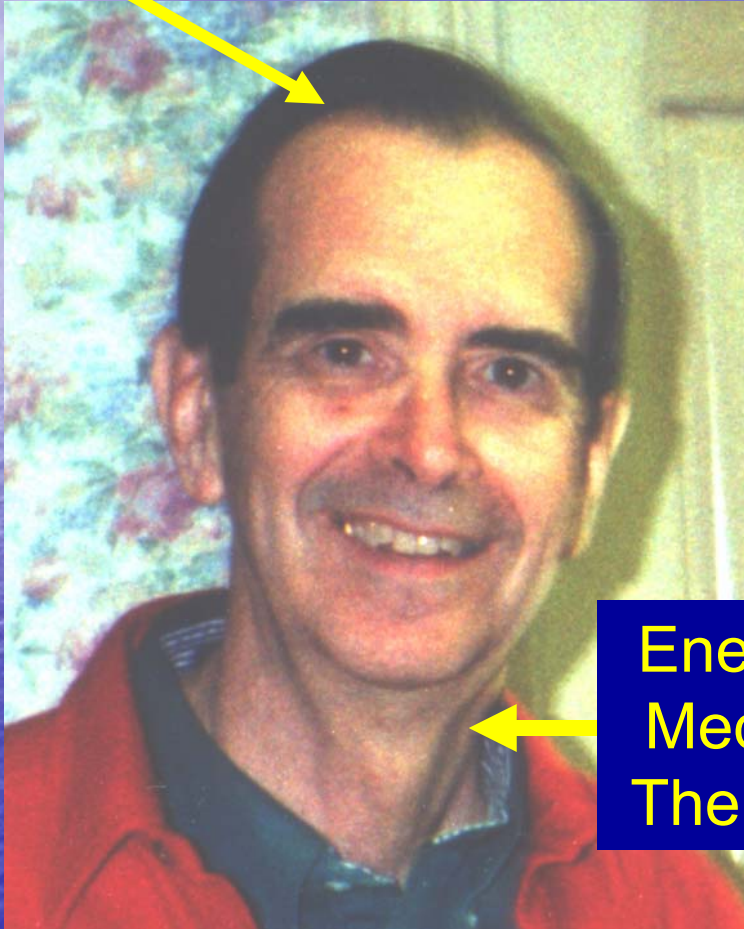


1999 to 2005



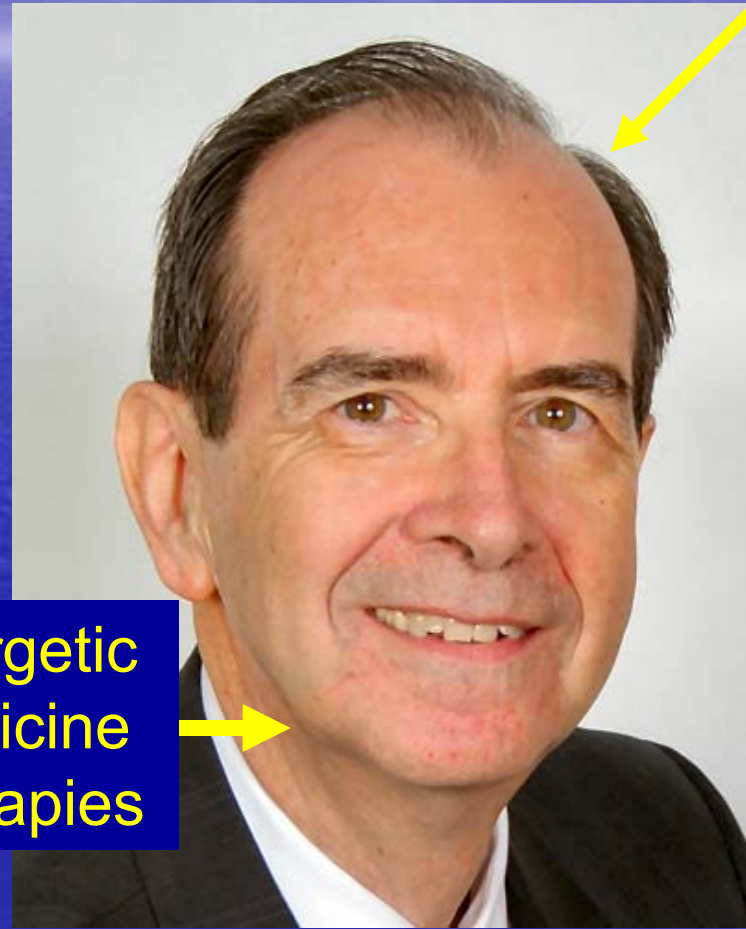
1999 to 2005

Hair Gray
(Dye)



Age 59

Hair Natural Color



Age 65

Energetic
Medicine
Therapies



My wife Marilyn sustained me through those difficult years. She has always been the “Wind Beneath My Wings!”

I Owe My Life to Energetic Medicine

- My health is improving since I discovered Energetic Medicine.
- I am here to teach you about the tools that saved my life when traditional medicine could not and how you can use them in your practice and life.

Applied Energetic Medicine

Goal is to Integrate Energetic Medicine with Traditional Medicine = Integrative Medicine

- The concepts will be as foreign to you as the first time you flew in an airplane or visited another country.
- I pioneered outpatient surgery, implant surgery, and excimer laser surgery - and told I was crazy in each of those endeavors.

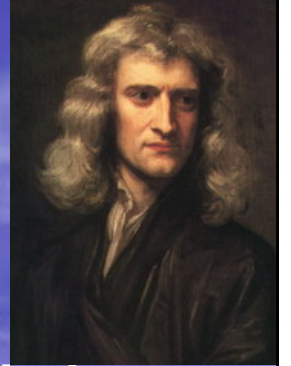
Goal is to Integrate Energetic Medicine with Traditional Medicine

- The concepts in American medicine and science have been controlled by the idea that “if you can’t measure it, it doesn’t exist” and anyone who claims it does is a quack or not a scientist.
- Now with Pentium-class computers, we can measure what was thought to be fairy-tales.

Energetic Medicine?

- The theory of traditional medicine is that the body is a complex system of chemical reactions and the best way to influence it is with other chemicals.
- Traditional medicine believes the body is Newtonian and follows the rules of Reductionism.

Isaac Newton (1642-1727)



- Newton's *Philosophiæ Naturalis Principia Mathematica*, demonstrated for the first time that celestial bodies follow the laws of dynamics and, formulating the law of universal gravitation, gave mathematical solutions to most of the problems concerning motion.
- Newton created the mathematics called calculus.

Isaac Newton (1642-1727)

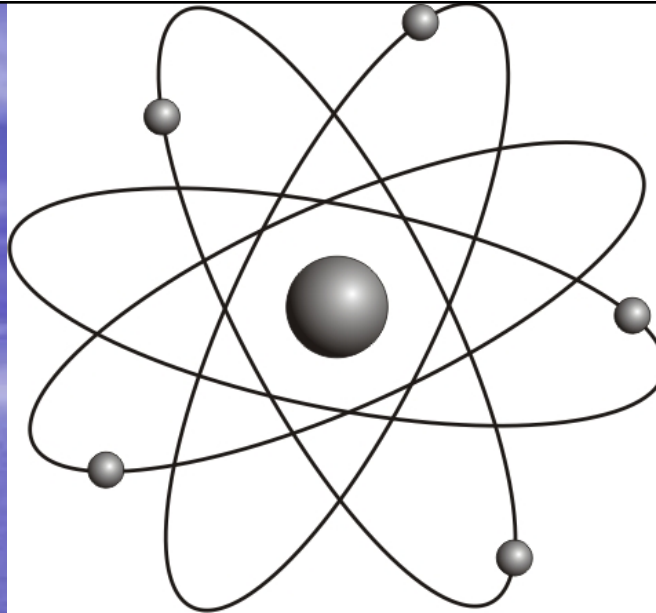
- The mathematics of **reductionism** is, at its most basic, the use of fractions which holds that dividing and multiplying are opposites. The statement $2(1/2)=1$ is the idea that dividing a system into two parts and then putting them back together restores the original system.
- This is valid for systems where only the total mass of a system matters, such as for weights, or for collections of small weakly interacting particles, like a pound of flour.
- **Newton's Laws work for large objects but don't work for atoms.**

Physics and Biology

- Classical physics *is* a flawed theory, but it is only dramatically flawed when dealing with the very small (atomic size, where quantum mechanics is used).

What is an Electron?

- In 1690, Christiaan Huygens theorized that light was composed of waves, while in 1704, Isaac Newton explained that light was made of tiny particles. Experiments supported each of their theories; however, neither a completely-particle theory nor a completely-wave theory could explain **all** of the phenomena associated with light! So scientists began to think of light as both a particle **and** a wave.
- In 1923, Louis de Broglie hypothesized that a material particle could also exhibit wavelike properties, and in 1927 it was shown (by Davisson and Germer) that electrons can indeed behave like waves.



- If the above picture is your idea of an atom, with electrons looping around the nucleus, you are about **70 years** out of date.
- It's time to open your eyes to the modern world of **quantum mechanics!**

<http://www-theory.chem.washington.edu/~trstedl/quantum/oldatom.gif>

Quantum Mechanics

- Einstein, Heisenberg, de Broglie, Bohr, and others created a physics to deal with atoms called Quantum mechanics. It is likely incorrect, but closer to reality than traditional physics.
- The theory of energetic medicine is that every cell in the body is programmed to do its job, and if it has enough voltage, it will do so. Thus, with enough voltage, the body can heal itself.
- One must find the “brown-outs” and restore the voltage.

My Introduction to Energetic Medicine

My friend and patient, Janet, was told by M.D. Anderson Cancer Clinic in Houston that nothing more could be done for her lymphoma.



My Introduction to Energetic Medicine

She went to Mexico. Her therapy wasn't working. She met a doctor in a restaurant who suggested he could help.

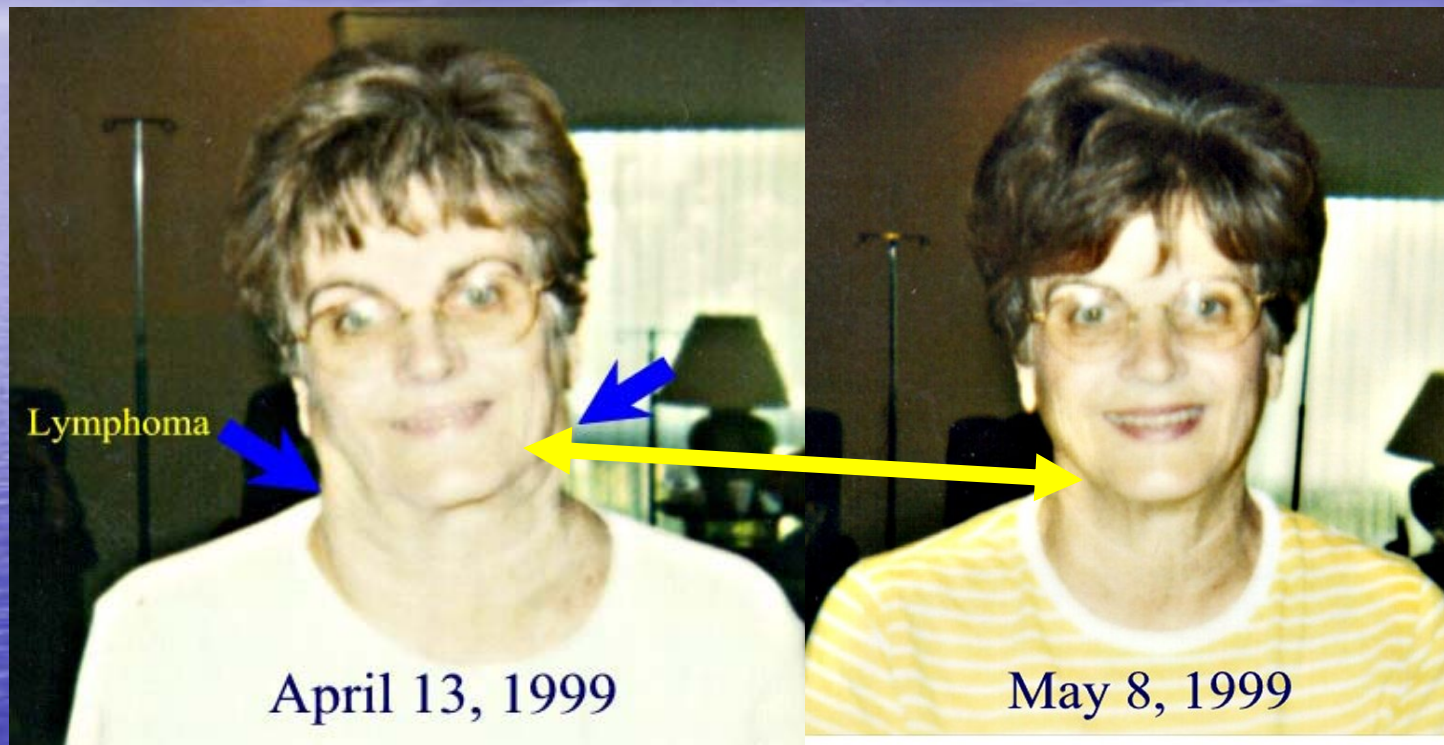


My Introduction to Energetic Medicine

Janet was going in and out of consciousness and went to see Dr. Vance. That's when the first photo was taken. Four days later, her tumors were gone. The second photo was taken about 3 weeks later.



My Introduction to Energetic Medicine



Lymphoma disappeared in four days.
She is still cancer-free in March 2002

Janet's Lymphoma Cure

- Homeopathics from Pleomorphic (micro-organisms change from one type to another) substances = Sanum Remedies
- Vitamin C
- Remove dental fillings = amalgams
- Detoxification to remove mercury
- Cytokines

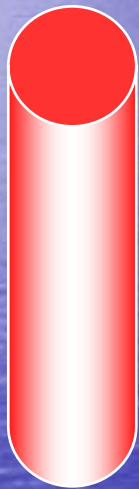
Energetic Medicine

- To understand Energetic Medicine and how the Tennant Biomodulator™ works, one must have some understanding of how cells work.
- Let's look at some basic changes in our understanding of "How Things Work" that have happened this century.

Chronic Disease = Electronegative

- The injured area must stay electropositive for healing to occur. Everything needed to heal is electronegative and the charge is necessary to attract the healing items.
- If the injured area becomes electronegative, healing stops. Negative repels negative and the things needed to heal are repelled.
- Chronic disease is electronegative (cancer is very electronegative).
- Healing occurs when the injured area is switched back to electropositive.

New Proof of How We Heal



Healing Items:

- Neuropeptides (RP)
- RBC
- WBC
- Proteins
- Fats



Injured areas are electropositive. That attracts the things needed to heal.

Current of Injury Becomes Negative → Chronic Disease

Healing Items:
Repelled by
Negative Charge



Injury

Causes of Switch to Electronegativity:

1. Loss of electrons in membranes due to increased impedance from chronic swelling.
2. Bleeding (RBC's are electronegative).
3. Cytoplasm (electronegative) dumped into extracellular fluid as membranes rupture.

Changing to Normal Polarity Helps Restore Healing in Chronic Disease

Electronic
Devices Can
Help Restore
The Polarity.



How Cells Work

Membrane

1. Electrical System
2. Stores electrons
3. Capacitor (two protein layers separated by a fat layer).

Peripheral Cytoskeleton

1. Fuel storage
2. Stores ATP in Structured Water/Protein
3. Resistor

Nucleus

1. Contains DNA
2. Responsible for Reproduction

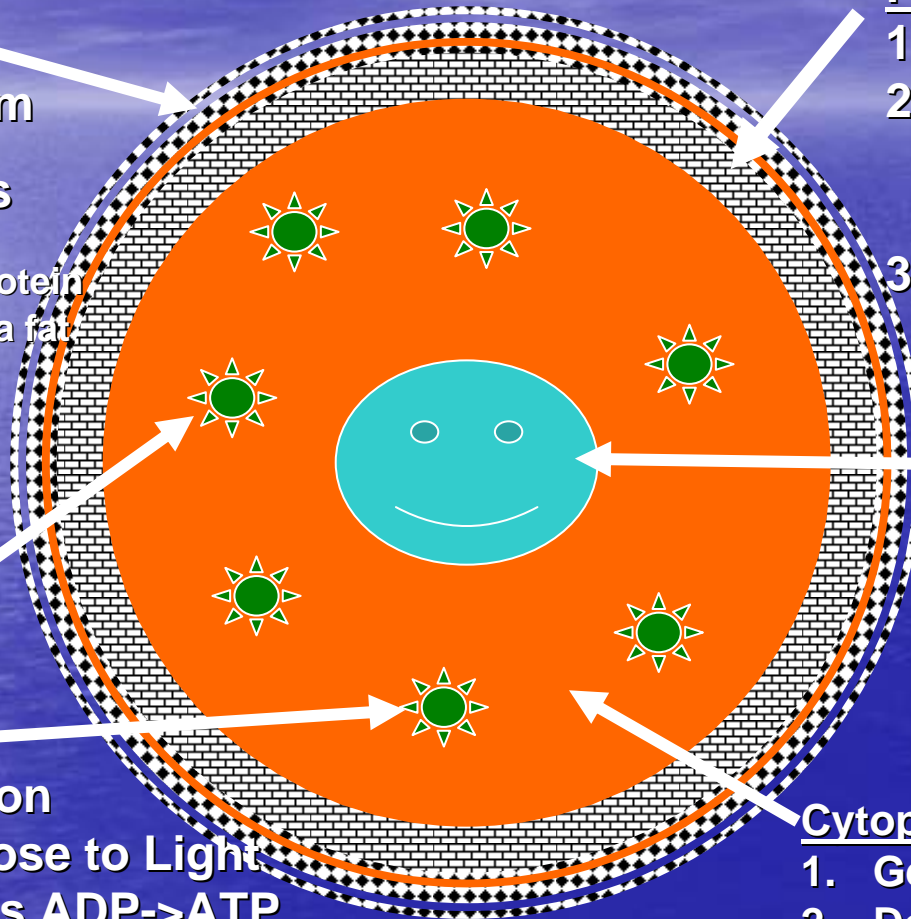
Mitochondria

1. Fuel Production
2. Convert Glucose to Light
3. Light Converts ADP->ATP

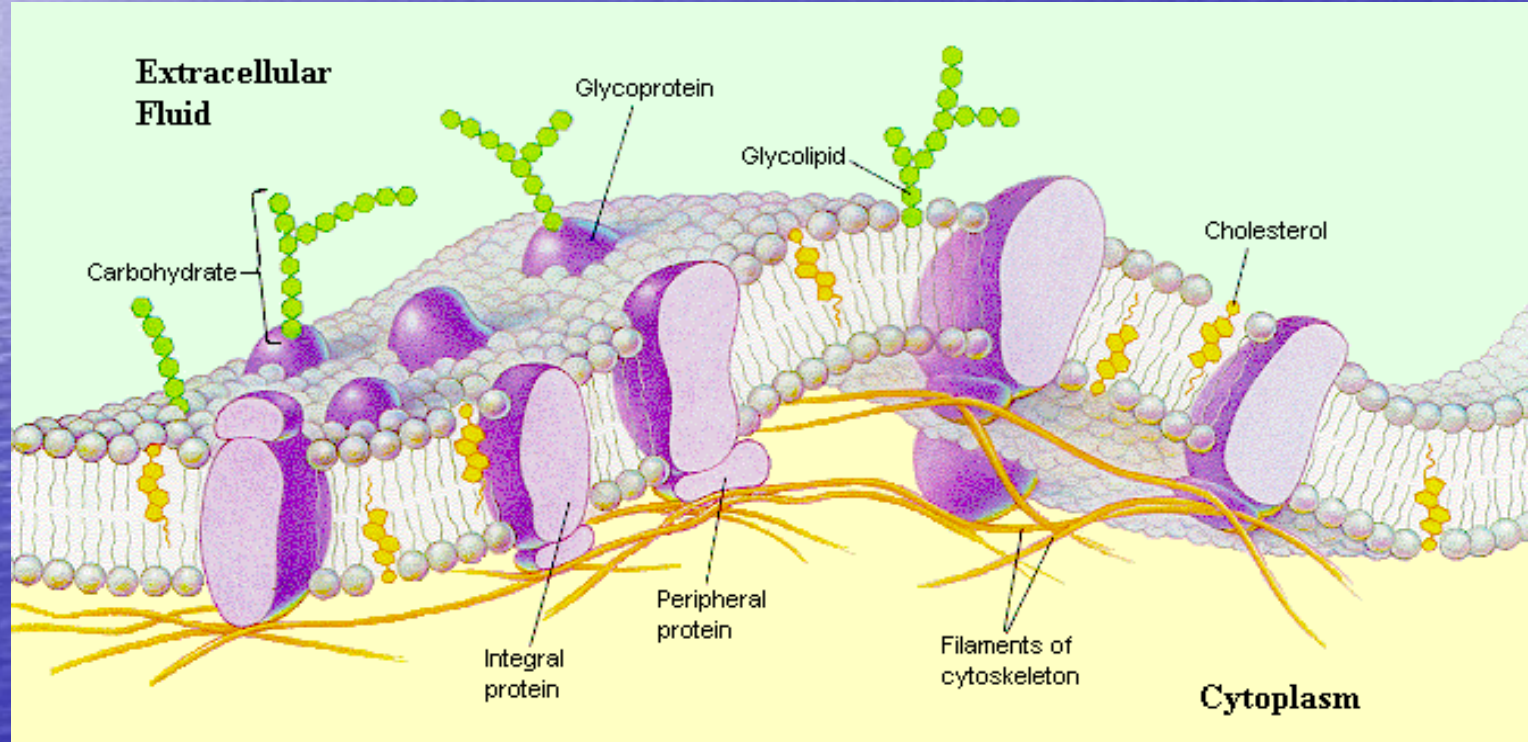
Cytoplasm

1. Gel Structure
2. Does Work of the Cell
3. Follows Cell Programming
4. Follows Instructions from Regulatory Neuropeptides

Nutrition: Provides Raw Materials for Cell's Work



Cell Membrane Wired in Parallel with Peripheral Cytoskeleton Proteins



http://sun.menloschool.org/~cweaver/cells/c/cell_membrane/

Cells Gels and the Engines of Life

Gerald H. Pollack

- Lying just inside the cell membrane is a dense polymer-gel matrix known as the **peripheral cytoskeleton**. It is cross-linked filaments and microtubules.
- The cytoskeleton has a high negative charge.
- Any change in the cell potential must be a change in the cytoskeleton.

Cells Gels and the Engines of Life

Gerald H. Pollack

Elimination of the peripheral cytoskeleton of the cell eliminates its action potential (Tasaki and Matsumoto, 1950)

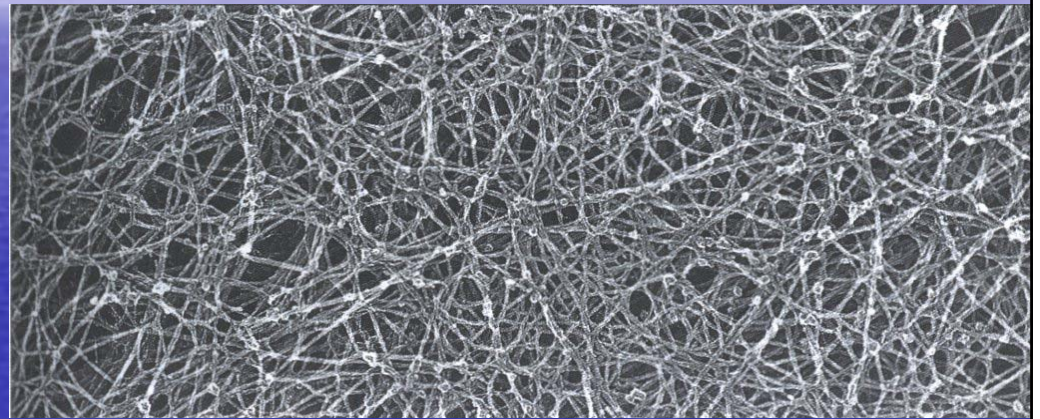
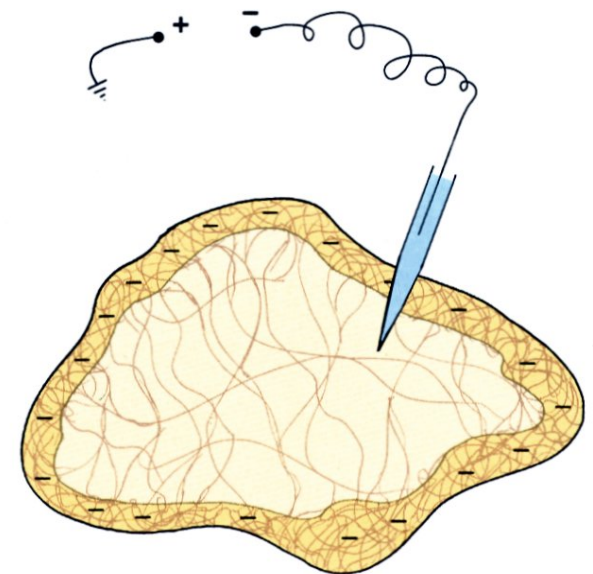


Figure 10.3. The peripheral cytoskeleton encircles the cytoplasm with a ring of negative charge, leading to a negative cell potential.



How Cells Work

- The **cytoplasm** of the cell does what it is programmed to do. If it is a liver cell, it does “liver functions”. If it is a heart cell, it contracts.
- Cells know what they are programmed to do and they will do what they are designed to do if they have the energy to do it!
- Thus the body knows how to heal itself and, if it has the energy, it will do so!

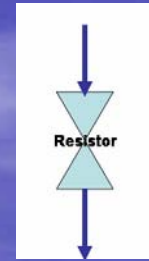
How Cells Work

- The **nucleus** of the cell is the reproductive organ. It allows the cell to duplicate itself.
- Cells work just fine without a nucleus. They just can't reproduce without the nucleus.

How Cells Work

- The **mitochondria** of the cell are the “petroleum refinery” plants. Just as refineries process crude oil into gasoline, mitochondria process glucose into adenosine triphosphate (ATP), the fuel for cells.
- In the mitochondria, glucose is processed via Citric Acid Cycle of Krebs to CO_2 and H_2O with the release of light photons.
- Light photons convert ADP to ATP.
- ATP is transferred to the Peripheral Cytoskeleton where it is stored for future use.

How Cells Work

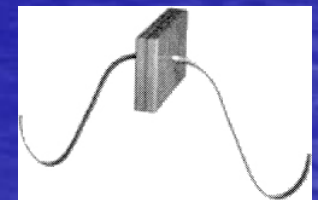
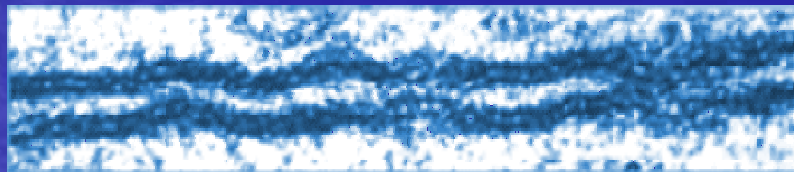


- The **peripheral cytoskeleton** lies just inside the membrane. It is the fuel storage for the cell. It stores ATP, is a resistor (impedance) that controls cellular electronics and passage of ions into the cytoplasm via structured water layer, and uses electrons from the membrane to maintain the proper flow of current (amperage).
- Cells can function with holes in the membrane, without a membrane, and without a nucleus. They cannot function without a peripheral cytoskeleton.

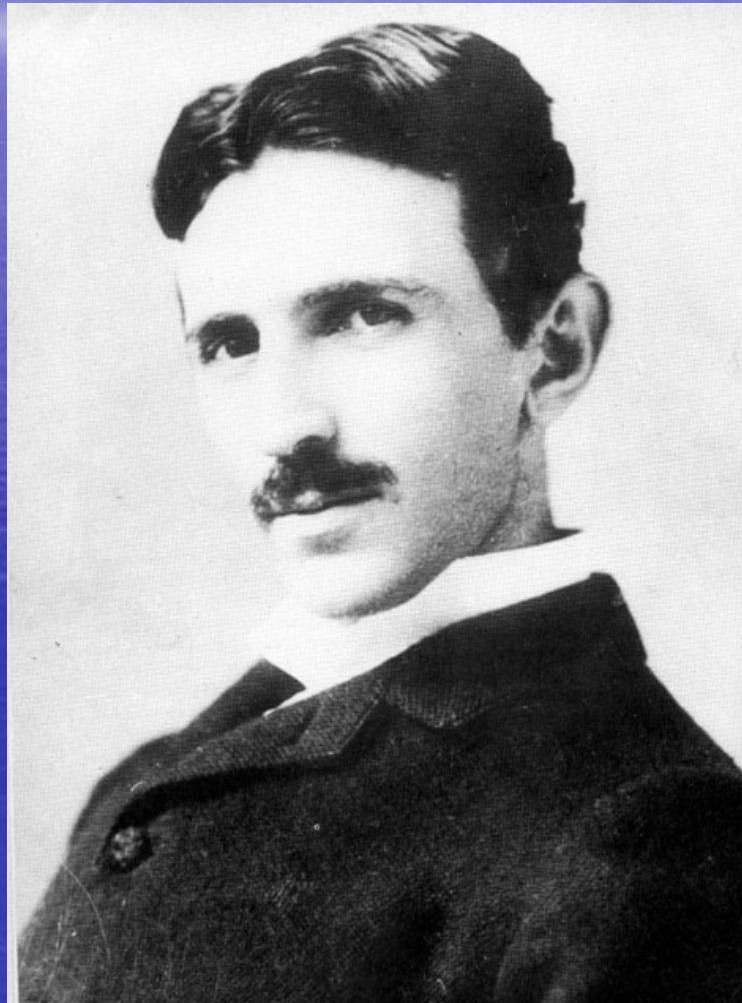
How Cells Work

Capacitor

- In electronics, a capacitor is a structure capable of storing and releasing electrons. It is dielectric = two conducting layers separated by a non-conducting layer.
- The **membrane** is a dielectric structure, i.e., it is two layers of electron-conducting proteins separated by an insulating fat layer. Thus it is just like a typical capacitor.



Nikola Tesla Invented Tuned (Oscillating) Circuits



Tesla's Inventions

1. Rotating magnetic field
2. Induction motor
3. AC power transmission, transformers, alternators, turbines
4. Commutators and regulators for dynamo machines
5. Electric meter
6. Electric arc lamp
7. Fluorescent and neon lights
8. Radio tubes and precursor to TV tube
9. Refrigeration devices
10. Ozone producing machines

Tesla's Inventions

11. Electrical igniter for gas engines
12. Lasers
13. Dematerialization devices
14. Particle beam weapons
15. Wireless transmission
16. Cellular telephone, scramblers, encryption devices
17. Remote control
18. Radar, stealth technology
19. Lightning protectors

Tesla's Inventions

- 20. Artificial intelligence and automatons
- 21. Oscillator and Tesla coil
- 22. Steam turbines
- 23. Bladeless pumps
- 24. Water fountain
- 25. Hovercraft
- 26. Reactive jet dirigibles, flying wing designs
- 27. Helicopter-airplanes
- 28. Magnifying transmitter
- 29. Fuel-less planes and automobiles

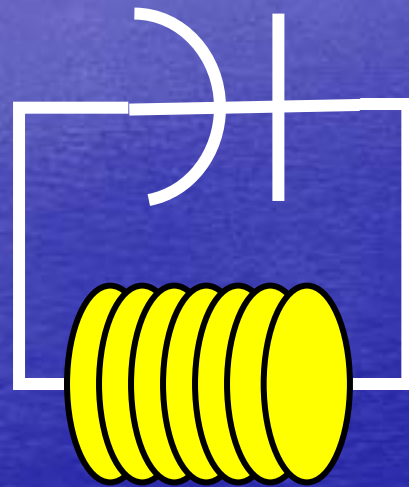
Tesla's Inventions

- 30. Weather control systems
- 31. Method for obtaining fertilizer from nitrogen in the air
- 32. Electro-therapeutics
- 33. Electric bath
- 34. Teleogeodynamics and earthquake machines
- 35. Speedometers and tachometers
- 36. Cosmic ray generators for power transmission between planets

Tesla

- 1895 - invented **Tuned Circuit = Resonating Circuit.**
- 1896-1914 - Tesla patented a series of inventions that are the basis for modern radio and TV.
- 1899 - he sent power around the world without wires with a 10 million volt electrical oscillator in Colorado Springs, Colorado.

Parallel Tuned Circuit (LC Circuit)

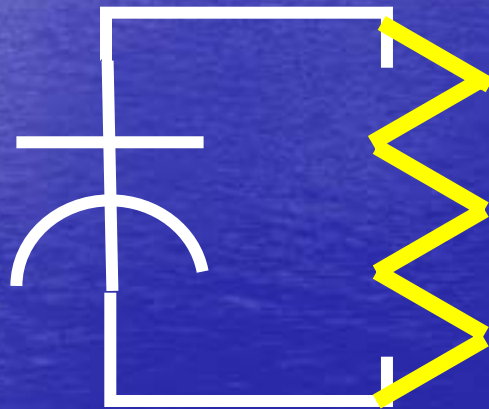


Parallel Tuned Circuit

- **Parallel Tuned Circuits** are used in radio and other electronics to **couple Resonant Energy** from one circuit to another in transmitters and receivers.
- This is the system used by cells (membrane and peripheral cytoskeleton) to couple energy from cell to cell and into the cell.

Parallel Tuned Resistance/Capacitance (RC) Circuit

Cell Membrane
(Capacitor)



Peripheral
Cytoskeleton
(Resistor)

Series Tuned Circuit



Coil

Capacitor

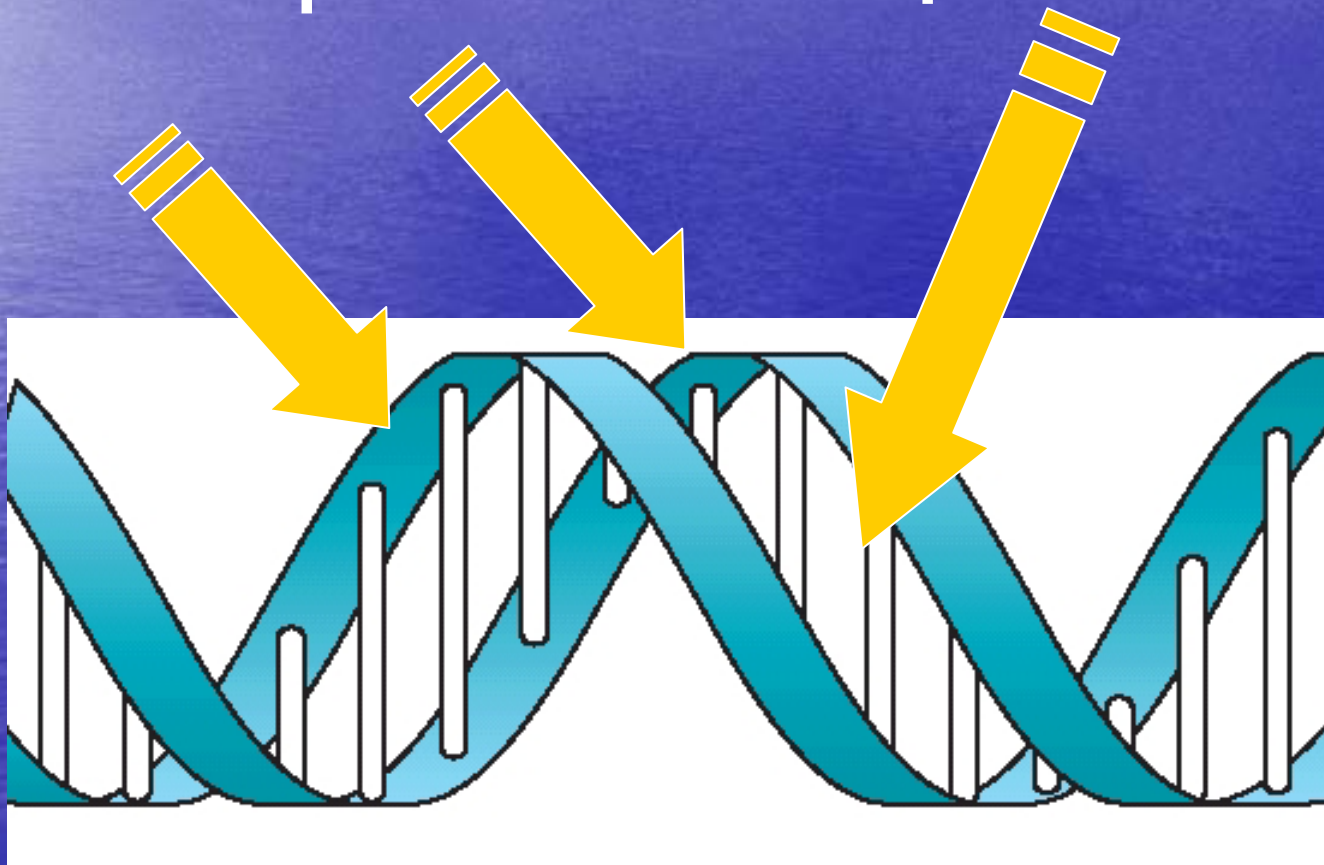
Series Tuned Circuit

- A **series tuned circuit** is used to electrically “stretch” or “shorten” an antenna or waveguide (transmission line) so that the length of the antenna or waveguide will match the length of the incoming wave.
- In the body, extracellular fluid (impedance) and organs (capacitance) are wired in series as a series tuned circuit.

DNA is a Tuned Circuit

Double Helix
Forms Capacitor

Coil Creates
Impedance



Examples of Resonating Circuits

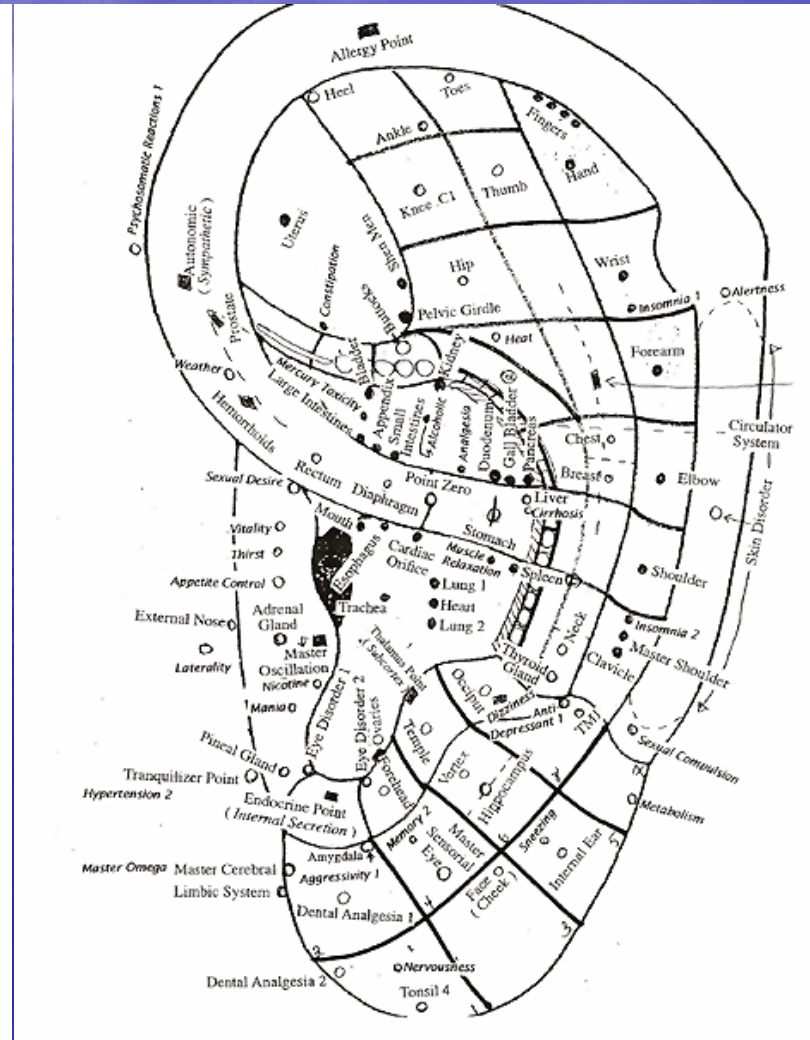


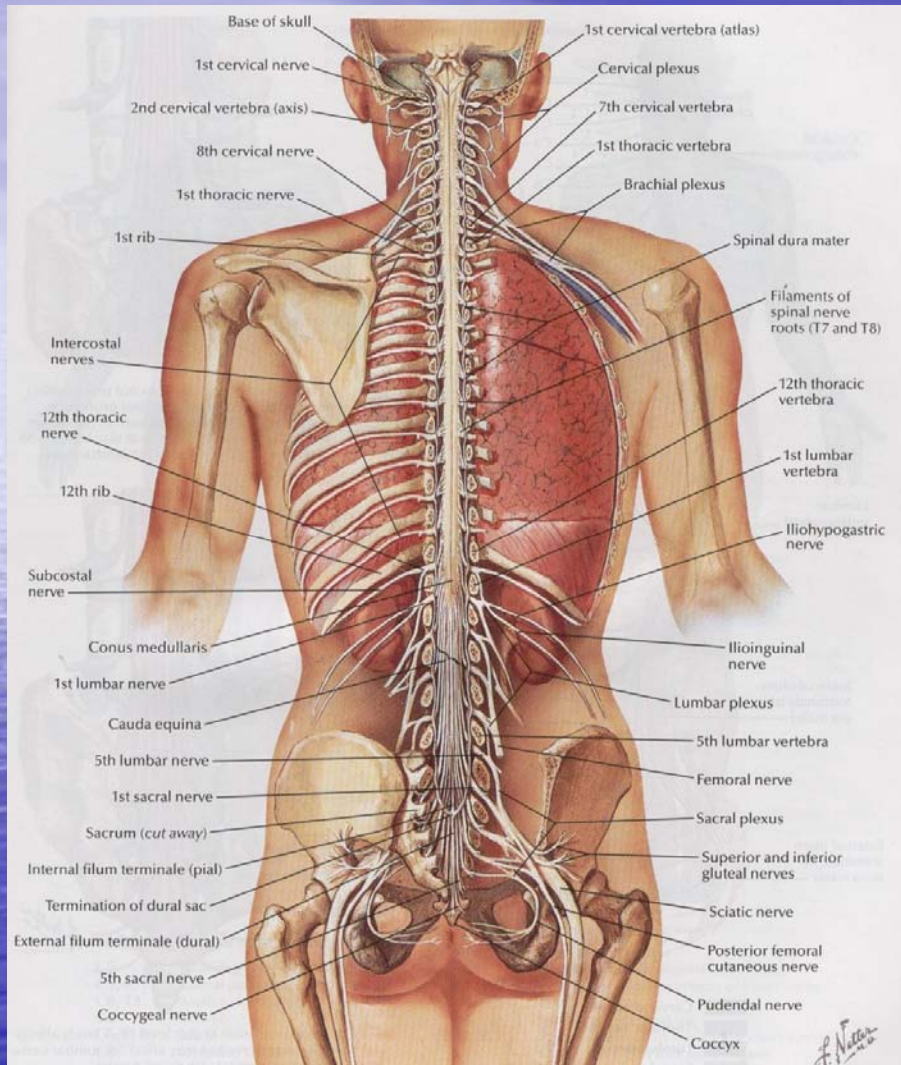
<http://www.vh.org/pediatric/patient/dermatology/tattoo/images/ear.jpg>



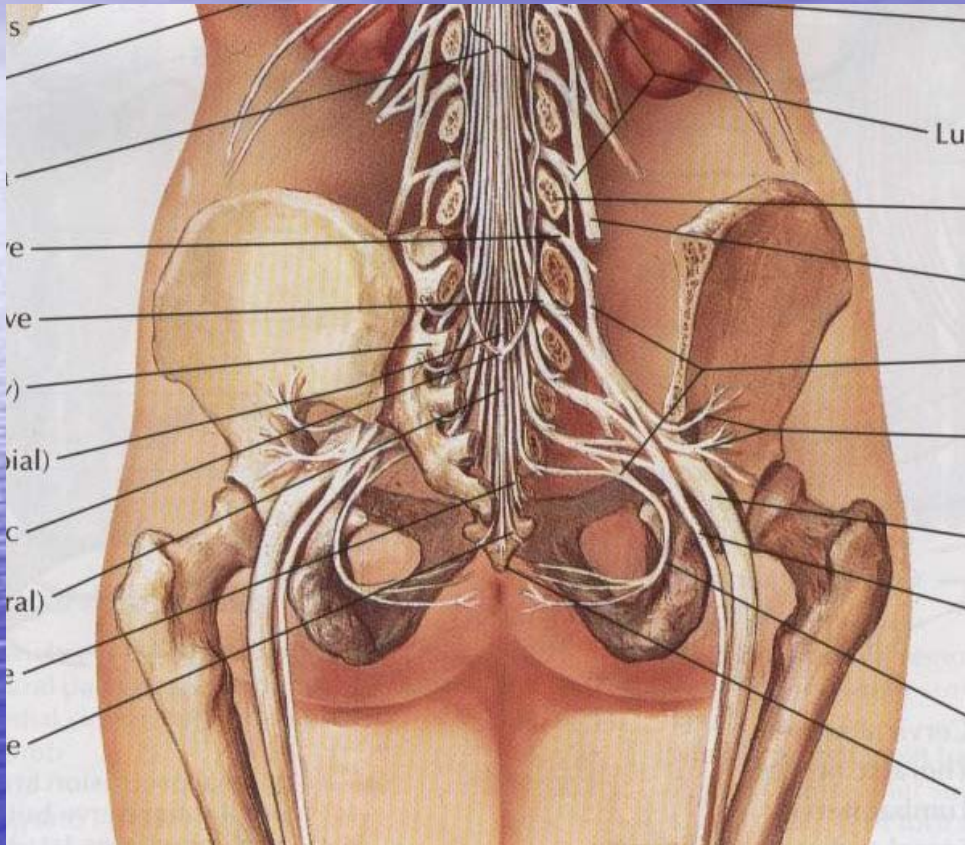
<http://www.blumoonwebdesign.com/1source-body-piercing-jewelry.com/images/bellypiercing-wh.jpg>

Auricular Acupuncture Points

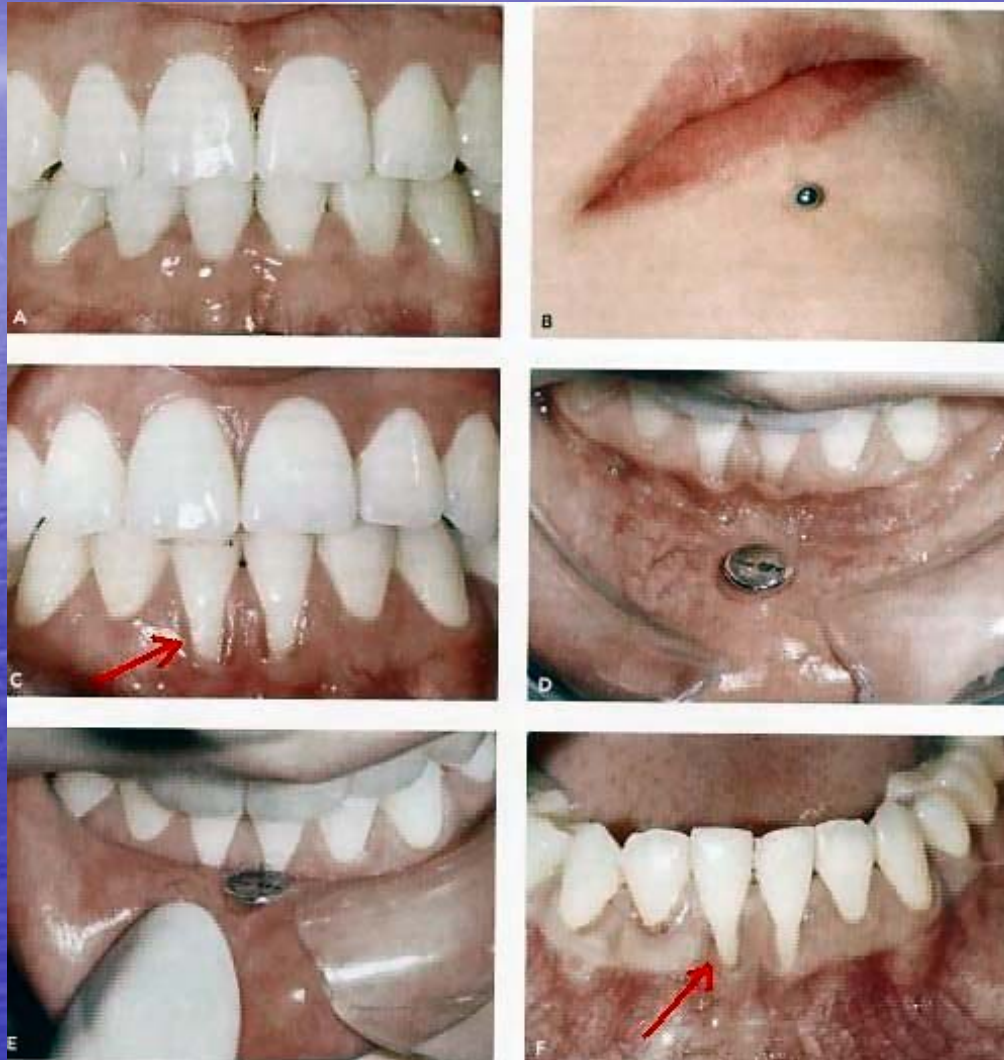




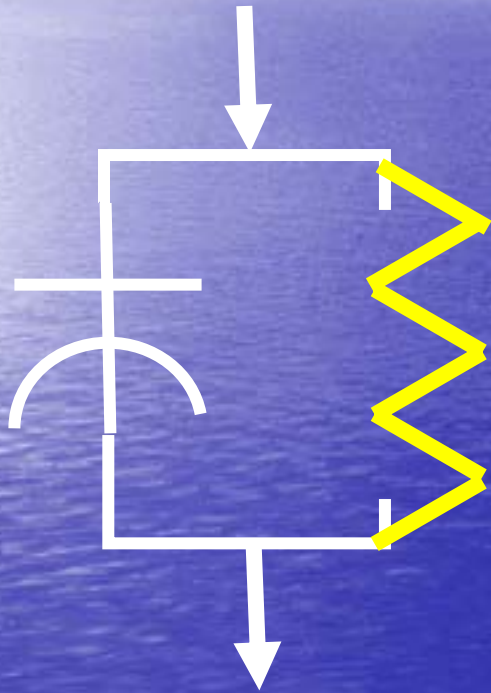
Tattoo (Carbon Particles) in Primary Nerve Plexus



Periodontal Inflammation Due to Body Piercing



How Cells Work



Cells work like this typical circuit.

1. Current flows to the capacitor/resistor combination.
2. Electrons may be stored in the capacitor and/or flow through the resistor.
3. The capacitor may store or release electrons to keep the flow through the resistor constant.
4. The flow of current (amperage) is thus maintained at a constant level.

How Cells Work

Membrane

1. Electrical System
2. Stores electrons
3. Capacitor (two protein layers separated by a fat layer).

Peripheral Cytoskeleton

1. Fuel supply
2. Stores ATP in Structured Water
3. Resistor

Nucleus

1. Contains DNA
2. Responsible for Reproduction

Mitochondria

1. Fuel Production
2. Convert Glucose to Light
3. Light Converts ADP->ATP

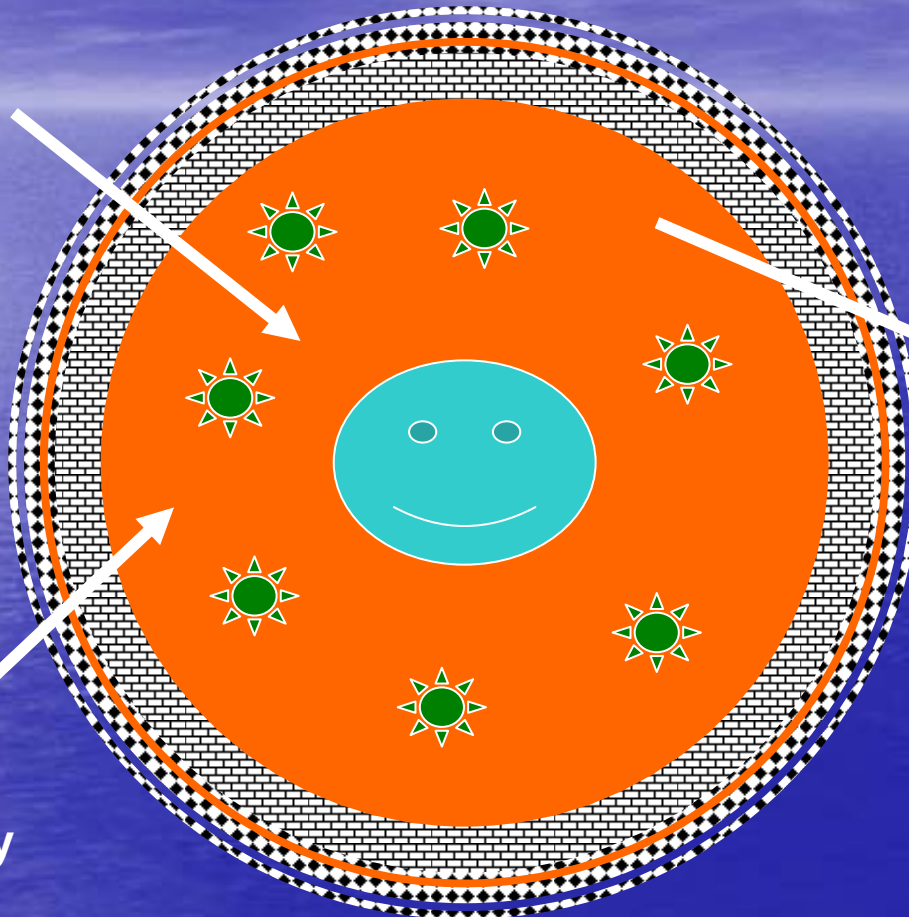
Cytoplasm

1. Gel Structure
2. Does Work of the Cell
3. Follows Cell Programming
4. Follows Instructions from Regulatory Neuropeptides

Nutrition: Provides Raw Materials for Cell's Work

How Cells Work

Nutrition Is
Required To
Keep This
Machinery
Working

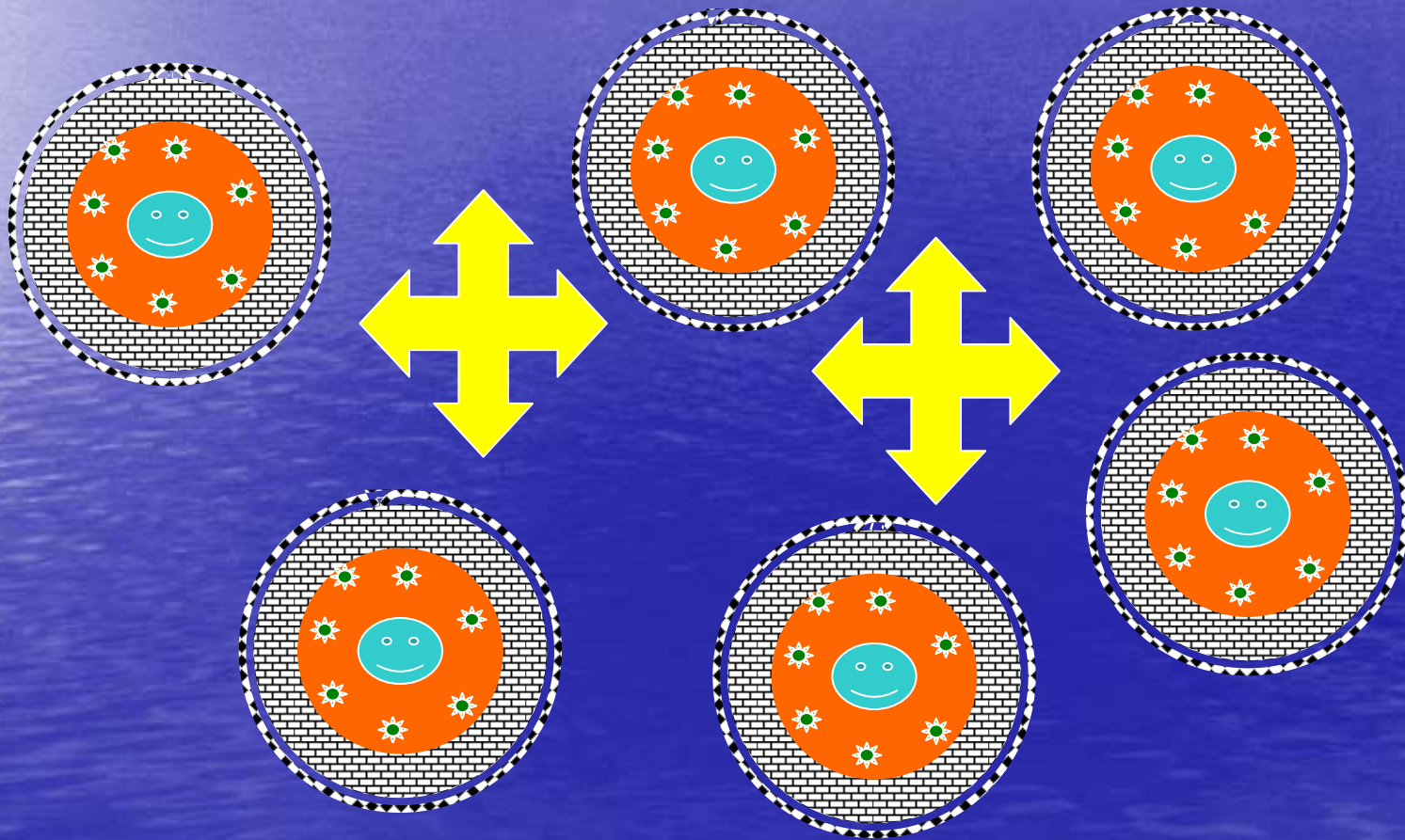


Cell Waste Is
Excreted Here
And Must Be
Removed By Lymph
Which Requires
Muscle Contraction
(Exercise)

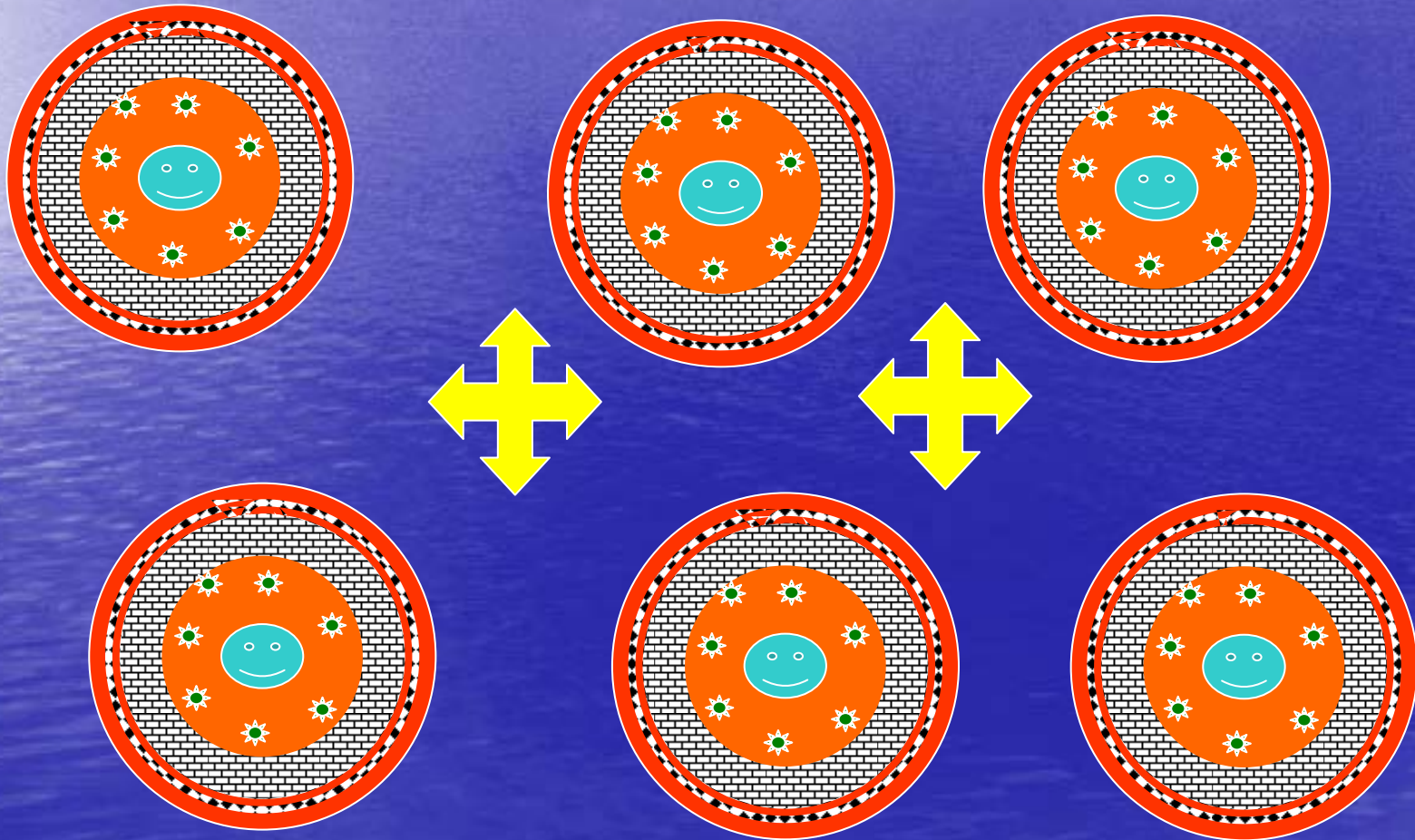
Drugs Usually
Work Here

**All Of These Functions Require
Voltage From Cell Membrane
And ATP From Cytoskeleton.**

Electrons are Shared from Cell to Cell to Maintain Function of Organs/Systems

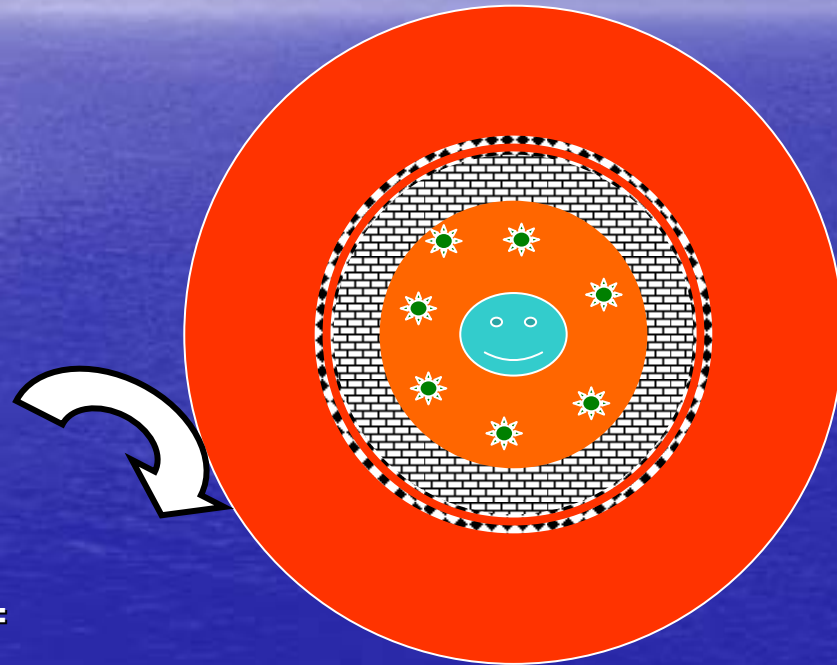


As Cells Begin to Swell When They Become Sick, Resistance to the Flow of Electrons Increases (Increased Impedance)



Cell Inflammation = Increased Cell Impedance

As Impedance
(Resistance)
Increases, Oxygen
and Nutrients to the
Cell Decreases and
Flow of Electrons
Decreases (Power), =
pH becomes acidic.



Cell Malfunction (Illness) is a Loss of Power to the Cells

- Cell injury (trauma, infection, metabolic) causes swelling with an increase in impedance (resistance).
- Cell membrane (capacitor) provides electrons to try to maintain normal current.
- Cell membrane (capacitor) runs out of electrons (decreased voltage).
- Loss of current to cell results in slowing → stopping of cell function.

Cell Malfunction (Illness) is a Loss of Power to the Cells

- As cellular dysfunction continues, swelling becomes degeneration and then scarring.
- Degeneration and scarring destroy the cell's capacitor (membrane) and resistor (peripheral cytoskeleton).
- Cell function is then lost.

Healing is Always Electronic

- Healing requires restoration of the power supply and oxygen to the cells.
- Electrons and oxygen are transported by alkaline water.
- One must supply electrons to the membrane (capacitor).
- One must supply light (or glucose to create light) and nutrients to create ATP (“cellular gasoline”).
- Once they have enough energy, cells know what to do – it is programmed into them = the body knows how to heal itself.

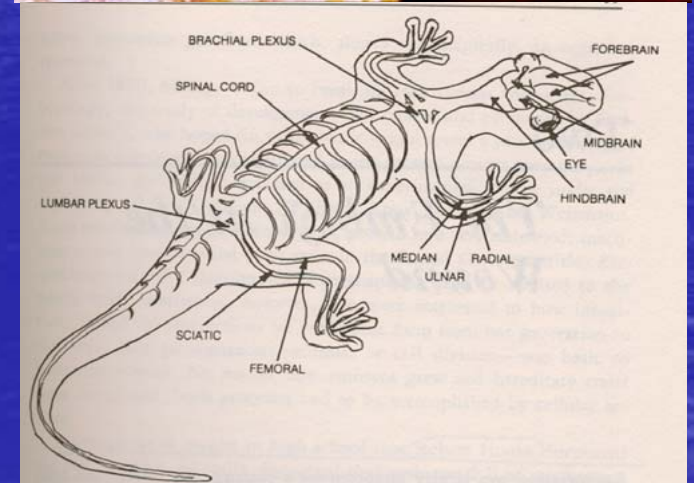
Healing is Energetic Medicine

- Healing always requires the restoration of the power supply to the cells/organs.
- The restoration of power to cells/organs is called Energetic Medicine.

The Body Electric

Robert O. Becker, MD

- Regeneration is the ability of lower animal to replace missing body parts. It is particularly evident in the salamander.
- The salamander has essentially the same anatomy as the human = same number of bones, muscles, and nerves in the same arrangement.



The Body Electric

Robert O. Becker, MD

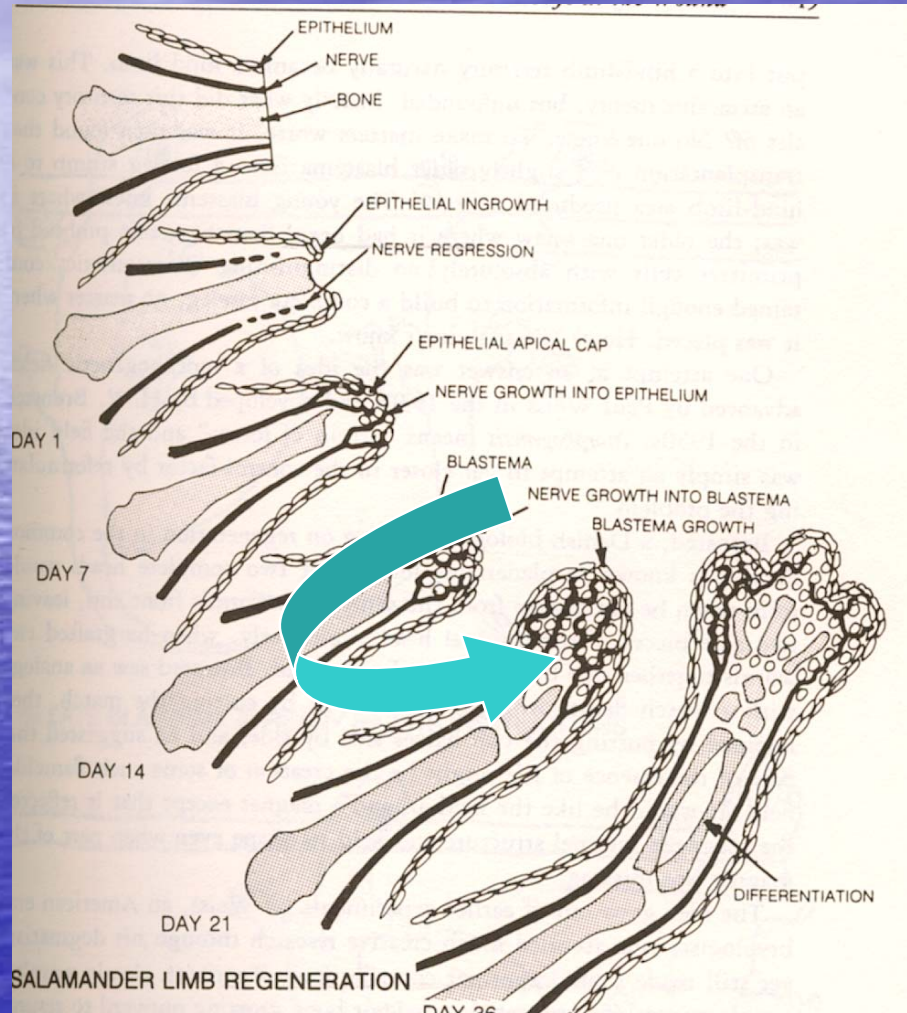
- The salamander is capable of growing an exact replacement of an arm, leg, eye, ear, up to 1/3 of its brain, almost all of its digestive tract, and up to 1/2 of its heart.
- The salamander is so efficient at regeneration that it does not get cancer!
- The regeneration of the salamander cannot be explained by the chemical-mechanistic views of traditional medicine.

The Body Electric

Robert O. Becker, MD

- Regeneration
 - Amputation.
 - Skin grows over stump.
 - Cut ends of nerves in stump connect with each skin cell called **neuro-epithelial junction** (NEJ).
 - NEJ produces negative electrical current.
 - Negative current changes normal cells to primitive cells = blastema.
 - Mass of primitive cells appears between cut end of stump and the NEJ = **blastema** = primitive cells from bone, muscle, etc. that have de-differentiated back to embryonic state.

The Body Electric Robert O. Becker, MD



NEJ produces negative electrical current. Negative current changed normal cells to Blastema (primitive cells).

The Body Electric

Robert O. Becker, MD

- Remove and re-implant the blastema before ten days, it grows a duplicate of the organ it is near.
If amputate an arm:
 - Implanted near tail produces a second tail
 - Implanted near the hind leg grow a second hind leg.
- Remove and re-implant the blastema after ten days, it grows a duplicate of the organ it is from.
If amputate an arm:
 - Implanted near tail produces an arm growing out of the tail.
 - Implanted near the hind leg grows an arm out of the leg.

The Body Electric

Robert O. Becker, MD

- The nerve-impulse nerves of the brain and body are digital = information is in discrete steps of on/off.
 - It is sensitive to frequency of the signal.
 - It controls the conscious mind and the autonomic nervous system (automatic control of blood pressure, breathing, etc.)
- The second nervous system of the body is the perineural system of glial cells, Schwann cells, etc. that surround the other nerves.
 - It is an analog system = continuously variable strength of signal, direction of flow, and waves of strength.
 - It controls growth, healing, and biological cycles.

The Body Electric

Robert O. Becker, MD

- The perineural analog system
 - Delivers the information to the blastema about how to grow a new body part (regeneration). Nerves have nothing to do with it.
 - Senses injury and controls repair.
 - Controls local environments.
 - Is the primary system in the brain.
 - Regulates our consciousness.
 - Regulates decision making.

The Body Electric

Robert O. Becker, MD

- The **current of injury** is always positive initially and lasts as long as healing is occurring, e.g., weeks.
- In animals that cannot regenerate (like the human), it stays positive and healing occurs by scarring.

The Body Electric

Robert O. Becker, MD

- In animals capable of regeneration (like the salamander), it turns negative and the NEJ → blastema → regeneration begins.
- In the human, the only regeneration that normally occurs is bone; the current in healing bone is negative and the current in cancer is very negative.

The Body Electric

Robert O. Becker, MD

- Most scientists do not believe that cells can de-differentiate (revert to primitive cells).
- Frog red blood cells have a nucleus.
 - With small negative currents (in billionths of amperes), they will de-differentiate.
 - With larger currents, this does not occur.
- Becker showed that the healing / regeneration process could be artificially started with small negative currents in non-healing human bones!

The Body Electric

Robert O. Becker, MD

- The arm of a rat (doesn't normally regenerate) was amputated.
- Extremely small amounts of negative electric current were given.
- A new arm grew down to the elbow!
- The neuro-epithelial junction (NEJ) was found to be the source of the negative electrical current that stimulates de-differentiation of cells.
- Only certain cells in each animal seem to be capable of de-differentiation.

The Body Electric

Robert O. Becker, MD

It is thus obvious that small negative electrical currents can cause de-differentiation of cells to make regeneration possible in animals that don't normally regenerate. The arguments about harvesting of embryonic stem cells might possibly be avoided by solving the question of the right voltage, amperage, and frequency.

The Second Brain

Michael D. Gershon, MD

- The chemical mediator of the parasympathetic system is **acetylcholine**.
- The chemical mediator of the sympathetic system is **norepinephrine**.
- The chemical mediator of the enteric system (second brain) is **serotonin**. It can also be modulated by **substance P**.

The Second Brain

Michael D. Gershon, MD

- It has been proven that the enteric system exists.
 - There are about 100 million nerve cells in our gut = similar to the number in the spinal cord.
 - There are only about 2,000 nerve cells in the vagus nerve that connects these 100 million cells to the brain.
 - If you cut the vagus nerve, the enteric system continues to function normally.
 - The enteric system is capable of ignoring commands from the brain = it is a second brain.

The Second Brain

Michael D. Gershon, MD

Our nervous system as currently taught:

- Central Nervous System (CNS)
 - Brain
 - Spinal Cord
- Peripheral Nervous System
 - Motor Nerves
 - Sensory Nerves
 - Autonomic Nervous System
 - Sympathetic System (Fight or Flight)
 - Parasympathetic System (Eat and Sleep)

The Second Brain

Michael D. Gershon, MD

- The autonomic nervous system was first described by J.N. Langley in *The Autonomic Nervous System* published in 1921.
- Langley described three parts of the system:
 - Sympathetic
 - Parasympathetic
 - **Enteric (gut)**
- After his death and with the discovery of norepinephrine as the neurochemical active in sympathetic and acetylcholine in parasympathetic, the enteric system was ignored.

The Second Brain

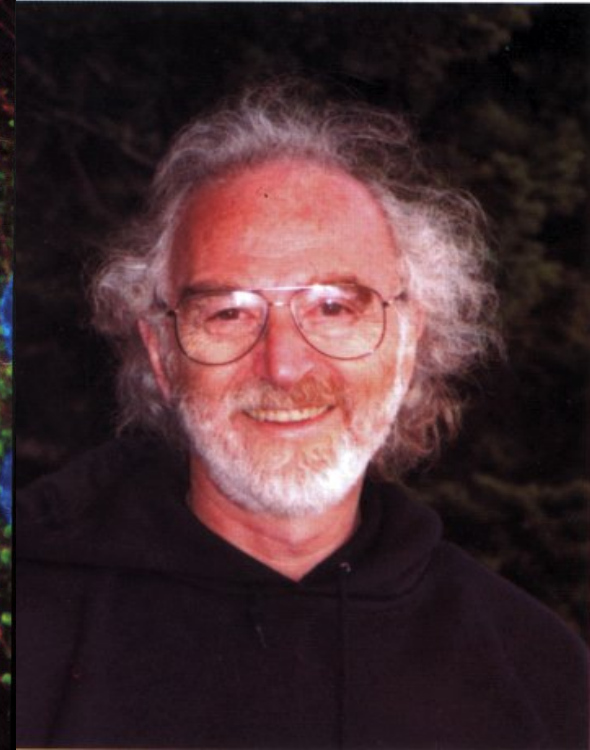
Michael D. Gershon, MD

- More than 95% of the body's serotonin is made in the gut!
- Essentially all of the neurotransmitters found in the brain are manufactured by the enteric system.
- The enteric system is capable of logic.
- Thus “gut feeling” is more than just a saying.
- The enteric system is actually a second brain.
- Because the enteric brain functions separately from the cranial brain, it is important to treat the abdomen as a separate unit from the cranial brain and spinal cord.

Gerald H. Pollack

Cells, Gels and the Engines of Life

A New, Unifying Approach to Cell Function



Cells Gels and the Engines of Life

Gerald H. Pollack

- 1665 - Robert Hooke saw pores in cork and called them *cells*.
- 1877 - Pfeffer described his membrane theory of cells = a plasma membrane surrounds cells.
- It was found that sodium was in high concentration outside cells and that potassium was in high concentration inside cells.
- It was thus believed that the cell membrane was semi-permeable = permeable to water but little else.

Cells Gels and the Engines of Life

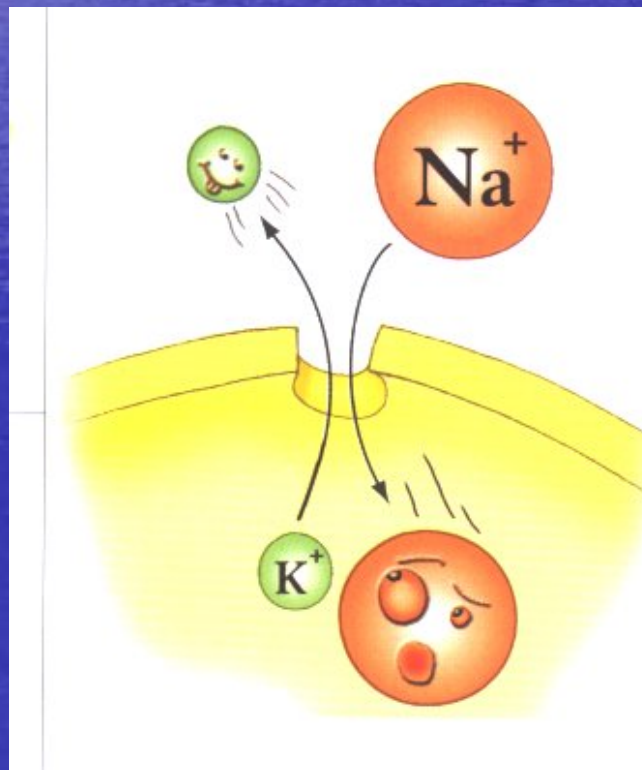
Gerald H. Pollack

- 1928 - Mond and Amson found that potassium could flow into and out of cells. Sodium was left in higher concentrations outside the cells.
- 1941 - Boyle and Conway proposed that a channel (pathway) existed allowing potassium to flow back and forth = pore-size = doggy-door = sieve theory. These pathways came to be known as **channels**.

Cells Gels and the Engines of Life

Gerald H. Pollack

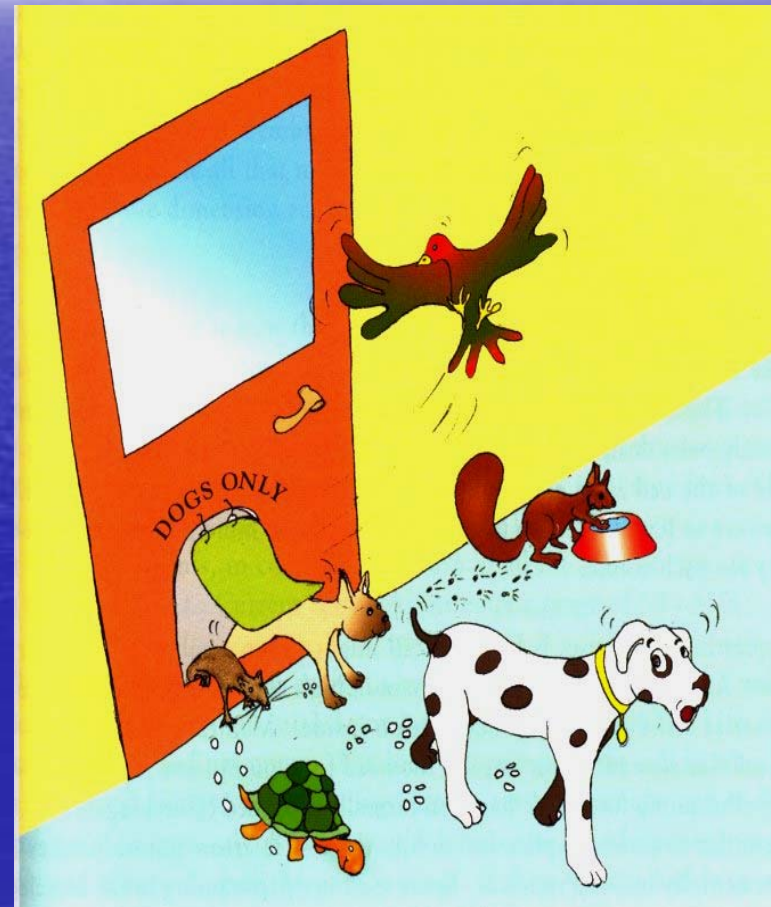
| Ion | Molecular Weight | Intracellular (mM) | Extracellular (mM) |
|-----|------------------|--------------------|--------------------|
| Na | 23 | 5 to 15 | 145 |
| K | 39 | 140 | 5 |
| Cl | 35.5 | 5 to 15 | 110 |



Cells Gels and the Engines of Life

Gerald H. Pollack

The problem with the **channel** theory (“doggy-door”) = things smaller than sodium were excluded from the cell and things larger than sodium got into the cell.



Cells Gels and the Engines of Life

Gerald H. Pollack

- Another problem developed. It was found that Na^+ could enter the cell.
- The solution proposed was that when Na^+ entered the cell, it was pumped back out. (Dean, 1941). Thus the idea of the Na/K pump came into existence.

Cells Gels and the Engines of Life

Gerald H. Pollack

- The problem is that there are many other substances that concentrate inside or outside of cells.
- To solve this problem, it has been said there is a different pump and a different channel for each of these hundreds of substances.

Cells Gels and the Engines of Life

Gerald H. Pollack

- There are several problems with the channel and pump theory –
 - There isn't physically enough room on the cell membrane for all those pumps and channels.
 - The energy required for just the Na/K pump is the entire energy of the cell.
 - Channels and pumps cannot be seen on the surface of cells with electron microscopy.
 - How can there be a pump for things the cell has never seen like a new antibiotic?

Cells Gels and the Engines of Life

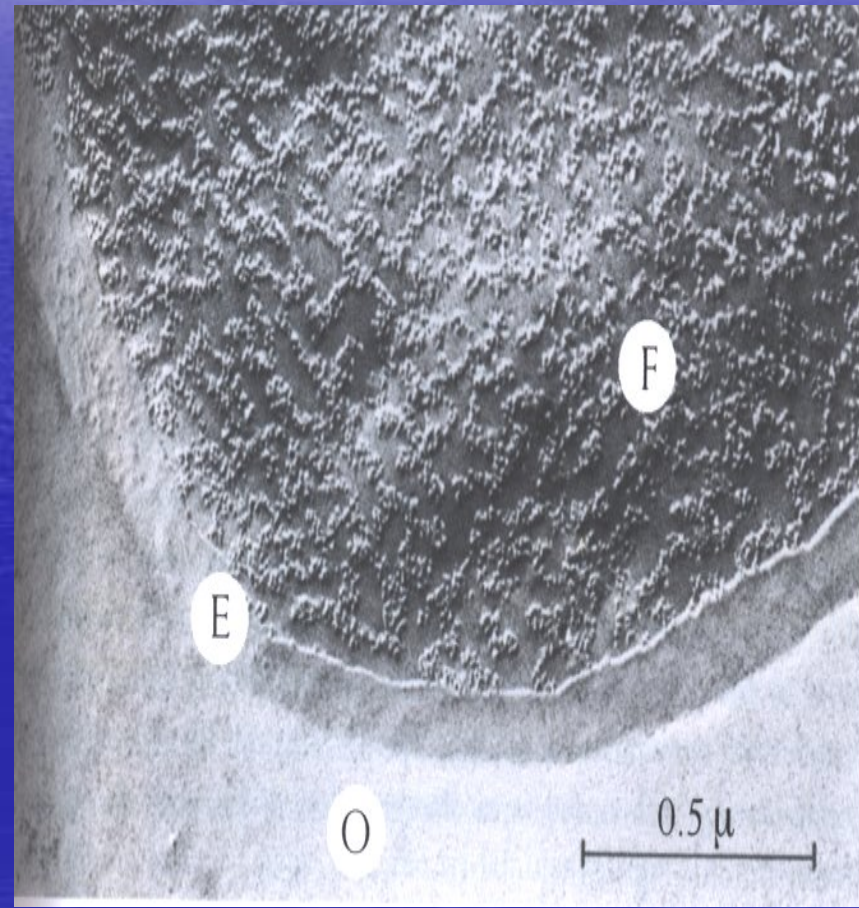
Gerald H. Pollack

- Note that the channel and pump theories were developed based on the original theory that the cell membrane in plants (and therefore in animals) was felt to keep water inside a cell and other things out.
- If you amputate part of the cell, it continues to function normally = the membrane does not function to separate the cell's interior from the exterior.

Cells Gels and the Engines of Life

Gerald H. Pollack

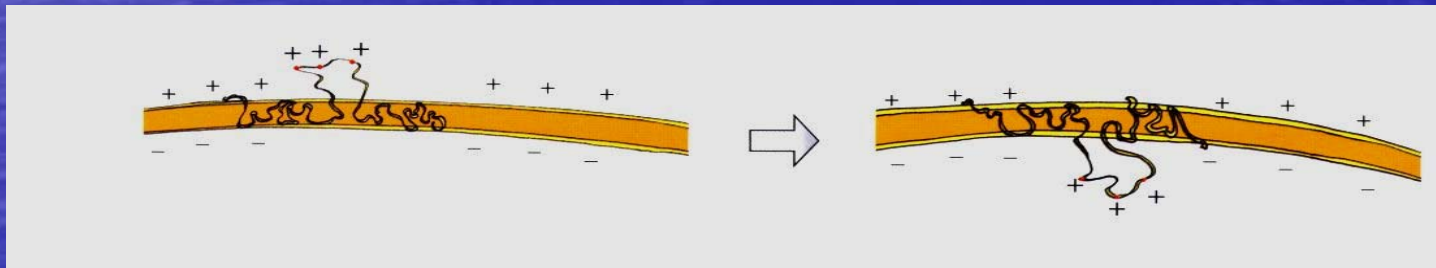
- The evidence that supports the existence of pumps/channels can be understood if we assign them different functions.
- Proteins are present in large numbers on the surface of membranes.



Cells Gels and the Engines of Life

Gerald H. Pollack

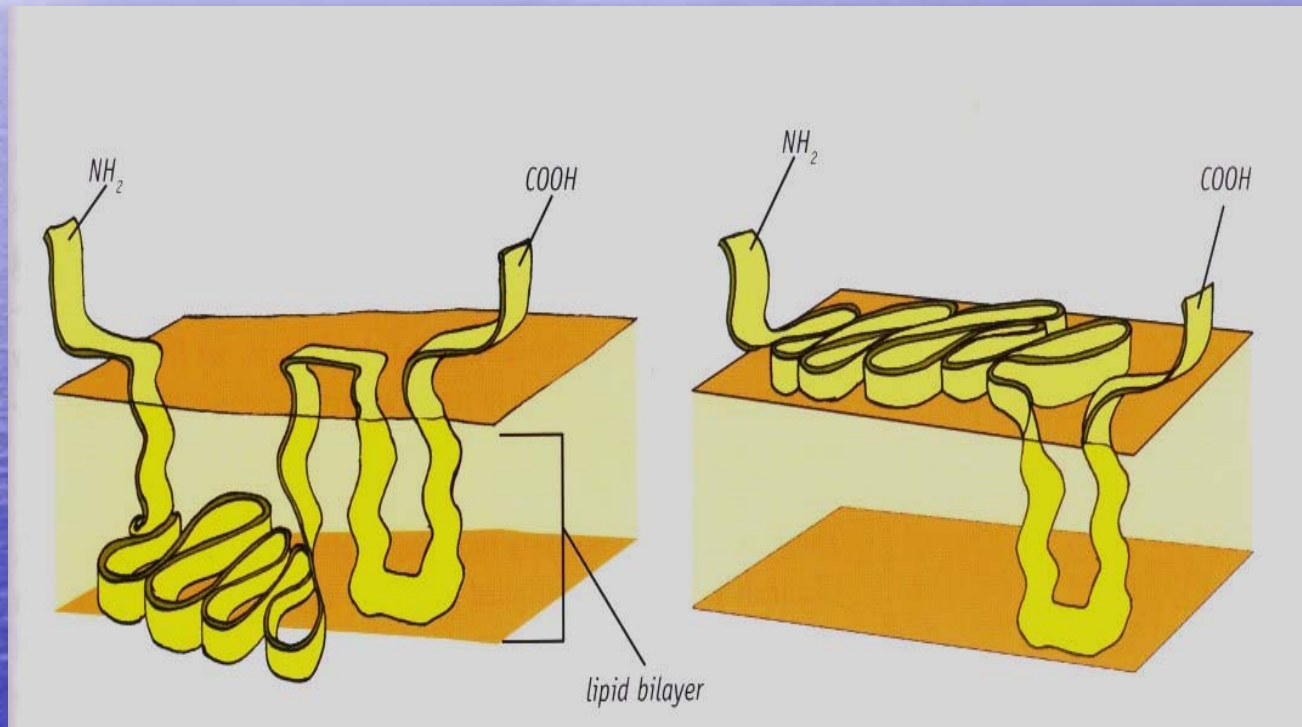
Proteins change shape/configuration. As the conformational change proceeds, any bound ion will shift in space along with the proteins. If the charge shifts against the voltage gradients, the results will be interpreted as pumping; if it shifts with the gradient, it will be presumed to have passed through a channel.



Membrane protein acting like a pump.

Cells Gels and the Engines of Life

Gerald H. Pollack



Channel protein that opens by flipping from one side of the membrane to the other.

Cells Gels and the Engines of Life

Gerald H. Pollack

- If ion partitioning were to require a continuous membrane acting as a barrier, violating the barrier should collapse these gradients.
- The injured cell should lose enzymes and fuel, metabolic processes should halt, and the cell should begin to die.

Cells Gels and the Engines of Life

Gerald H. Pollack

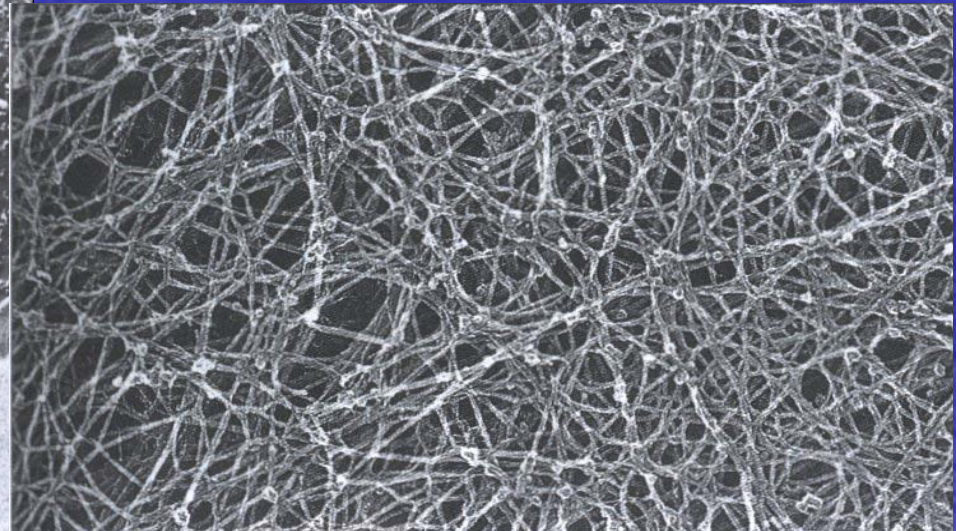
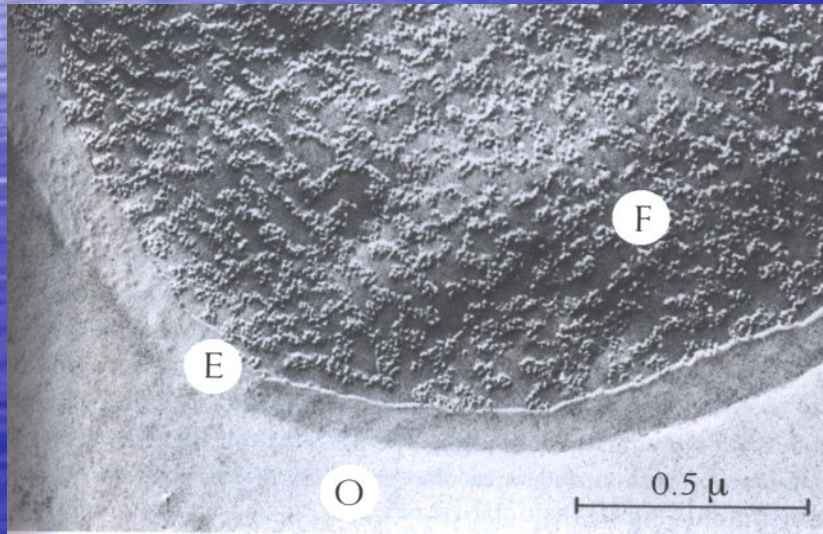
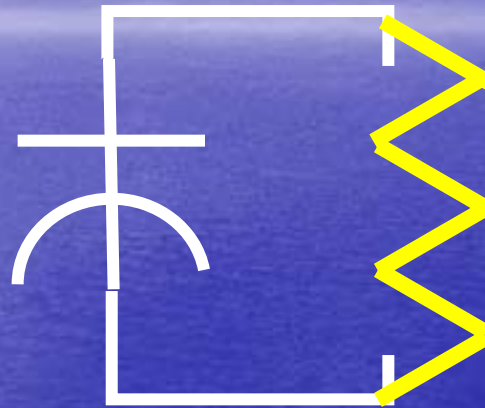
- The whole channel/pump theory was developed when it was thought that the enclosed cytoplasm was water or at least free to mix freely with the surrounding fluids. That is not true.
- Cytoplasm is gel-like, not water.
- The proteins in the cytoplasmic gel attract and hold ions, e.g., potassium.

Cells Gels and the Engines of Life

Gerald H. Pollack

- The very same charges and potential gradients that drive induction motors, surround power lines, and gate semiconductor junctions also pervade the living cell.
- Cells with their membranes removed measure -10 mV to -100 mV; it must come from the cytoplasm itself.

Membrane and Peripheral Cytoskeleton Parallel Resistance-Capacitance (RC) Circuit



Gel Characteristics

| Stimuli | Responses |
|---------------------------|--|
| pH | Chemical: stimulate or inhibit reaction or recognition |
| Temperature | Phase separation: precipitates |
| Chemical/biochemical | Shape change: shrink or swell |
| Solvents/salts | Surface: become non-wetting |
| Electrical field | Permeability: increase or decrease |
| Electromagnetic radiation | Mechanical: harden or soften |
| Mechanical Stress | Optical: clear or opaque |
| | Electrical: generate signal |

Cells Gels and the Engines of Life

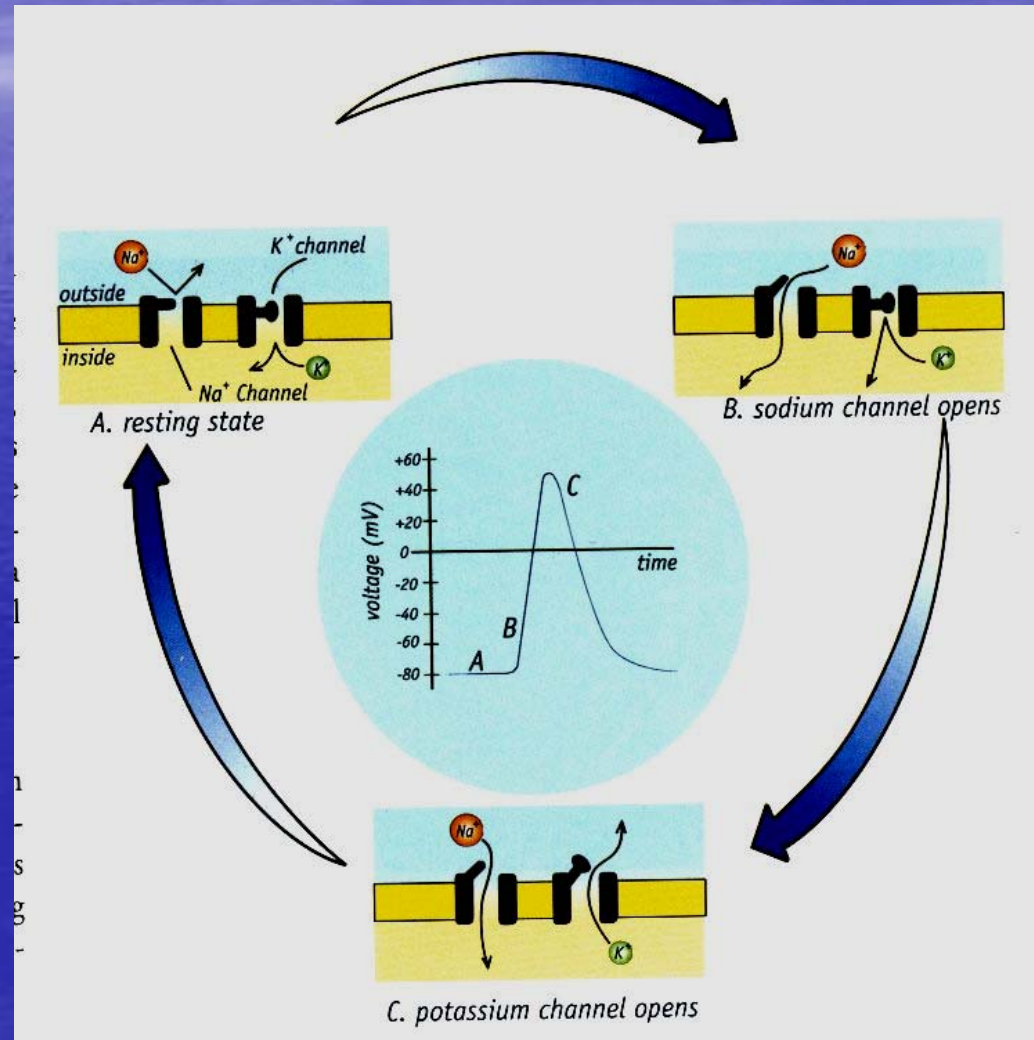
Gerald H. Pollack

- Cells that lose or change their oscillation frequency are unhealthy cells. Restoration of the oscillation restores health (Lakhovsky, 1926).
- Inanimate gels and cellular cytoplasm self-oscillate (Miyano and Osada, 1991).
- Restoration of the frequency requires the appropriate mix of stiff (Omega 6) and fluid (Omega 3) fatty acids plus voltage.

Cells Gels and the Engines of Life

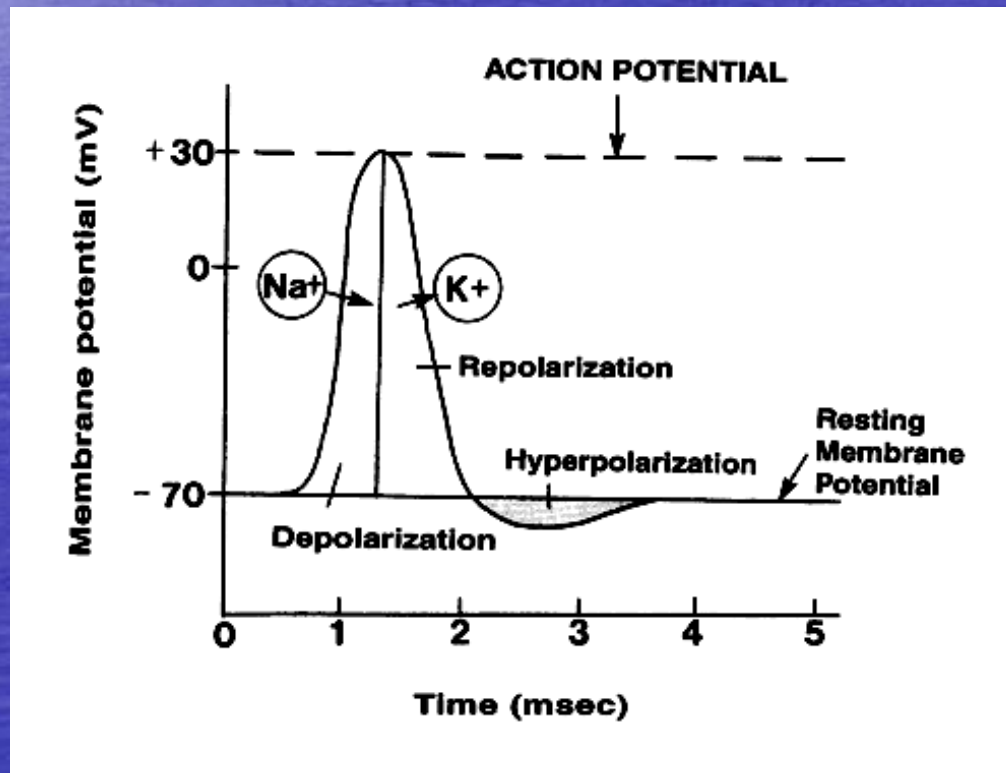
Gerald H. Pollack

- The Action Potential is the transient electrical spike that causes the cell to act.
- The figure to the right is the classical explanation.



Action Potential of Cells

- Tradition theory of Action Potential involves Sodium entering and Potassium leaving cells.



Cells Gels and the Engines of Life

Gerald H. Pollack

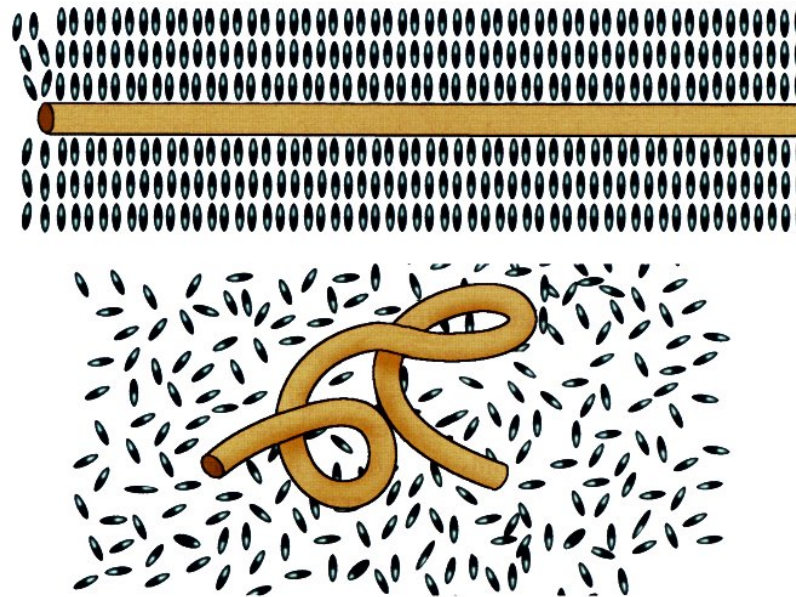
- The classical action potential scenario cannot be correct:
- Removing all sodium and potassium from cells does not eliminate the action potential.
- This can be understood through Biological Transformations.

Cells Gels and the Engines of Life

Gerald H. Pollack

- A phase-transition is when a protein changes its shape or other characteristics. For example, a protein that is rolled in a ball is made to extend to a straight line.

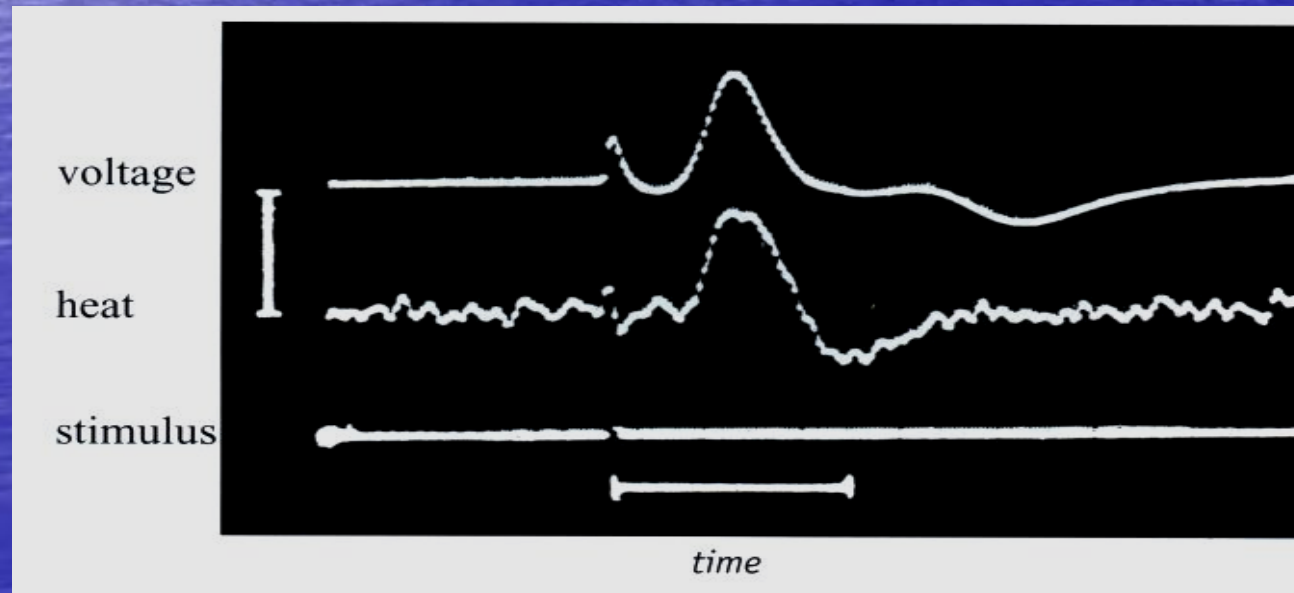
Figure 8.4. Long vs. short configurations. In the long state the polymer is surrounded by structured water. In the short state water is randomly oriented.



Cells Gels and the Engines of Life

Gerald H. Pollack

- The action potential of cells is accompanied by a phase-transition of the peripheral cytoskeleton.
- Coincident with this change is a transient liberation of heat and movement of water inside the cell.

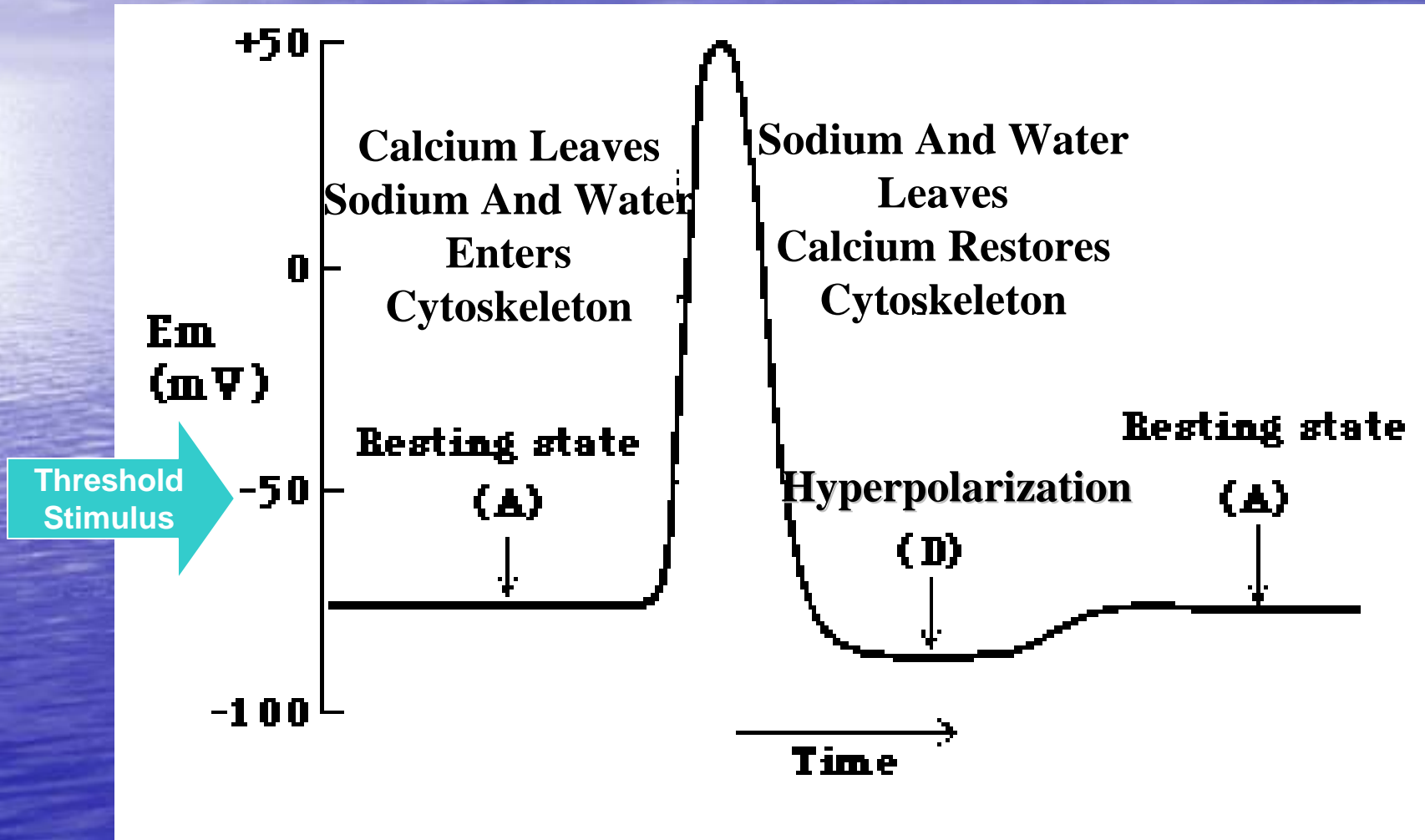


Cells Gels and the Engines of Life

Gerald H. Pollack

- The action potential is created because sodium combines with oxygen to form potassium and stores energy as it enters the cell.
- When potassium exits the cell, it creates hydrogen and calcium with the release of energy (voltage).

Action Potential

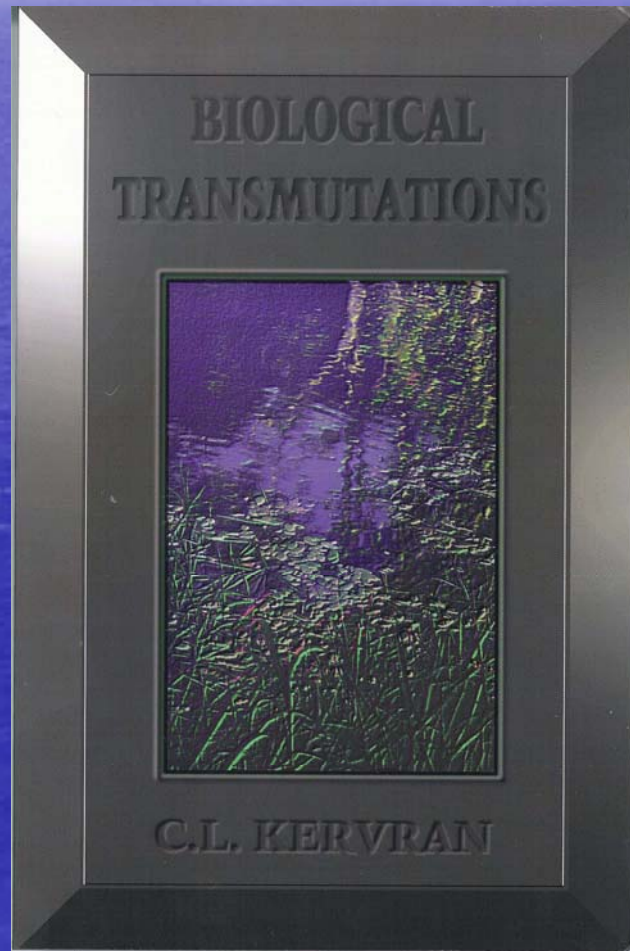


Action Potential

- As potassium exits cell to form hydrogen and calcium, the cell potential goes from -70 mV to +30 mV.
- When cells are injured, there is a constant action potential = area creates Positive Current of Injury.
- Energy for the cell is provided by ATP.
- Mitochondria in the cells produce ATP.
- ATP and the zone surrounding the mitochondria are negatively charged.
- ATP translocates to the cell's proteins.
- The proteins are literally charged with electrons.

Biological Transmutations

by **C. L. Kervran**, **Crosby Lockwood**



Understanding Transmutation of Elements Gives Us a Different Explanation

- When sodium enters the cell, it transmutes with oxygen to become potassium with the release of energy:



- Potassium then transmutes with hydrogen to product calcium which then zips up the protein molecules:



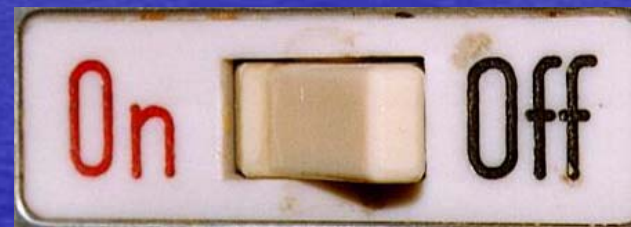


Mineral Pairs Serve as Switches

In the Body, Mineral Pairs Serve to Turn Things Off and On



Muscle Contraction/Relaxation

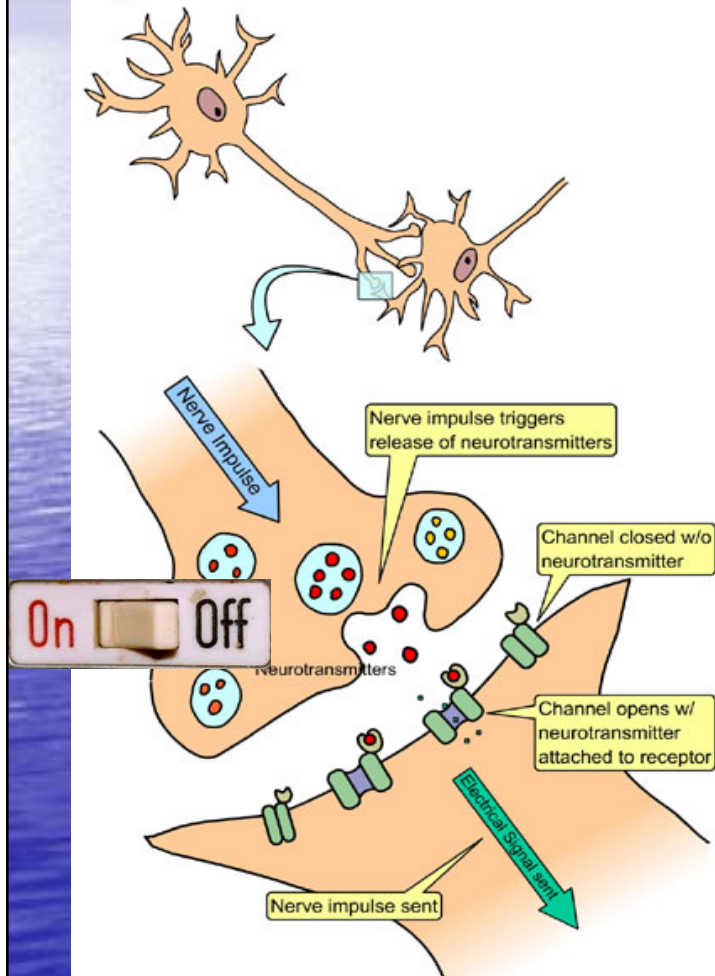


Calcium

Magnesium

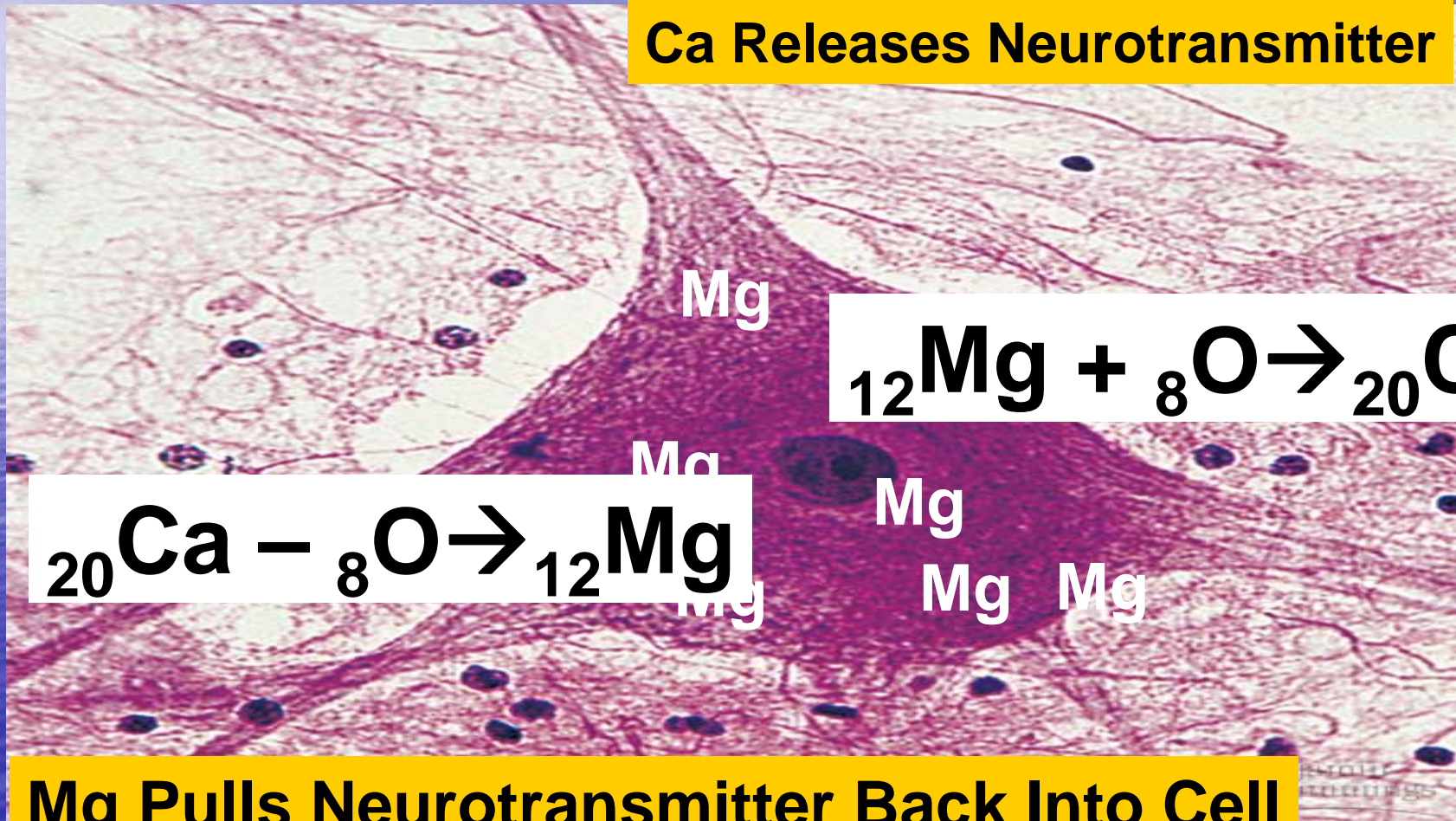
In the Body, Mineral Pairs Serve to Turn Things Off and On

Figure D-2: Neurotransmitters



In Nerves,
Sodium/Potassium control
movement of voltage
down the nerve while
Calcium/ Magnesium
control the release and re-
absorption of
neurochemicals.

Magnesium/Calcium Switch Controls Neurotransmitter Release

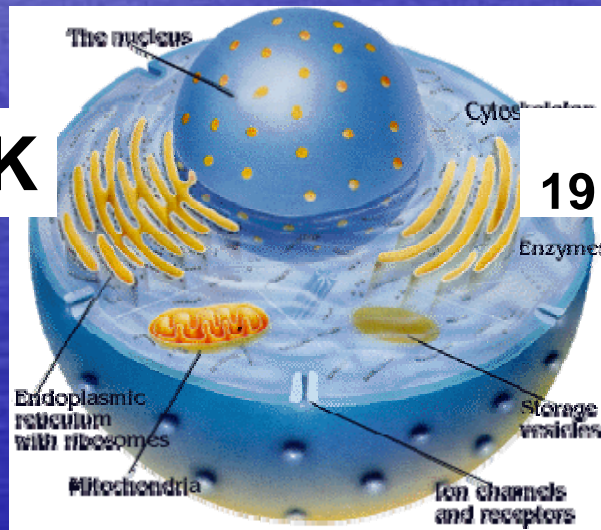


Ca Releases Neurotransmitter



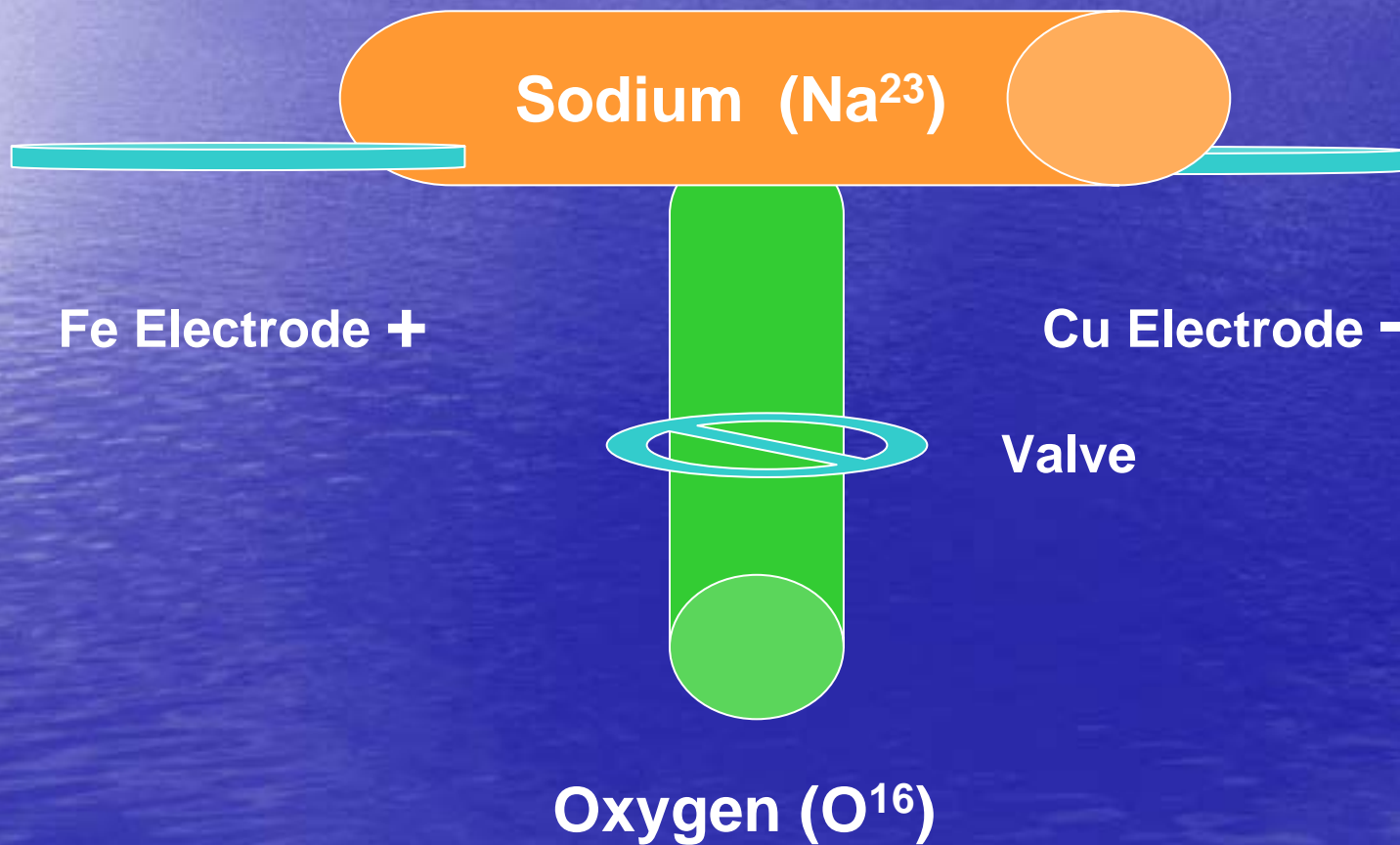
Mg Pulls Neurotransmitter Back Into Cell

Potassium stores energy for Switch Calcium switches action On Magnesium switches action Off



Current passes through tube with pure sodium until it flashes orange in front of a mass spectrometer

DC Current





DC Current

Potassium (K^{39})

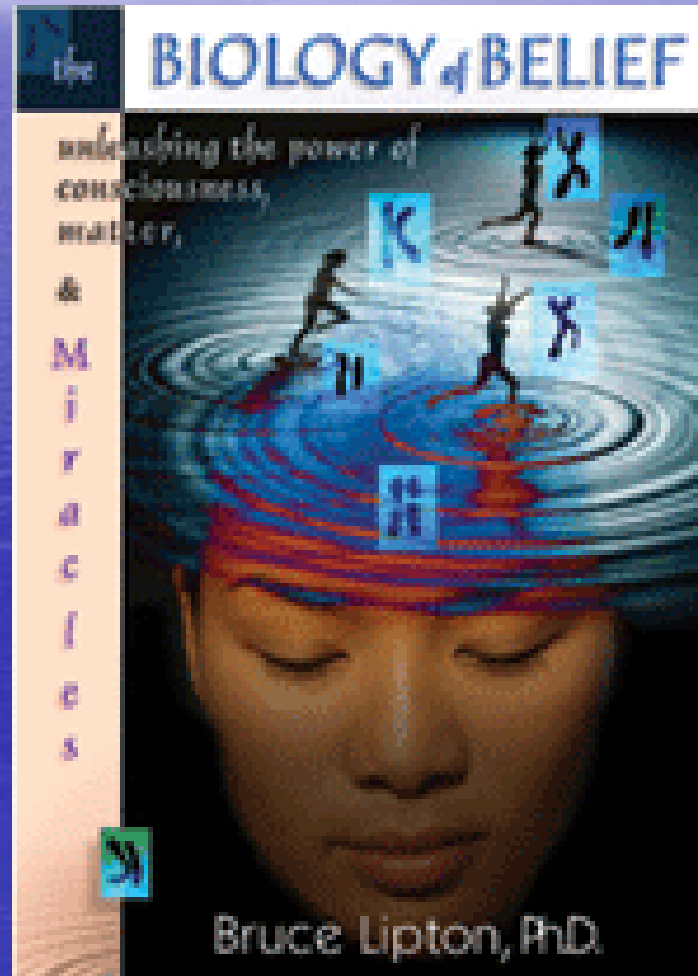
Fe Electrode +

Cu Electrode -

Open Valve To Allow
Oxygen to Enter

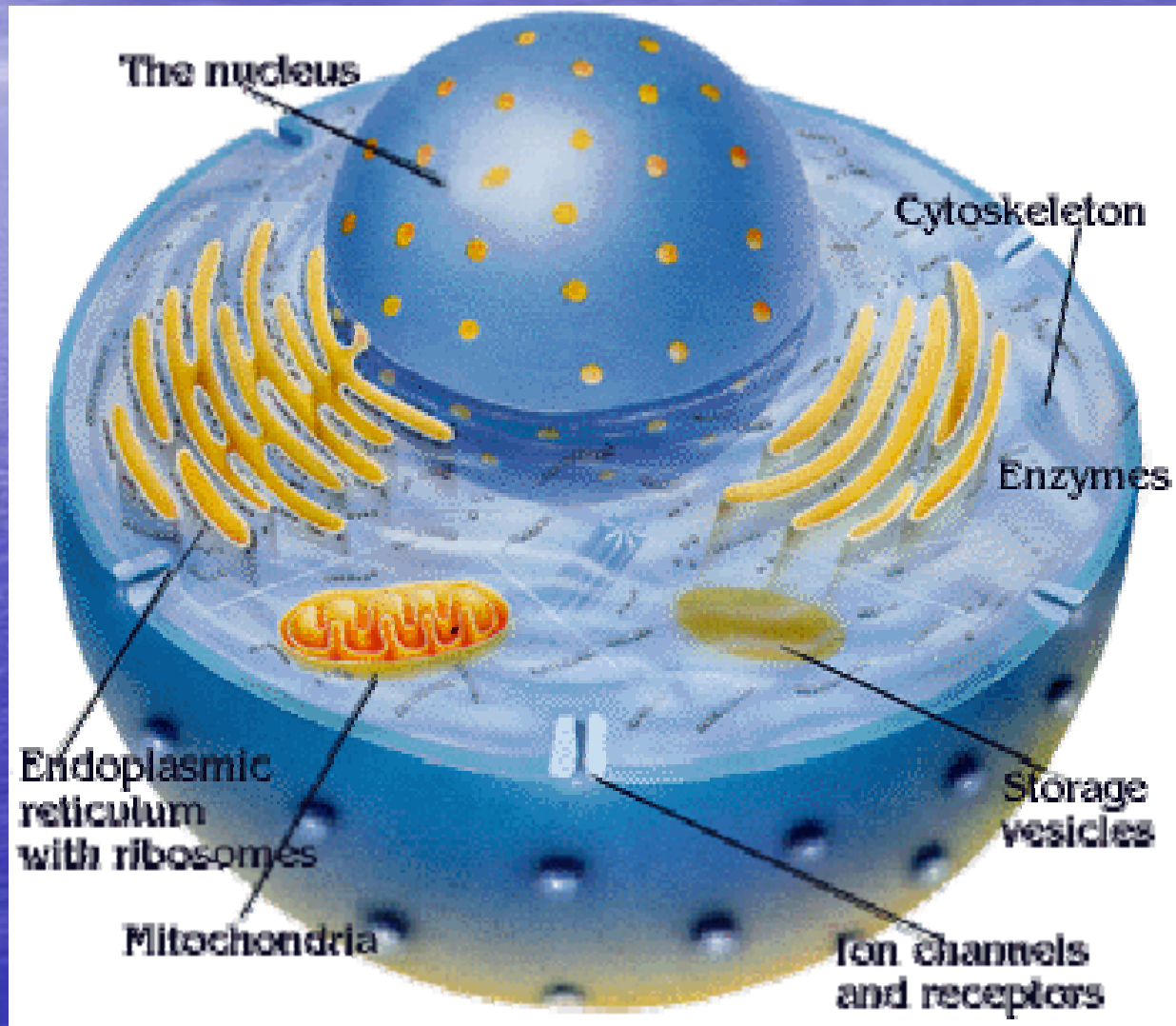
Oxygen (O^{16})

Cellular Function



Biology of Belief

Bruce Lipton, PhD



<http://nobelprize.org/medicine/laureates/1992/illpres/proteins.html>

Biology of Belief

Bruce Lipton, PhD

- The primacy of DNA in influencing and regulating biological behavior and evolution is based upon an unfounded assumption.
- A seminal article by H. F. Nijhout (*BioEssays* >1990, 12 (9):441-446) describes how concepts concerning genetic “controls” and “programs” were originally conceived as metaphors to help define and direct avenues of research.

Biology of Belief

Bruce Lipton, PhD

- Experimentally *enucleated* cells may survive for two or more months without genes, and yet are capable of effecting complex responses to environmental and cytoplasmic stimuli (Lipton, et al., Differentiation 1991, 46:117-133). Logic reveals that the nucleus *can not* be the brain of the cell!

Biology of Belief

Bruce Lipton, PhD

- Widespread repetition of this compelling hypothesis over fifty years has resulted in the “metaphor of the model” becoming the “truth of the mechanism,” in spite of the absence of substantiative supporting evidence.
- Since the assumption emphasizes the genetic program as the “top rung” on the biological control ladder, genes have acquired the status of causal agents in eliciting biological expression and behavior (e.g., genes causing cancer, alcoholism, even criminality).

Biology of Belief

Bruce Lipton, PhD

- The *Human Genome Project* was a global effort dedicated to deciphering the human genetic code. It was thought the completed human blueprint would provide science with all the necessary information to “cure” all of mankind's ills. It was further assumed that an awareness of the human genetic code mechanism would enable scientists to create a Mozart or another Einstein.

Biology of Belief

Bruce Lipton, PhD

- The “failure” of the genome results to conform to our expectations reveals that our expectations of how biology “works” are clearly based upon incorrect assumptions or information. Our “belief” in the concept of genetic determinism is fundamentally...flawed!
- We can not truly attribute the character of our lives to be the consequence of genetic “programming.” The genome results force us to reconsider the question: “From whence do we acquire our biological complexity?”

Biology of Belief

Bruce Lipton, PhD

- Scientists have continuously touted that our biological fates are written in our genes. In the face of that belief, the Universe humors us with a cosmic joke: The “control” of life is not in the genes. Of course the most interesting consequence of the project's results is that we must now face that “challenge for the future” Baltimore alluded to. What does “control” our biology, if not the genes?

Biology of Belief

Bruce Lipton, PhD

- Emerging at the cutting edge of cell science is the recognition that the environment, and more specifically, our *perception* of the environment, directly controls our behavior and gene activity.
- The molecular mechanisms by which animals, from single cells to humans, respond to environmental stimuli and activate appropriate physiological and behavioral responses have recently been identified.

Biology of Belief

Bruce Lipton, PhD

- Cells utilize these mechanisms in order to dynamically “adapt” their structure and function to accommodate ever-changing **environmental** demands.
- The process of adaptation is mediated by the cell membrane (the skin of the cell), which serves as the equivalent of the cell's “brain.”

Biology of Belief

Bruce Lipton, PhD



Significant movements in time when belief systems changes:

- A cell's life is controlled by the physical and energetic environment and not by its genes
- Genes are simply blueprints used in the construction of cells, tissues and organs.
- The environment serves as the contractor that reads the genes and the environment and is responsible for the cells' life.

Biology of Belief

Bruce Lipton, PhD

- It is the single cells awareness of the environment , not his genes, that sets into motions the events of life.
- With this insight, I realized that I could change the character of my life by changing my beliefs.
- The idea that we are frail biochemical machines controlled by genes is giving way to an understanding that we are powerful creators of our lives and the world in which we live.

Biology of Belief

Bruce Lipton, PhD

- The results of the Genome project reveal that there are only about 34,000 genes in the human genome. Two thirds of the anticipated genes do not exist!
- How can we account for the complexity of a genetically-controlled human when there are not even enough genes to code just for the proteins?

Biology of Belief

Bruce Lipton, PhD

- Obviously, the complexity of organisms is not reflected in the complexity of its genes.
- For example the fruit fly genome was recently defined to consist of 13,000 genes.
 - The eye of the fruit fly is comprised of more cells than are found in the entire *Caenorhabditis* worm.
 - Profoundly more complex in structure and behavior than the microscopic roundworm, the fruit fly has 5,000 fewer genes!!

Biology of Belief

Bruce Lipton, PhD

In machines, gears move in ways to get specific work done.

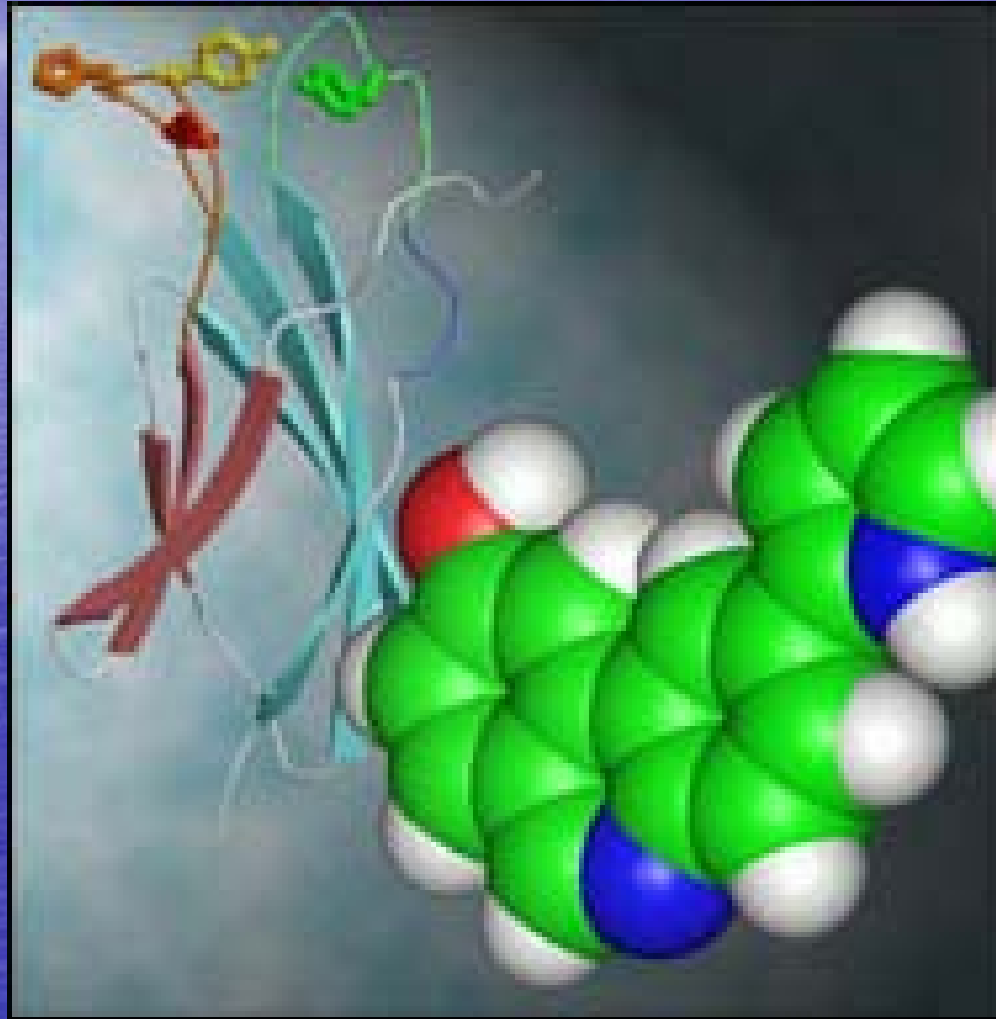


Proteins are Gears

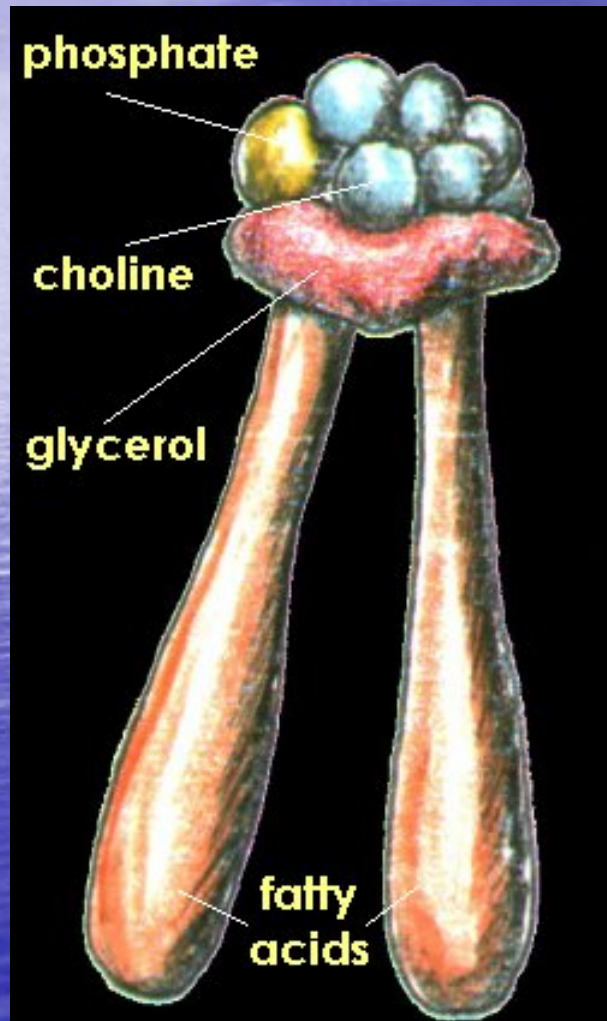
- In cells, proteins act as gears.
- There are about 200,000 proteins.
- These proteins are amino acids in different sequences.

Biology of Belief

Bruce Lipton, PhD



Membrane Bilipid Layer



In the formation of a bilipid layer the tails of the phospholipids orient towards each other creating a hydrophobic environment within the membrane. This leaves the charged phosphate groups facing out into the hydrophilic environment.

Cell Membrane Permeability and Fats

- Another way for the cell to control the fluidity of its membrane is to regulate the ratio of saturated to unsaturated hydrocarbon chains of the phospholipids.
- Saturated hydrocarbons are straight-chains (“saturated” with hydrogens), and unsaturated hydrocarbons have one or more double bonds (not “saturated” with hydrogens).

Cell Membrane Permeability

- A group of phospholipids with saturated hydrocarbon chains can pack close together and form numerous Van der Waals bonds that hold the phospholipids to each other.
- Phospholipids with unsaturated hydrocarbon side chains break up those Van der Waals bonds and the tight packing by preventing the phospholipids from getting close together.

Cell Membrane Permeability

- The proper ratio of fats is 4:1 Omega 6:Omega 3. (S. Yehuda)
- Sterols (Omega 6) make the membrane stiff and Fatty Acids (Omega 3) make it more fluid.
- One can estimate the cell membrane stiffness/fluidity with urine Surface Tension.

Biology of Belief

Bruce Lipton, PhD

- The cell membrane is a structural and functional homologue (equivalent) of a computer chip, while the nucleus represents a read-write hard disk loaded with genetic programs.
- Our new scientific knowledge is returning to an ancient awareness of the power of belief. Beliefs are indeed powerful...whether they are true or false.

Biology of Belief

Bruce Lipton, PhD

- While we have always heard of the “power of positive thinking,” the problem is **negative** thinking is just as powerful, though in the “opposite” direction.
- Problems encountered in health and in the unfolding of our lives are generally connected to the “misperceptions” acquired in our learning experiences.

Biology of Belief

Bruce Lipton, PhD

- The wonderful part of the story is that perceptions can be *relearned!* We can reshape our lives in retraining our consciousness.
- This is a reflection of the ageless wisdom that has been passed down to us and is now being recognized in cellular biology.

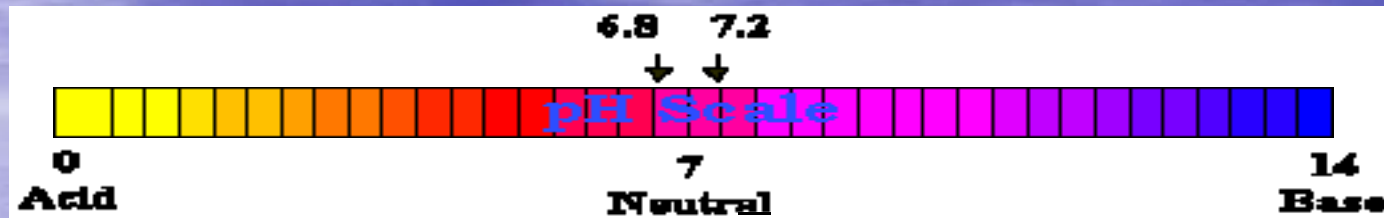
Cell Membrane

- Membrane is cell's "brain".
- Membrane acts with minerals to create switches.
- Membrane is a capacitor that stores voltage.
- Membrane's fats control permeability.
- Membrane's fats vibrate and sense environment.

Tissue Biopsy

- Only one percent of minerals in the body are in the blood.
- To find the levels of minerals in the system, one can do a tissue biopsy. The easiest tissue to biopsy is hair.
- By identifying which minerals are deficient, we can know which switches aren't working and why.

Measurement of pH



- To measure pH one can use any number of readily available pH probes. A pH probe acts like a battery that proportionately generates positive DC voltage for low pH, nothing for pH 7, and negative voltages for high pH values.
- So, all we have to do is measure this voltage and convert it to pH units.

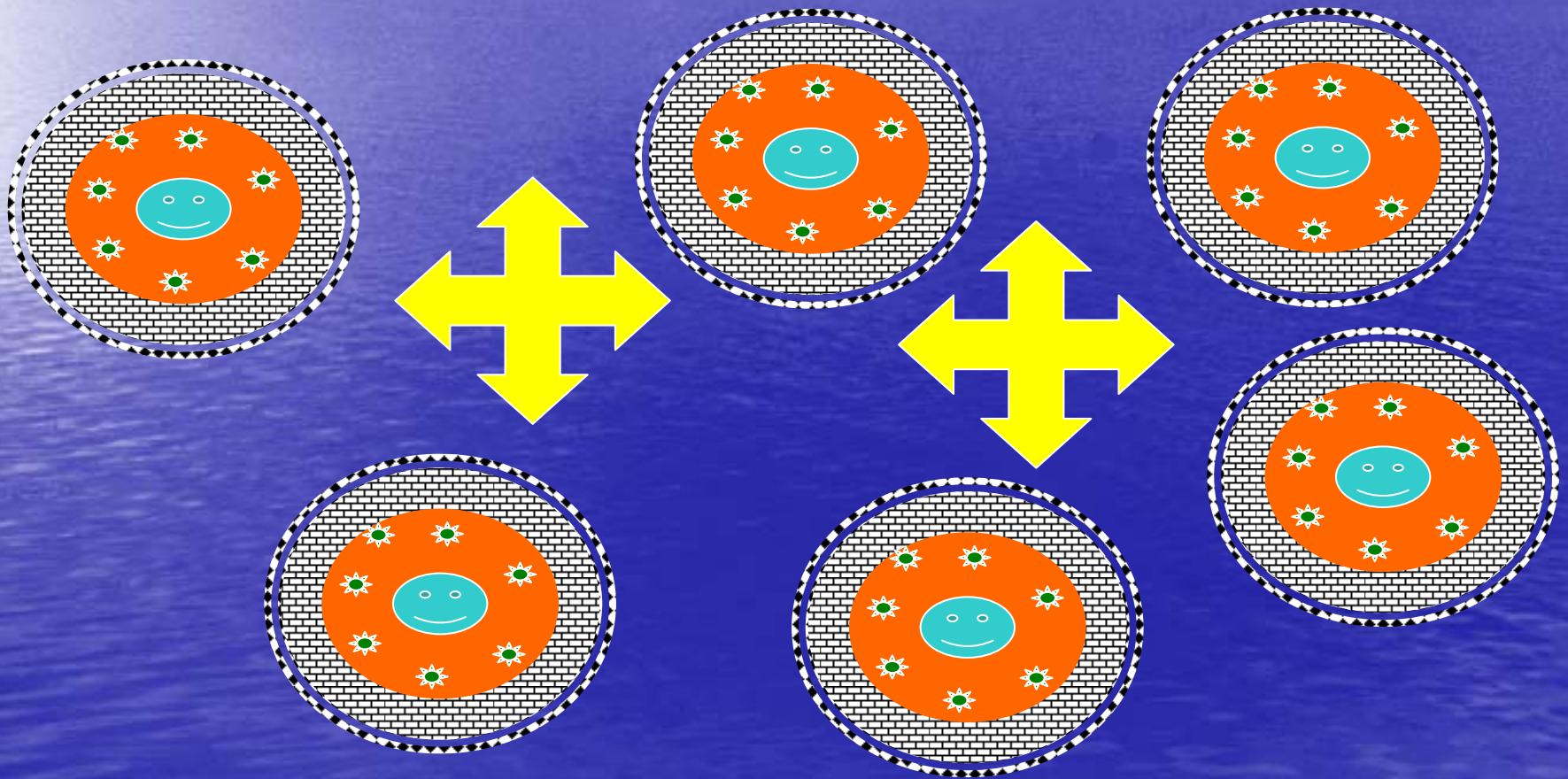
Body pH

- pH is an electronic term
 - pH 7-14 is electron donor
 - pH 0-7 is electron stealer
- Body is 75% water
 - Water pH = 14 = -400 mV
 - Water pH = 7 = 0 mV
 - Water pH = 0 = +400 mV
- Body operates at \sim pH = 7.2 = -22 mV,
- Cancer = -5mV to +5 mV.

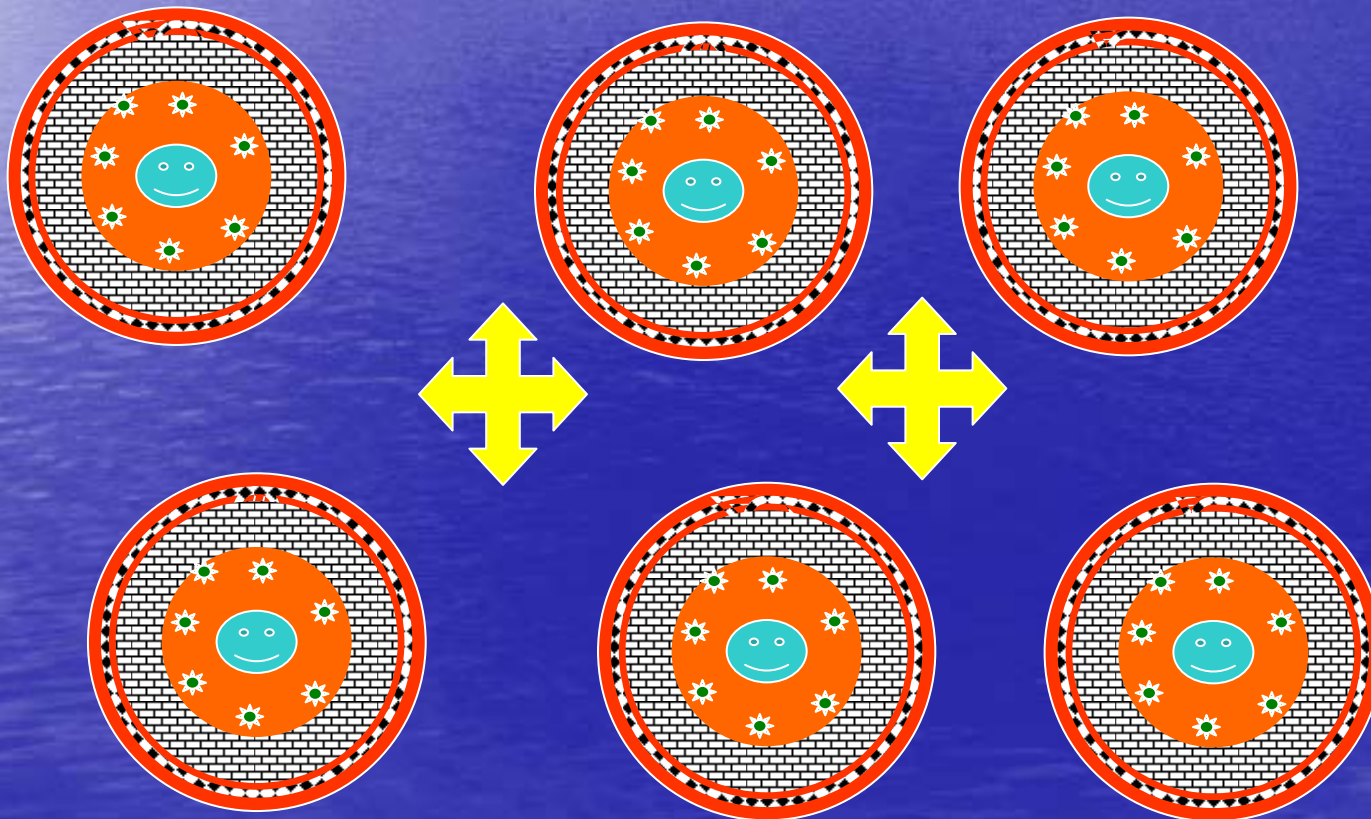
The cluster of ions around -3.00 (Na, K, Mg, Ca) control the nervous system can roam easily. The more positive the ions, the more damage they can cause. Note: the most damaging ions are the ones we put into our drinking water = why we shouldn't drink tap water.

| Ion | Volts |
|------------|--------------|
| Fluoride | +2.85 |
| Peroxide | +1.77 |
| Chloride | +1.36 |
| Ferric | +0.76 |
| Copper + | +0.52 |
| Copper ++ | +0.34 |
| Hydrogen | 0 |
| Chromium | -0.41 |
| Ferrous | -0.44 |
| Zinc | -0.76 |
| Aluminum | -2.23 |
| Magnesium | -2.71 |
| Sodium | -2.87 |
| Calcium | -2.89 |
| Barium | -2.92 |
| Potassium | -2.99 |

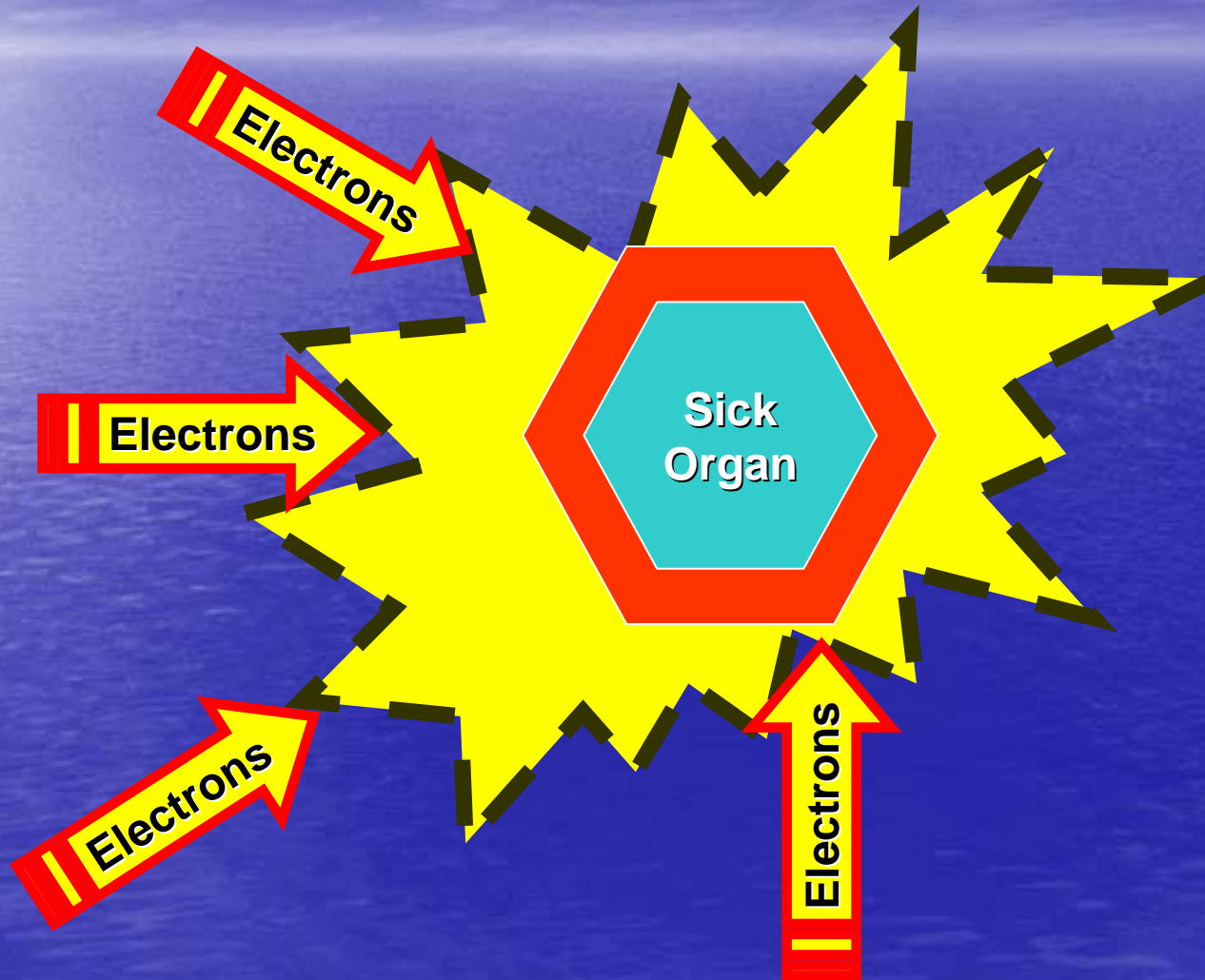
Electrons are Shared From Cell to Cell to Maintain Function of Organs/Systems



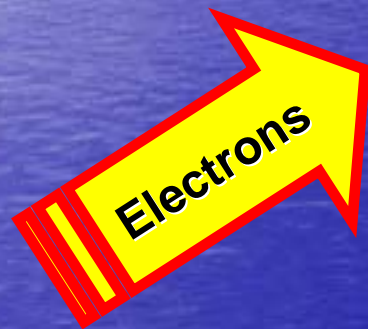
As Cells Begin to Swell When They Become Sick, Resistance to the Flow of Electrons Increases (Increased Impedance)



Increased Impedance Around Sick Organ



Very Little Impedance Around Degenerative Organs



**Few Electrons
Available**

Ohm's Law

Voltage (Electric potential or storage) = Impedance (resistance; Ohms) times Amperage (flow of electrons).

Voltage = Resistance x Amps

Example: Your 12 volt car has a radio that uses one amp of current. What is the resistance of the radio?

12 volts = Resistance X 1 amp

Resistance = $12/1 = 12$ ohms

Resistance x Amps = Voltage

As cells swell, resistance to flow of electrons increases. In order to keep flow of electrons normal (amps), the voltage increases. (positive Current-of-injury; hyperactivity).



Resistance x Constant Amps =



Voltage

Resistance x Amps = Voltage

As cells continue to swell, there is eventually an increase in resistance that cannot be compensated by increasing to the cell's maximum voltage. Current (flow of electrons, amps) will then decrease.

 Resistance x  Amps =  **Maximum** Volts

Resistance x Amps = Voltage

If the cell cannot restore its voltage (electrons in the membrane) and its amperage (flow of current into the cytoplasm), the cell cannot maintain its function and degeneration (negative current-of-injury, hypo-activity) begins. A combination of decreased voltage and amperage is always a sign of impending cell degeneration/death.



Resistance x



Amps =



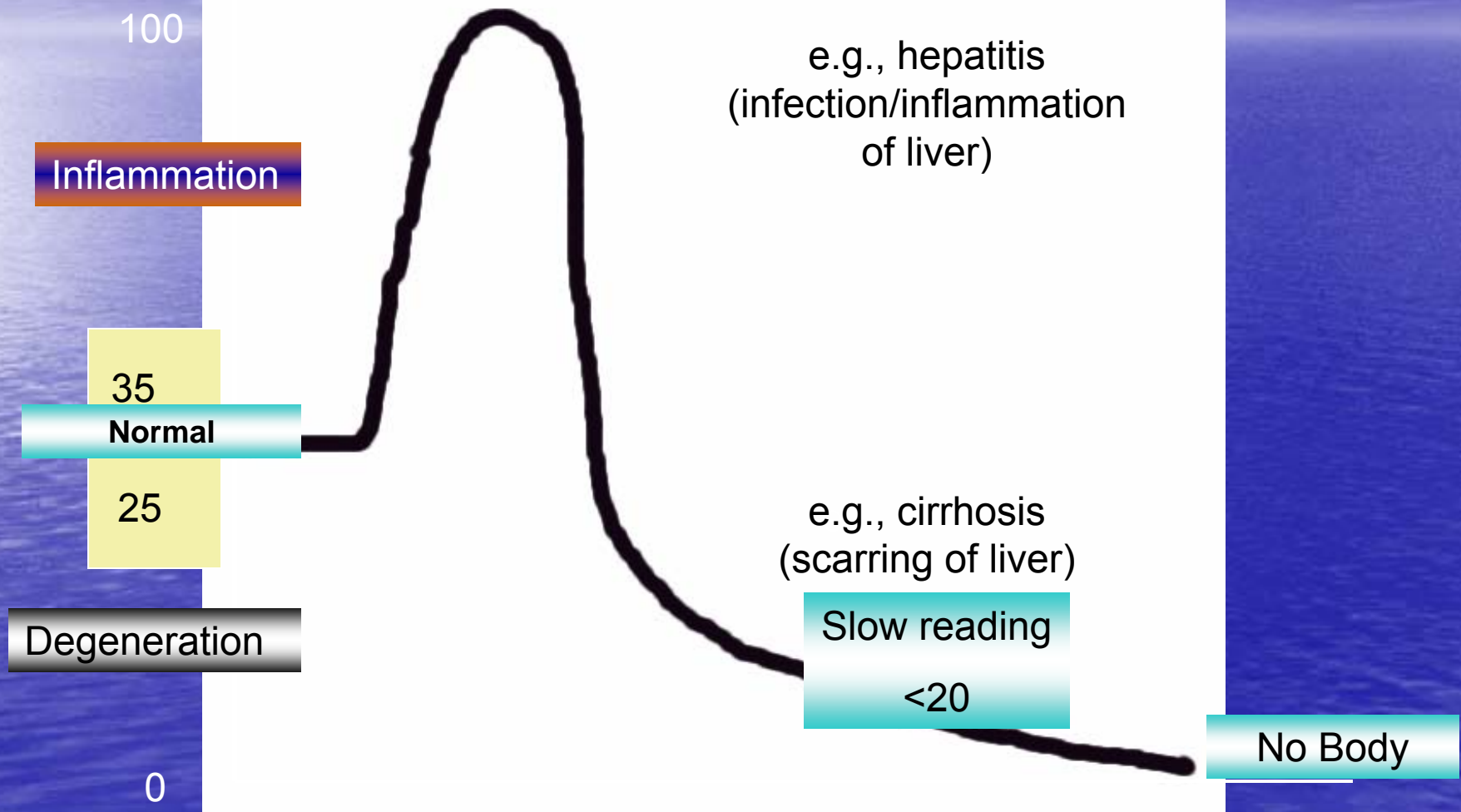
Volts

Resistance x Amps = Voltage

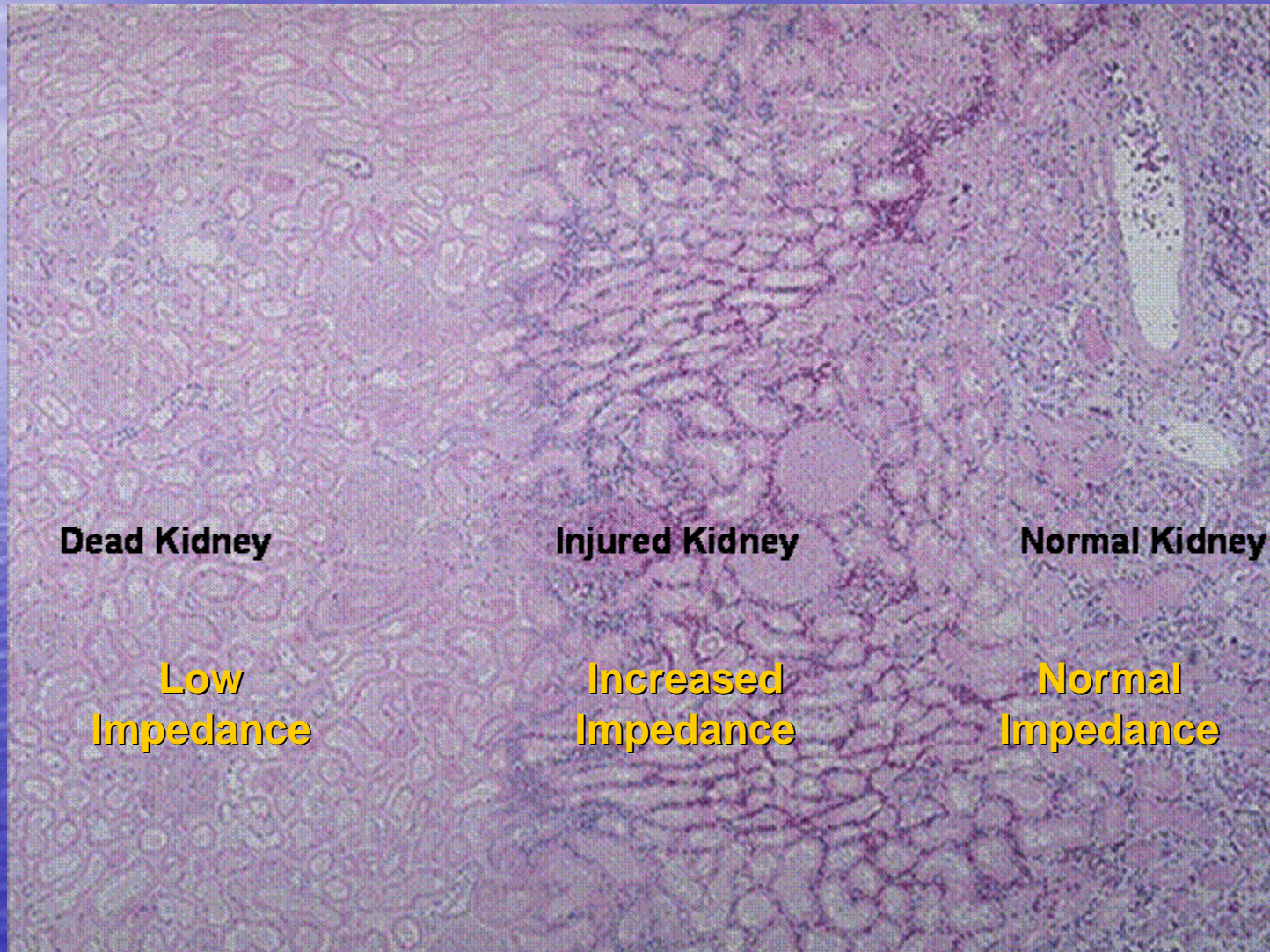
As cells become degenerative and fibrotic, their resistance (impedance) also decreases. The voltage and amperage have already diminished. The ability to measure the electronics of the cell is also diminished.

 Resistance x  Amps =  Volts

Impedance (Resistance to Flow of Electrons) Of Advancing Disease



Impedance



Constantine Hering

1800-1880



CONSTANTINE HERING

Hering's Law

1. The symptoms usually disappear in the reverse order of their appearance-the most recent symptom disappears first; then an earlier symptom re manifests only to abate when the voltage is restored. This process continues until all the unresolved disease conditions are eliminated, even though some may go back to early childhood. This procedure is called the **Reverse Progression of Symptoms**. This procedure of symptom regression is to be expected when most natural methods of therapy are used to overcome chronic ailments.

Hering's Law

1. The symptoms usually disappear in the reverse order of their appearance-the most recent symptom disappears first; then an earlier symptom re manifests only to abate when the voltage is restored. This process continues until all the unresolved disease conditions are eliminated, even though some may go back to early childhood. This procedure is called the **Reverse Progression of Symptoms**. This procedure of symptom regression is to be expected when most natural methods of therapy are used to overcome chronic ailments.

Hering's Law

2. Hering's second law states that the symptoms tend to move from the more vital organs to the less vital organs and from the interior of the body toward the periphery or skin. This law functions because of the body's attempt to preserve itself. **If a disease that produces morbid matter can't be eliminated, the body tries to deposit the residues of this condition in as harmless an area as possible.** The skin is one of the safest, but the body also frequently uses the various connective tissues and joints for this purpose.

Hering's Law

2. (Cont') Only when the disease process is overpowering does the body allow it to invade the vital organs, and even then the body makes every possible attempt to keep the disease processes out of the heart and brain. When a patient comes to us with disorders of the vital organs, we know the vital force (voltage) is weak or these areas wouldn't be affected and therefore the cure will be prolonged. Under treatment, the symptoms will subside and recede from the more vital areas to the less vital areas, and the symptoms may even end with a healing reaction on the best eliminator of all-the skin.

Hering's Law

3. Hering's third rule states that the **symptoms move from the top of the body downward, disappearing first from the head, then from the thigh to the knee, ankle, and foot.** We frequently encounter this last pattern, wherein the pain will go from the abdomen into the hip, then thigh, then knee and then in and out the foot. These patients often comment: "You know, Doctor, I'm sure when it gets down to the foot, it will just go out the toes and be gone." They usually are correct.

Hering's Law

3. (Cont') The functioning of the third law is based on a principle similar to the second. Because the more vital areas are found in the head and upper portion of the body and those of less importance are encountered toward the extremities, the third law is a symptomatic extension of the second law. Its nature is important to the physician but not particularly to the patient.

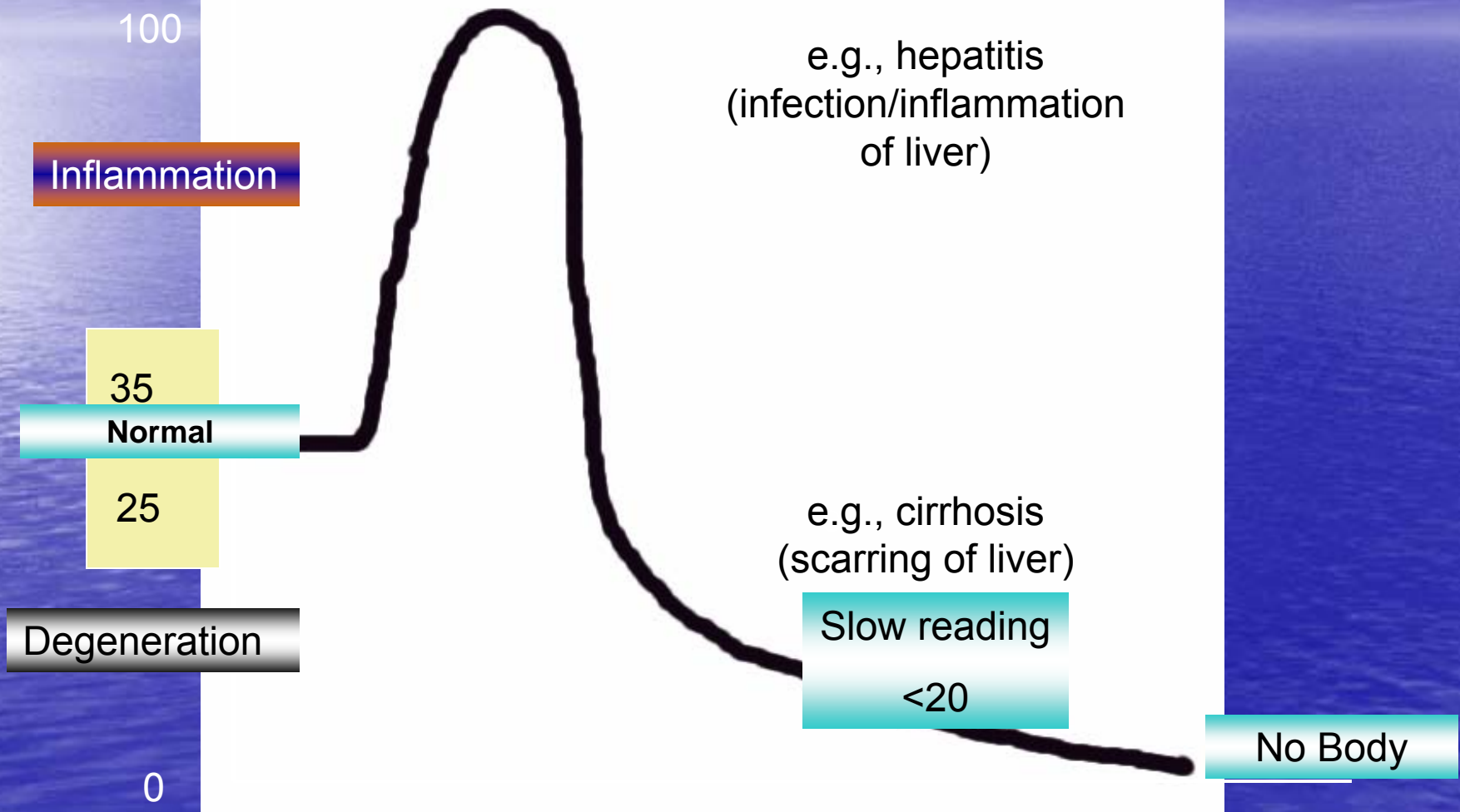
Summary of Hering's Law of Cure



CONSTANTINE HERING

Hering's Law of Cure tells us that we heal from the head down, from inside out and in reverse order as symptoms have appeared. This is the basis of all healing and we may have to get worse before we get better. If we are to heal the body of whatever disease it has, we must first believe we can heal. Then we must cleanse out the impurities and not suppress any discharge. 219

Impedance (Resistance to Flow of Electrons) Of Advancing Disease





Wiring Diagram of the Human Body

Energetic Medicine Concepts

- In buildings, we use copper wire to carry electricity because copper has a low resistance (impedance) to the flow of electrons.
- In the human body, the tissue with the lowest resistance to the flow of electrons is fibrous tissue.
- The fibrous systems are the acupuncture meridians (fascial planes/capsules) and the perineural nervous system.

Helene M. Langevin, MD

Research Assistant Professor of Neurology



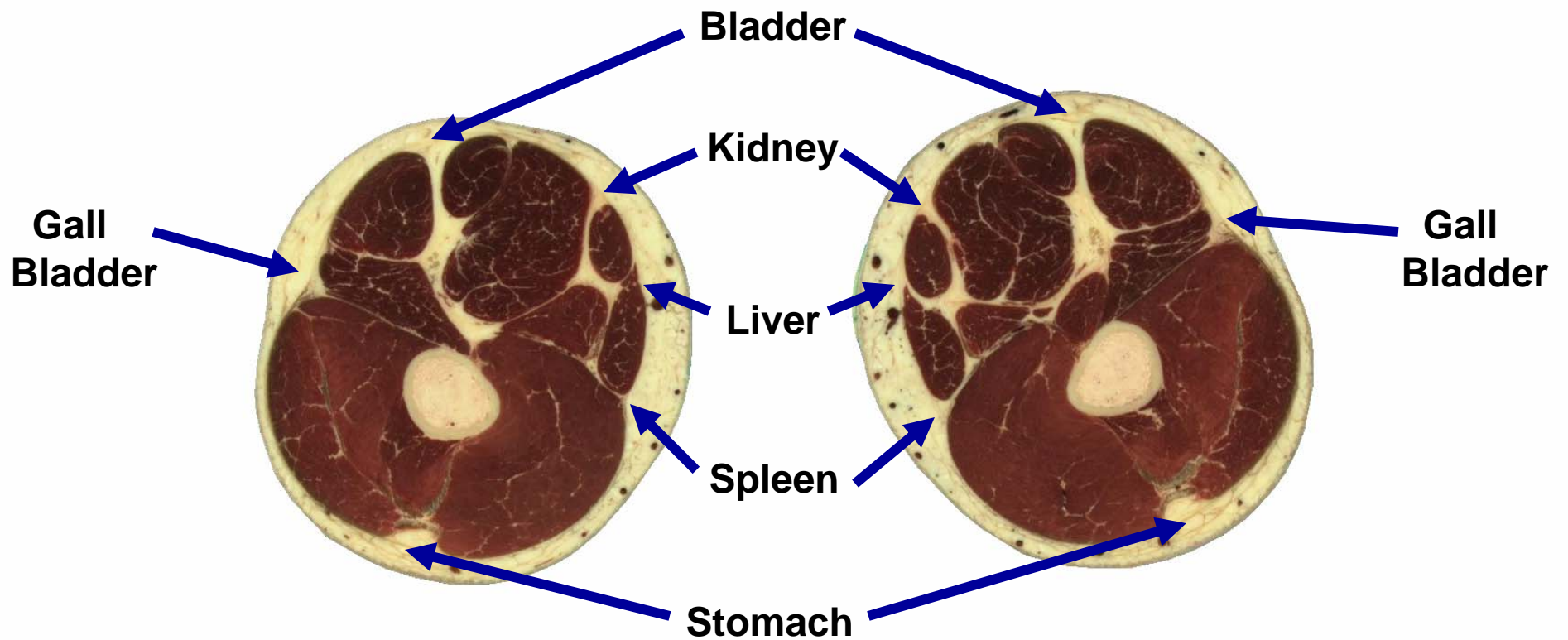
Acupuncture Meridians are the Fascial Planes of the Body

- *The Anatomical Record*, Volume 269, Issue 6, 2002, pp. 257-265.
Relationship of acupuncture points and meridians to connective tissue planes. Helene M. Langevin,* Jason A. Yandow.
- Acupuncture meridians traditionally are believed to constitute channels connecting the surface of the body to internal organs. We hypothesize that the network of acupuncture points and meridians can be viewed as a representation of the network formed by interstitial connective tissue.
- This hypothesis is supported by ultrasound images showing connective tissue cleavage planes at acupuncture points in normal human subjects. To test this hypothesis, we mapped acupuncture points in serial gross anatomical sections through the human arm.

Acupuncture Meridians are the Fascial Planes of the Body

- We found an 80% correspondence between the sites of acupuncture points and the location of inter-muscular or intra-muscular connective tissue planes in postmortem tissue sections.
- We propose that the anatomical relationship of acupuncture points and meridians to connective tissue planes is relevant to acupuncture's mechanism of action and suggests a potentially important integrative role for interstitial connective tissue.

Legs (Reflect Abdominal Organs)

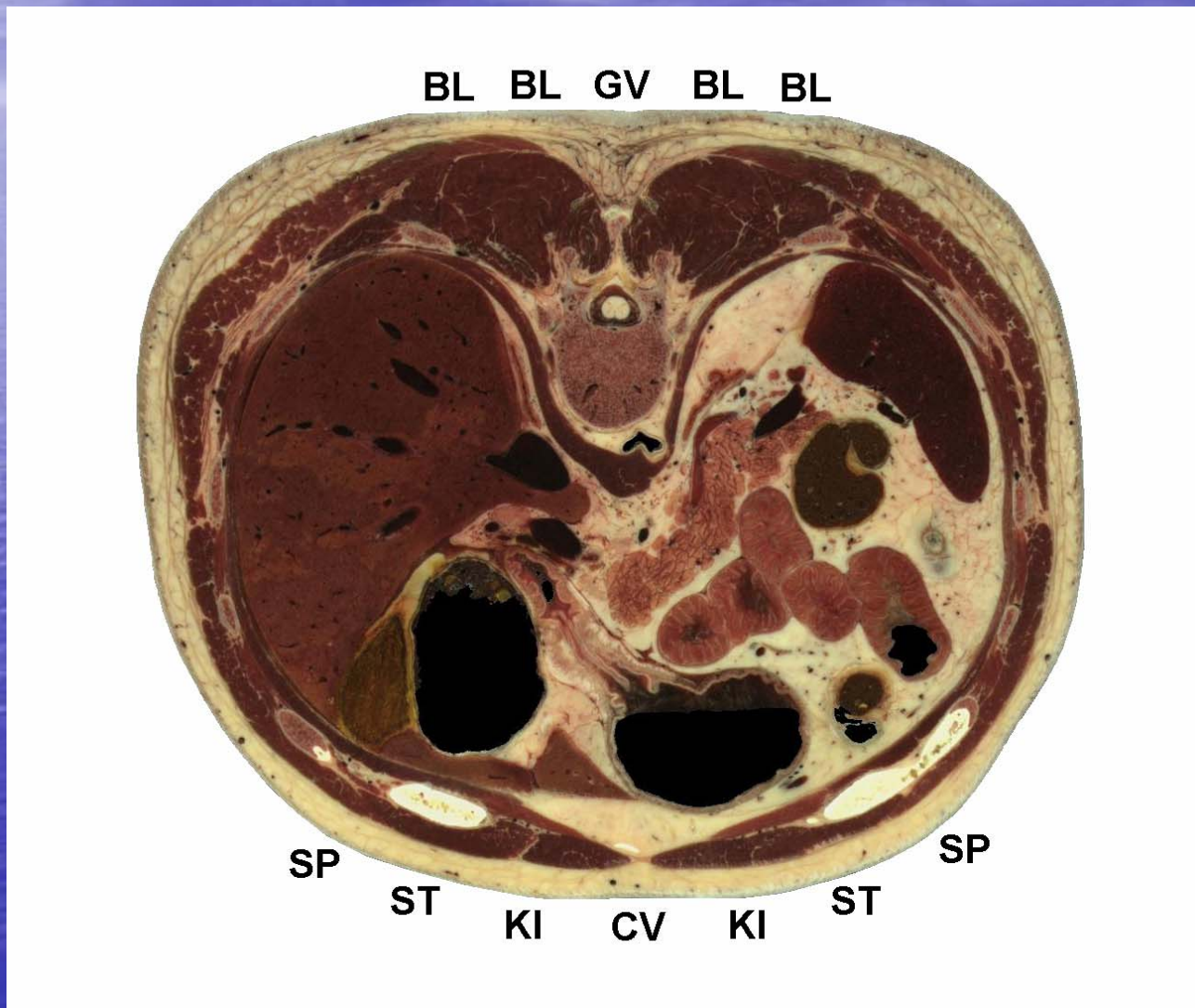


The Anatomical Record
Helene M. Langevin;
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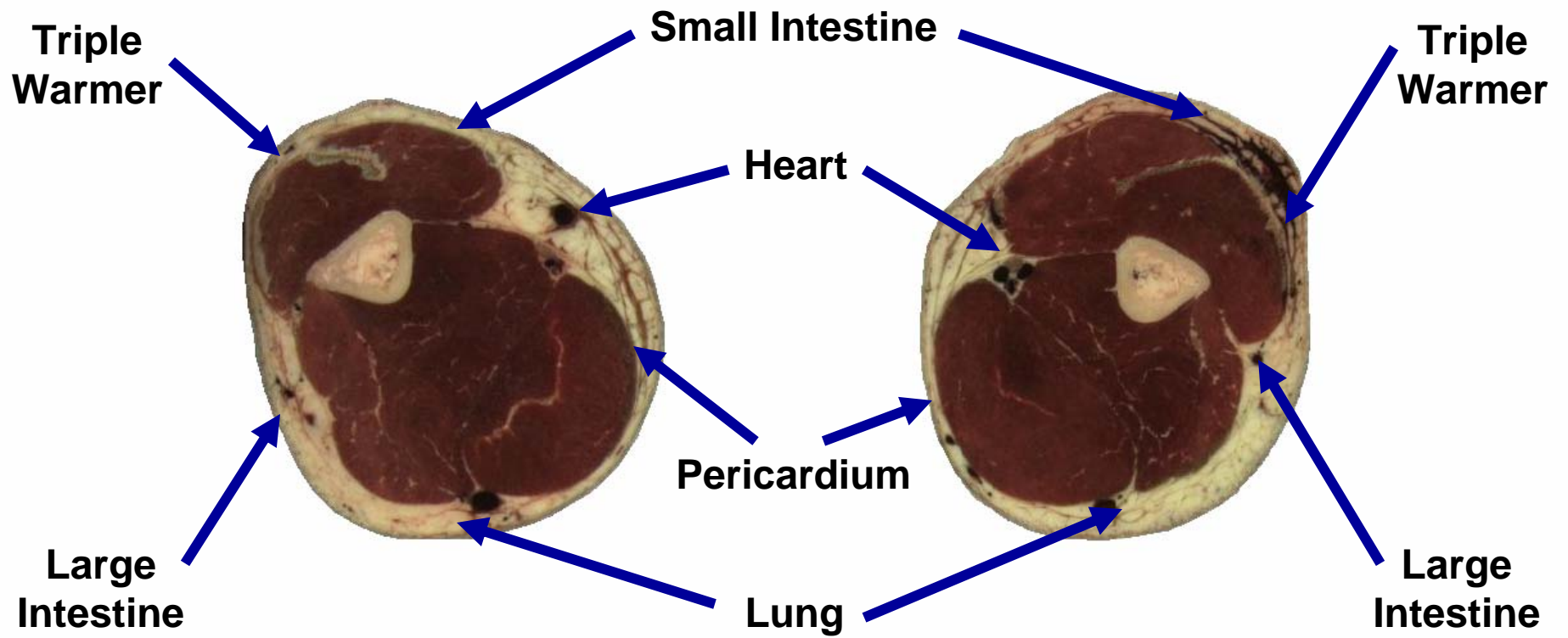
Anterior (front of the body)

<http://www3.interscience.wiley.com/cgi-bin/abstract/101521787/START>

Thorax

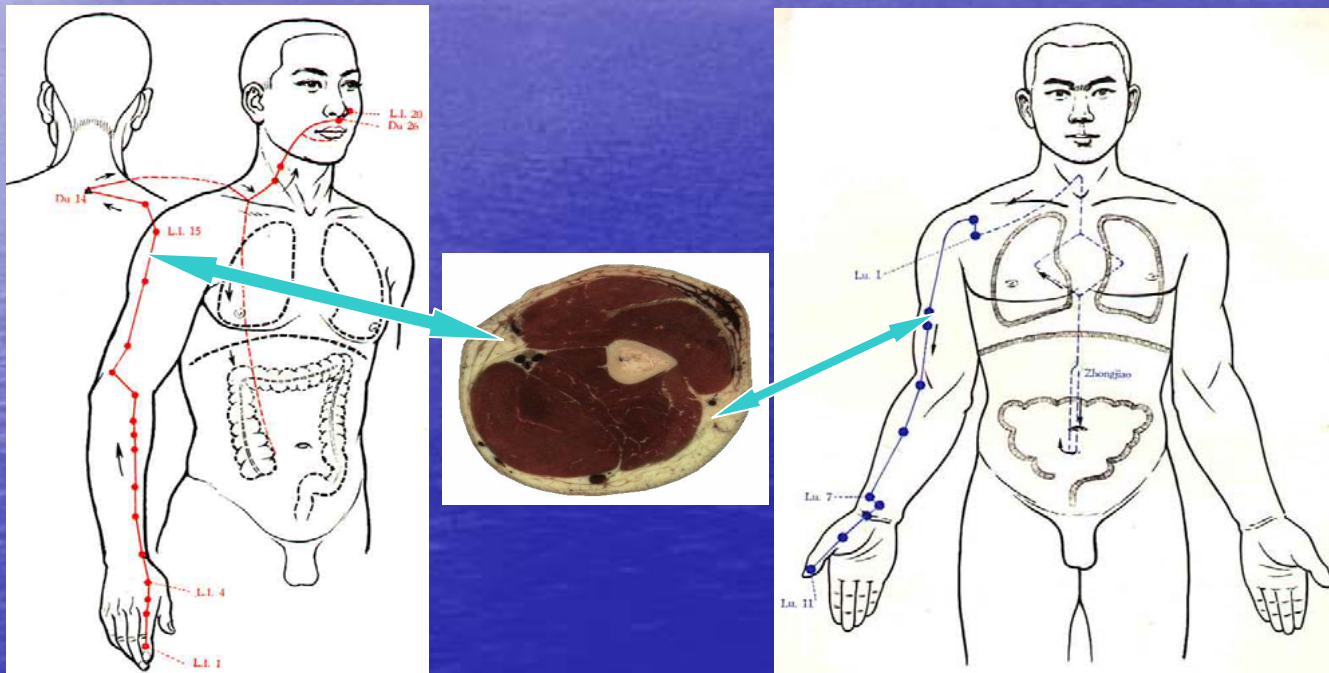


Arms

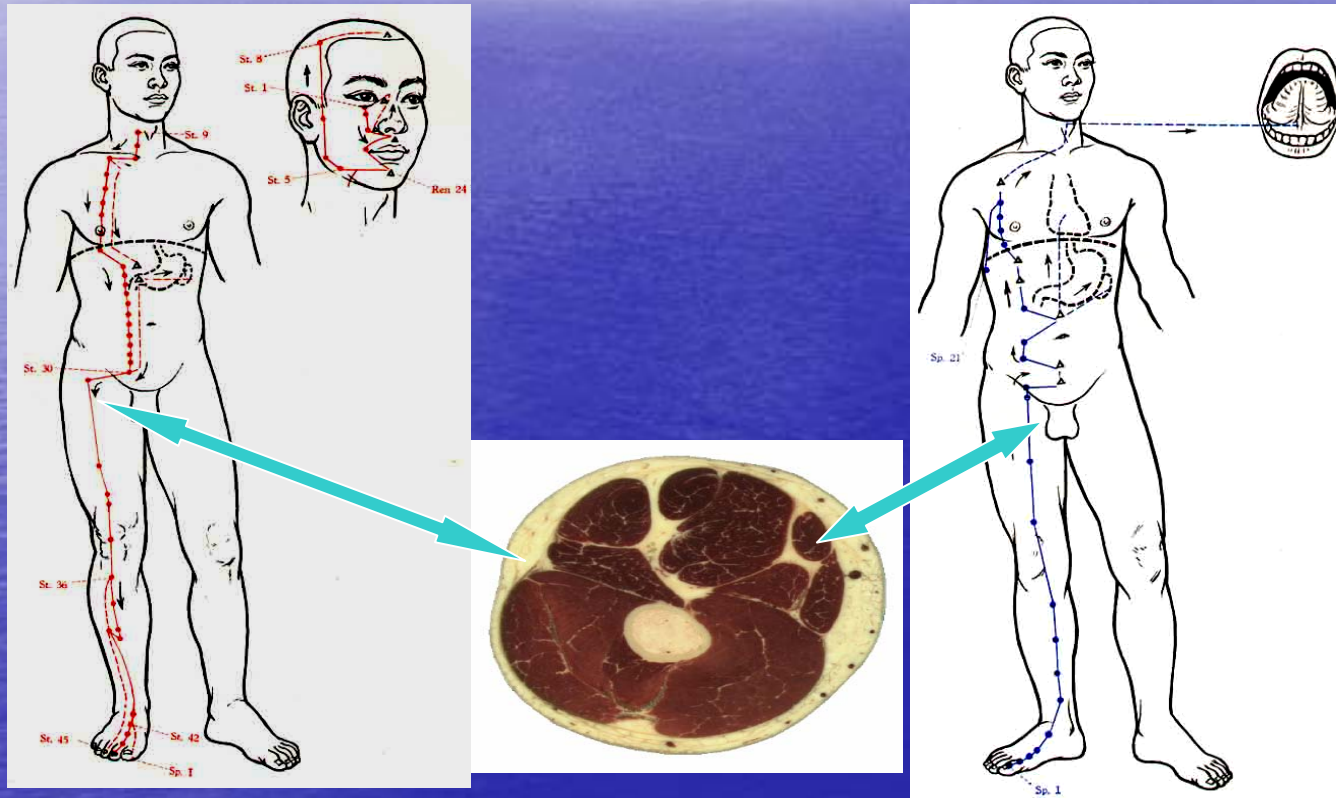


Anterior (front of the body)

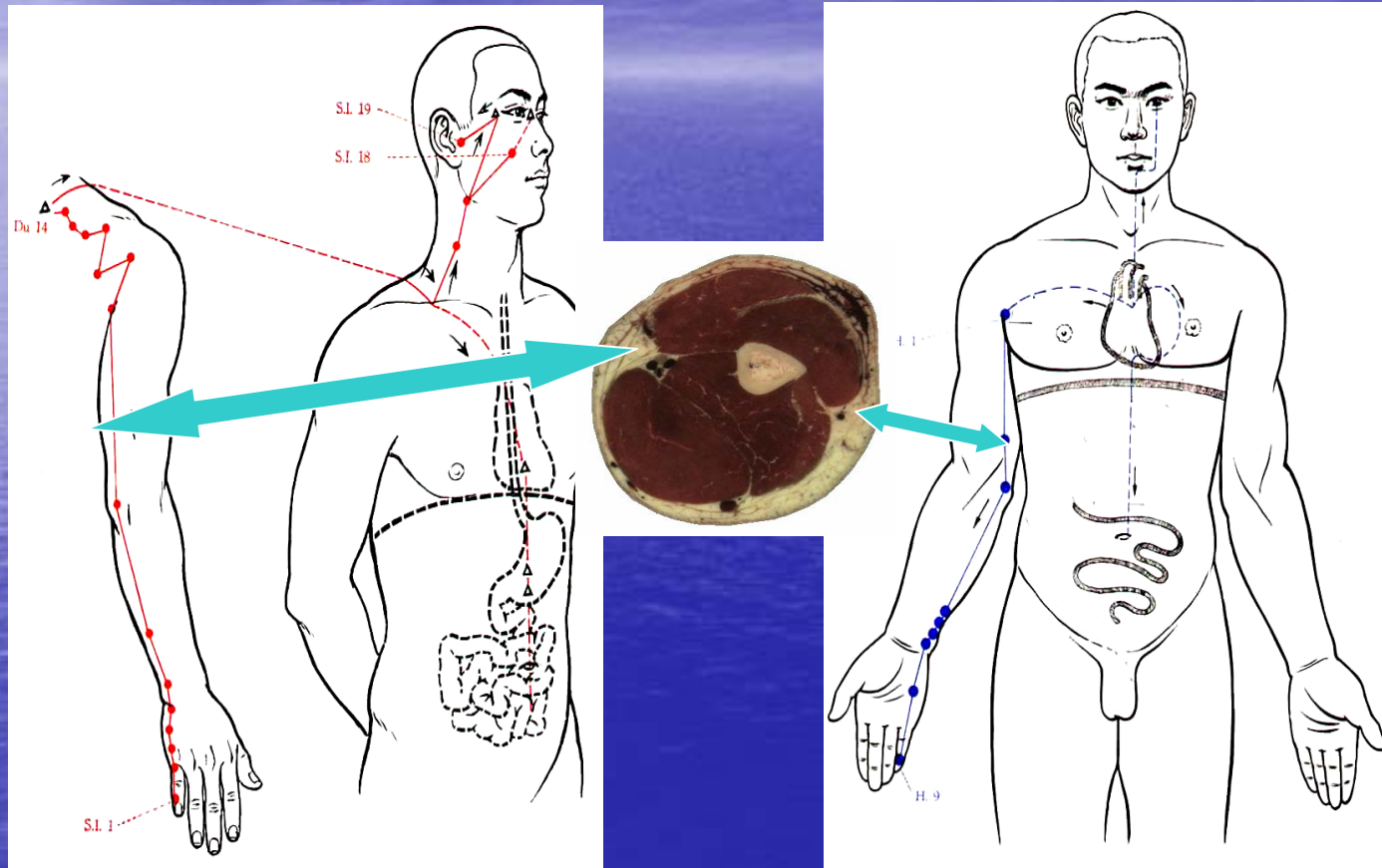
Lung and Large Intestine Meridians



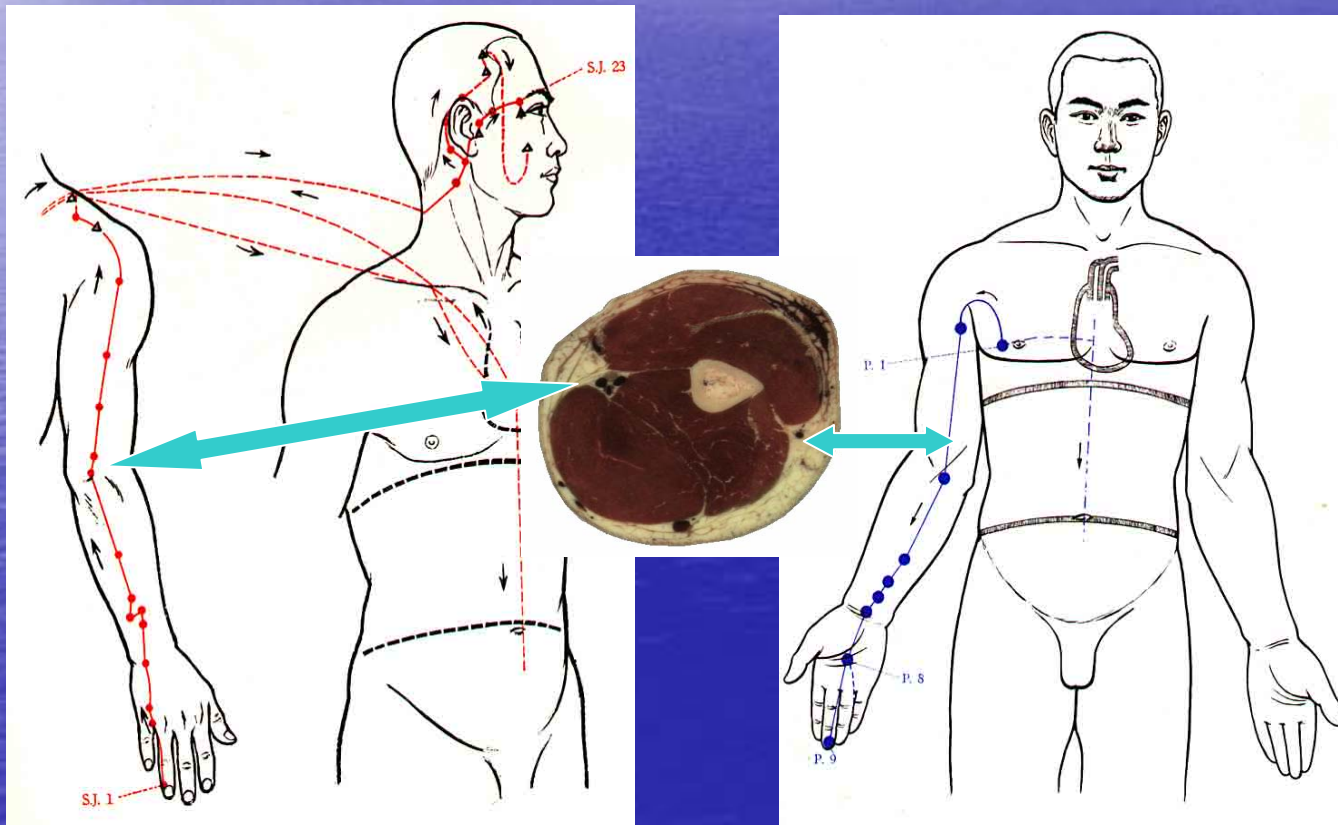
Stomach and Spleen Meridians



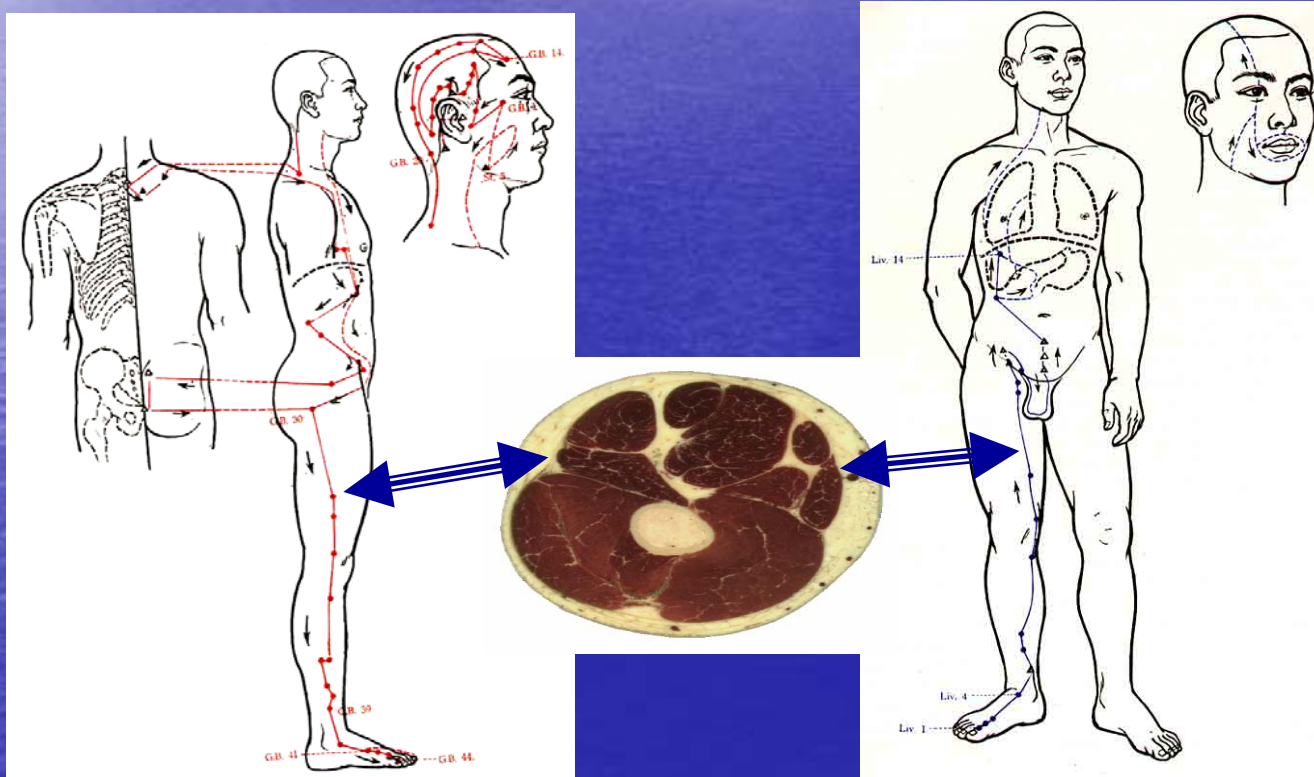
Heart and Small Intestine Meridians



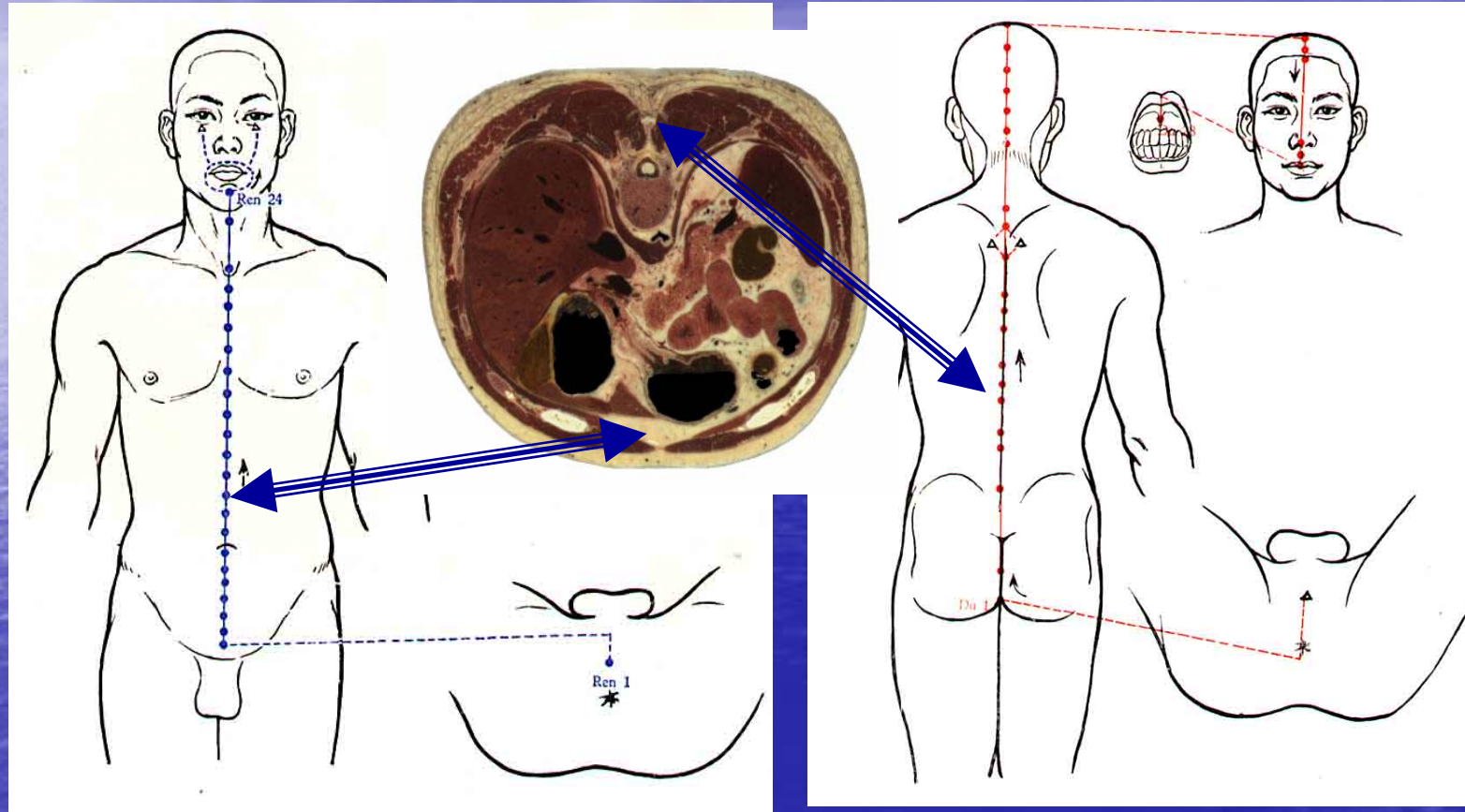
Pericardium and Triple-warmer (Endocrine) Meridians



Gall Bladder and Liver Meridians



Conception and Governor Meridians



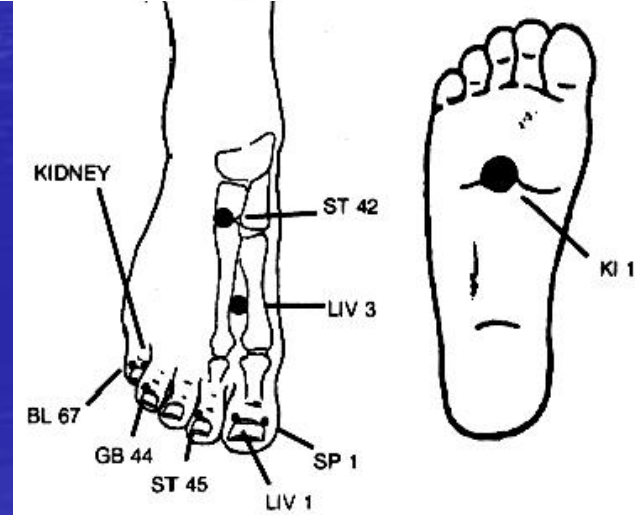
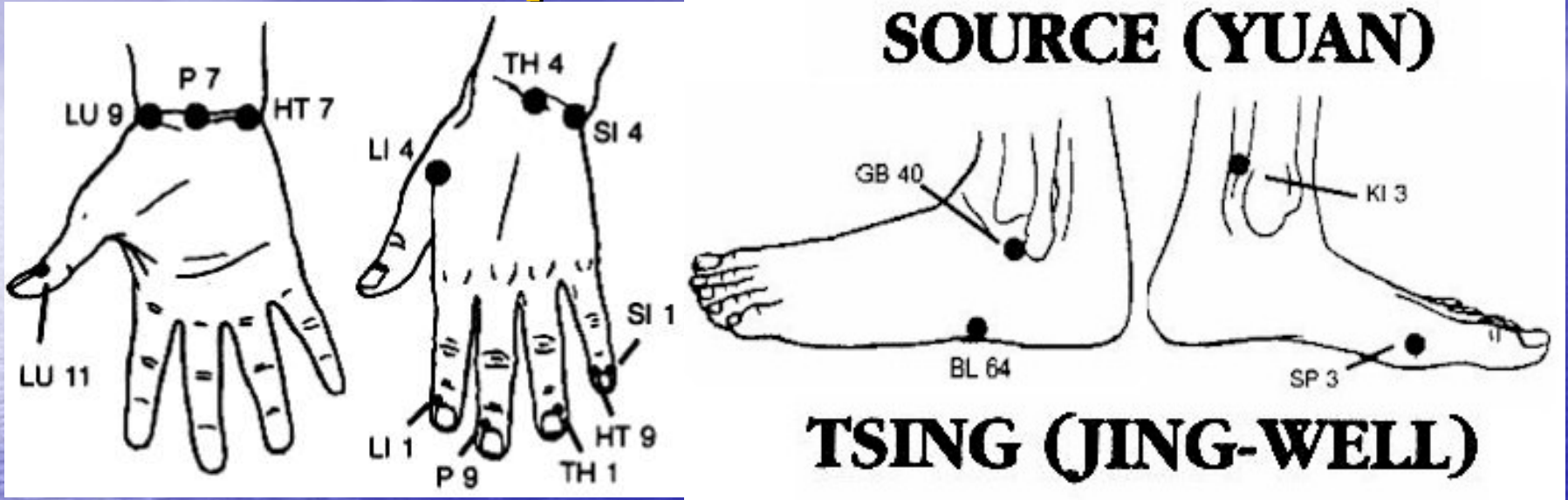
Measuring Deep Organ Function Via Acupuncture Meridians

- In 1951 Dr. Yoshio Nakatani presented his research and theory of **Ryodoraku Acupuncture**.
- Dr. Nakatani had found that there were a series of low electrical resistance points (or high electrical conductivity) running longitudinally up and down the body. When linked together these points closely matched the acupuncture meridians.
- Dr. Nakatani called these lines (or meridians) Ryodoraku (ryo = good, do` is (electro) conductive, raku = line). The points along the Ryodoraku he named Ryodoten.

Measuring Deep Organ Function via Acupuncture Meridians

- Dr. Nakatani was the first person to measure the electrical activity of acupuncture points and the first to formulate diagnostic and treatment criteria from these measurements. Nakatani was the first recorded acupuncturist to use electrical stimulation of acupuncture points.
- Nakatani's concepts provide an accurate pulse-organ diagnosis, accurate location of required treatment points and a very time efficient treatment regimen (generally only 7 seconds stimulation of each point is required. A classic acupuncture treatment lasting an average of 30 minutes would only take 2 - 3 minutes using Ryodoraku!).

Measuring Deep Organ Function via Acupuncture Meridians

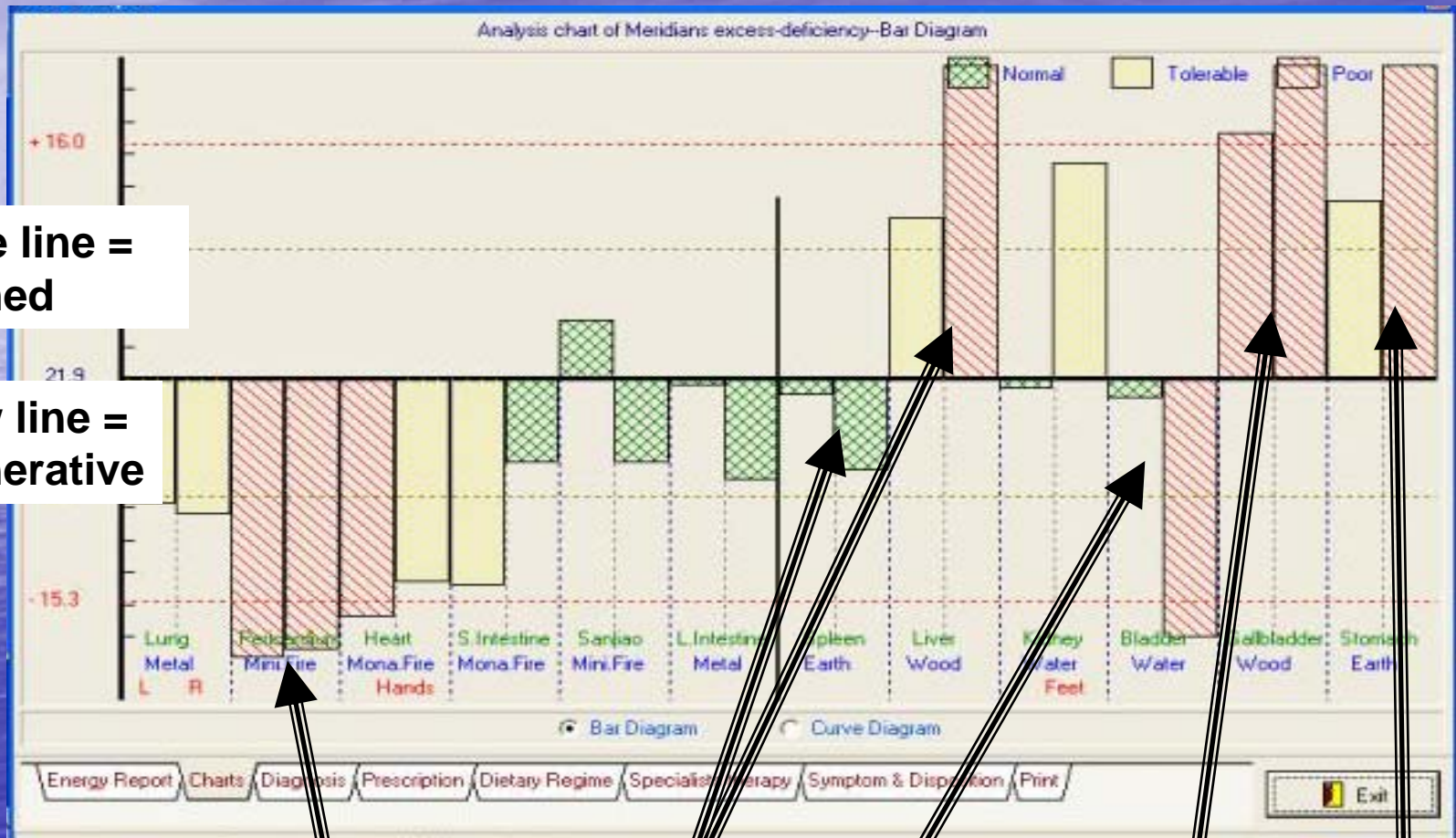


Measuring Deep Organ Function via Acupuncture Meridians

Case History

- 72 W/M found to have a high PSA on routine exam.
- History of
 - Chronic Heartburn—takes Prilosec daily
 - Recurrent GB attacks
 - Type II Diabetes

Measuring Deep Organ Function via Acupuncture Meridians



Above line =
inflamed

Below line =
degenerative

Parasympathetic
depressed

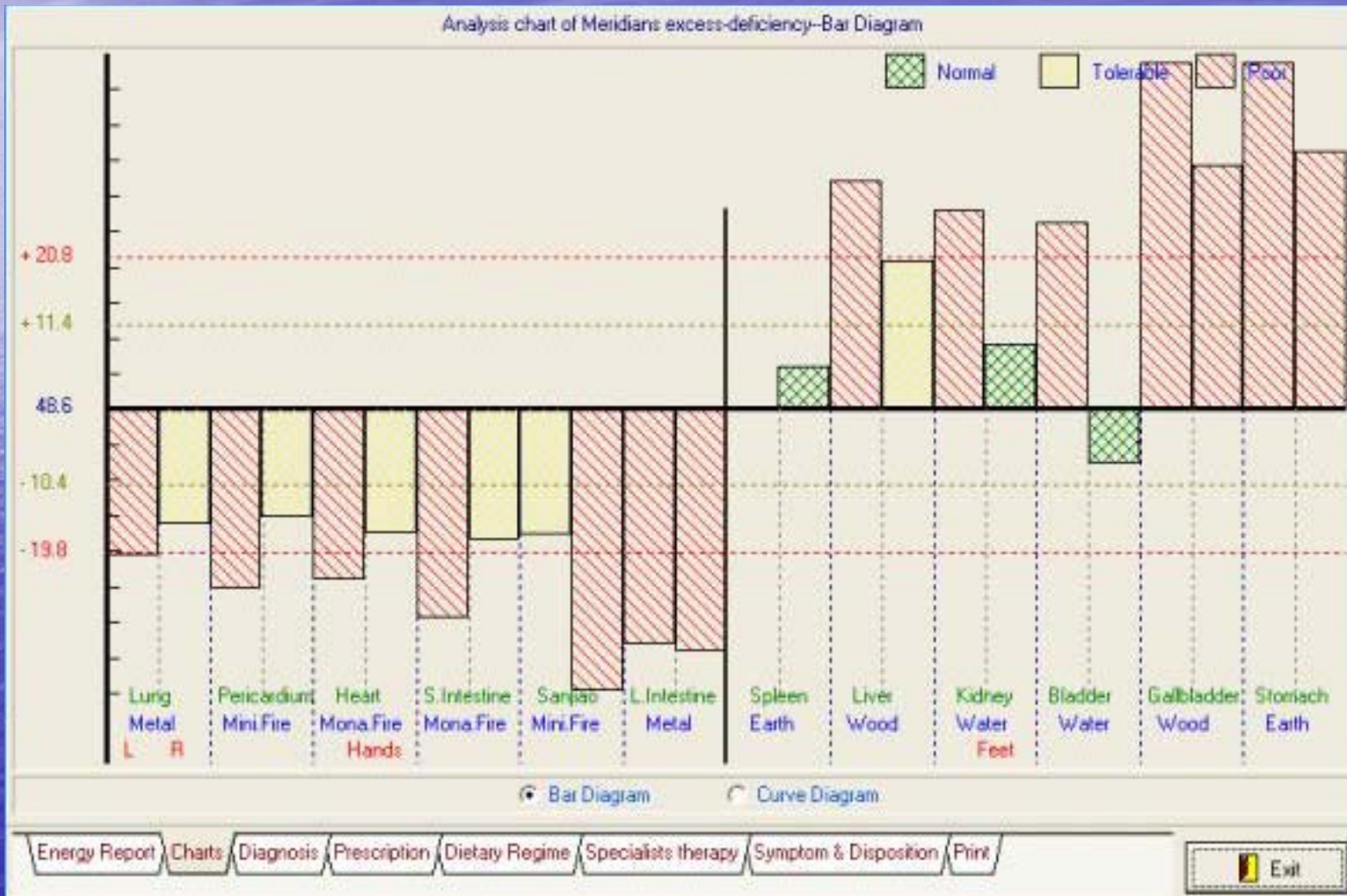
Diabetes

Prostate

Gall Bladder
Attacks

Heartburn

Energy (Voltage) Blockage



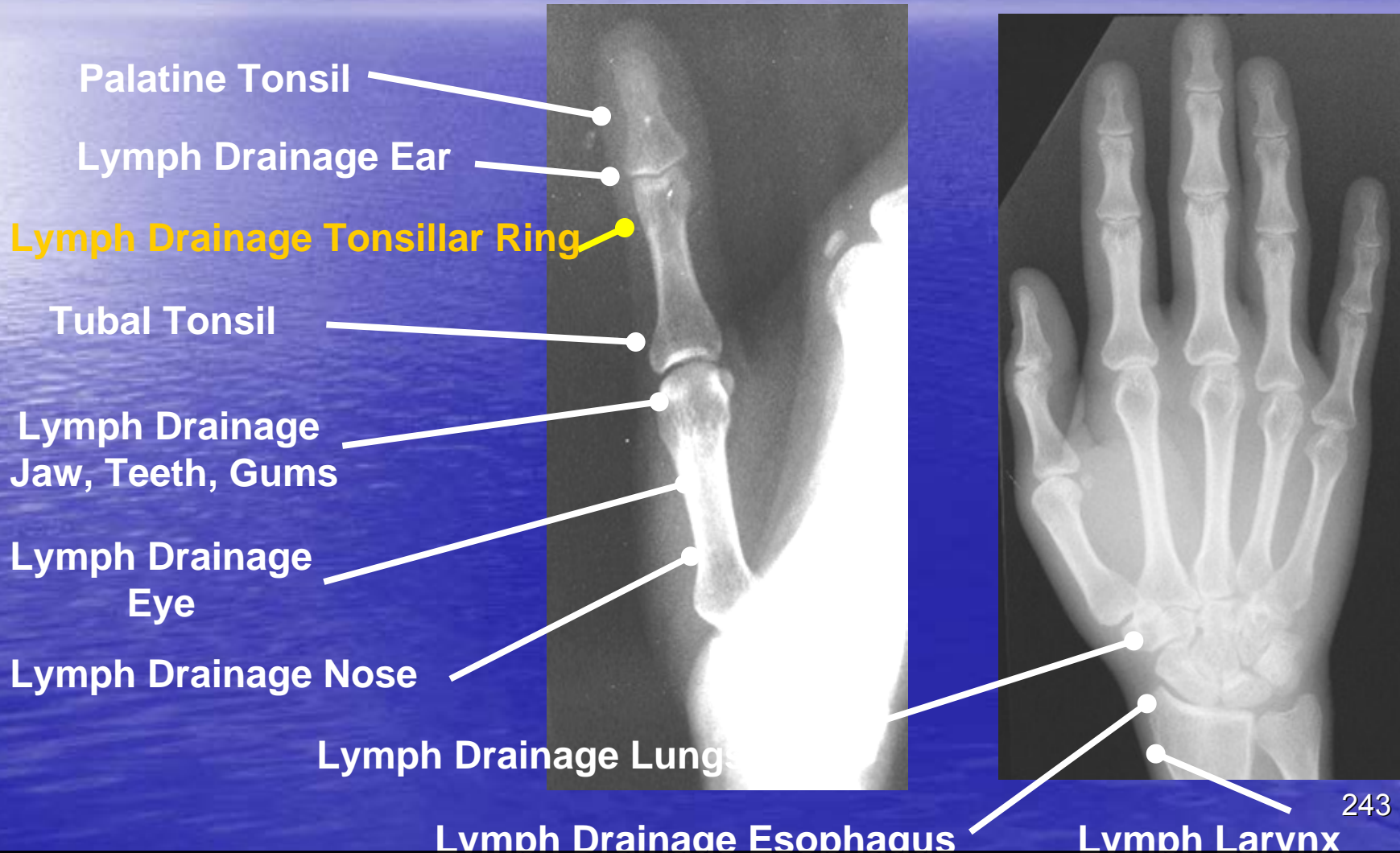
Voll Builds on Nakatani's Work

- Traditional Chinese Medicine found 12 main acupuncture meridians plus two governor meridians.
- Reinhold Voll, MD (Germany) found eight additional paired meridians: lymphatic, nervous system, fatty degeneration (toxins), organ decay (includes cancer), non-malignant degeneration, skin, joints, and allergies.
- Voll found the impedance of acupuncture points to be 95,000 ohms and the surrounding skin to be 2,000,000 ohms.

Electro-Acupuncture According to Voll

- Voll designed a machine that would register a “normal” reading at 50. At the upper end of 100 would represent no resistance to flow. A reading of zero would mean total resistance (no flow of current).
 - *In series pathways, the impedance of two or more resistors or capacitors is the sum of the individual resistance and reactances.*
 - *In parallel pathways, the impedance of two or more resistors or capacitors is the reciprocal of the sum of the resistances and reactances.*
- Voll associated specific points on the acupuncture meridians with specific parts of specific organs.

Voll Points Lymph



Voll Points Lung

Lung Parenchyma, Alveoli

Lung Lower Passages

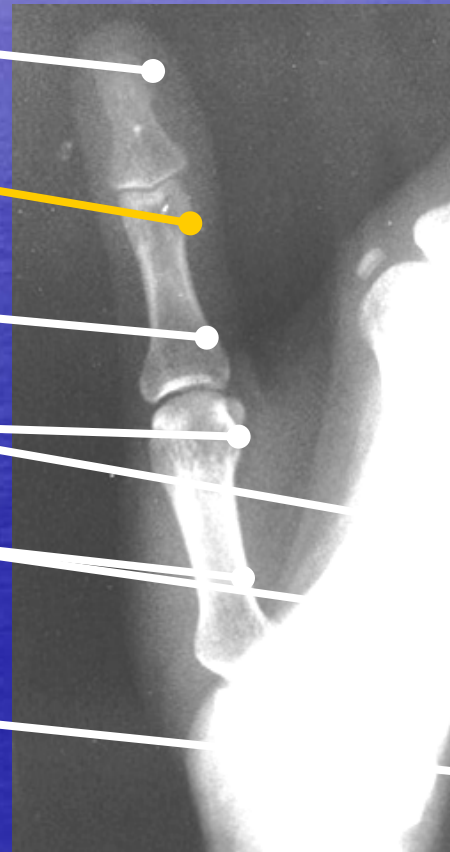
Bronchioles

Pleura (Palm Side)

Bronchi (Palm Side)

Trachea
(Palm Side)

Larynx (Palm Side)



Voll Points Large Intestine

R Transverse Colon
L Sigmoid Colon

Large Intestine

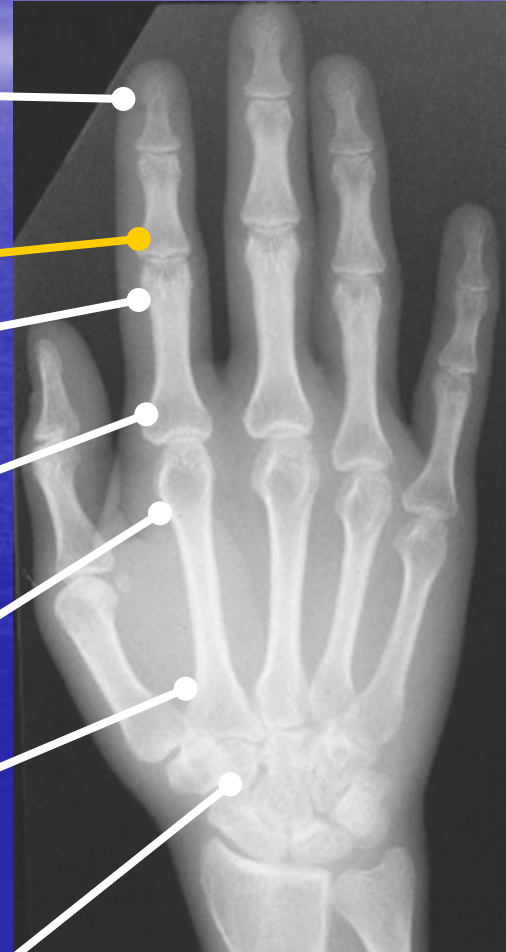
Peritoneum
Large Int. Area

R Right Colon Flexure
L Descending Colon

R Ascending Colon
L Left Colon Flexure

R Cecum
L Transverse Colon

R Appendix



Voll Points Nervous System

Lumbar and Sacral Nerves
Lower Extremities

Autonomic Nervous System

Peripheral & Central Nervous System

Meninges

Cervical & Thoracic
Upper Extremities

Brain Stem & Cerebrum

Cranial Nerves



Voll Points Circulation (Pericardium)

Arterial System

Blood Circulation

R Venous

L Arterial

Venous System (Palm Side)

Lymphatic System (Palm Side)



Voll Points Allergy (Vascular Degeneration)

Food Allergy

Allergic Irritation
Autonomic Nervous System

Allergies Entire Body

R Lining of Veins
L Linings of Arteries

Airborne Allergies

Contact Allergies



Voll Points

Cellular Metabolism/Organ Degeneration

Abdominal & Pelvic Organs

Autonomic Instability of Metabolism

Cellular Metabolism of Organs

Whole Peritoneum

Whole Pleura

Organs of Chest & Neck

Organs of Head



Voll Points

Endocrine System (Triple Warmer)

Gonads & Adrenal Glands

Ganglia of Neck

Endocrine System/Triple Warmer

R Head & Body of Pancreas
L Tail of Pancreas

Mammary Glands

Parathyroid, Thyroid, Thymus

Pituitary & Pineal



Voll Points Heart

R Aortic Valve
L Pulmonary Valve

Heart

Endocardium

Pericardium (Palm Side)

R Tricuspid Valve (Palm)
L Mitral Valve (Palm)

Myocardium (Palm)



Voll Points Small Intestine

R Ileum-Terminal
L Ileum-Left Portion

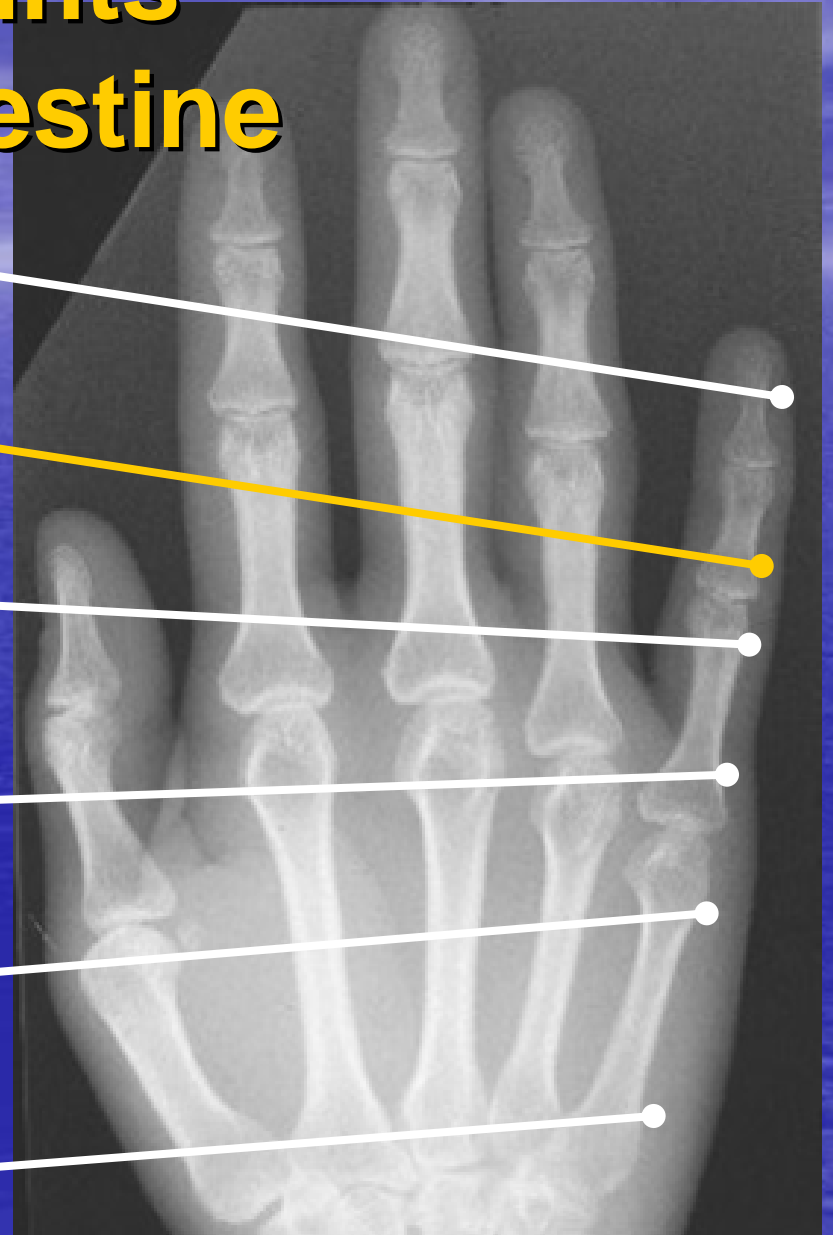
Small Intestine

R Peritoneum of Duodenum
L Peritoneum of Jejunum & Ileum

R Duodenum-Lower Portion
L Jejunum

R Duodenum-Descending
L Flexure of Duodenum & Jejunum

R Duodenum-Upper
L Duodenum-Ascending



Voll Points Spleen/Pancreas

R Protein Metabolism
L Irritation Upper Body

R Pancreas
L Spleen

R Peritoneum of Pancreas
L Peritoneum of Spleen

R Uric Acid Metabolism
L Irritations Lower Body

R Carbohydrate Metabolism
L Red Pulp Function

R Fat Metabolism
L Reticuloendothelial
Function



Voll Points Liver

Central Venous System
Liver

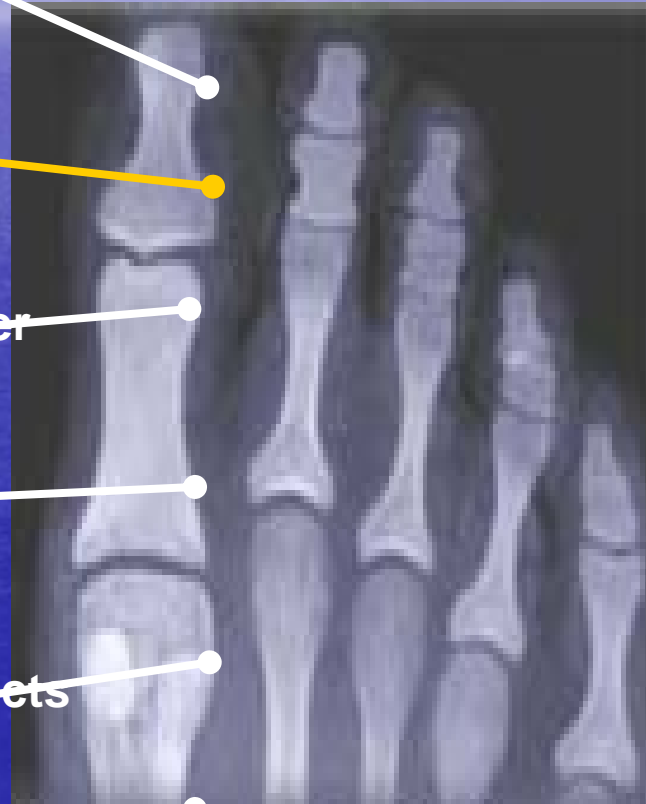
Liver

Peritoneum of Liver

Hepatic Lobular System
Liver Cells

Interlobular Biliferic Duets

Perivascular & Periportal System



Voll Points Joints

Joints

Pelvis, Sacral & Lumbar Vertebra

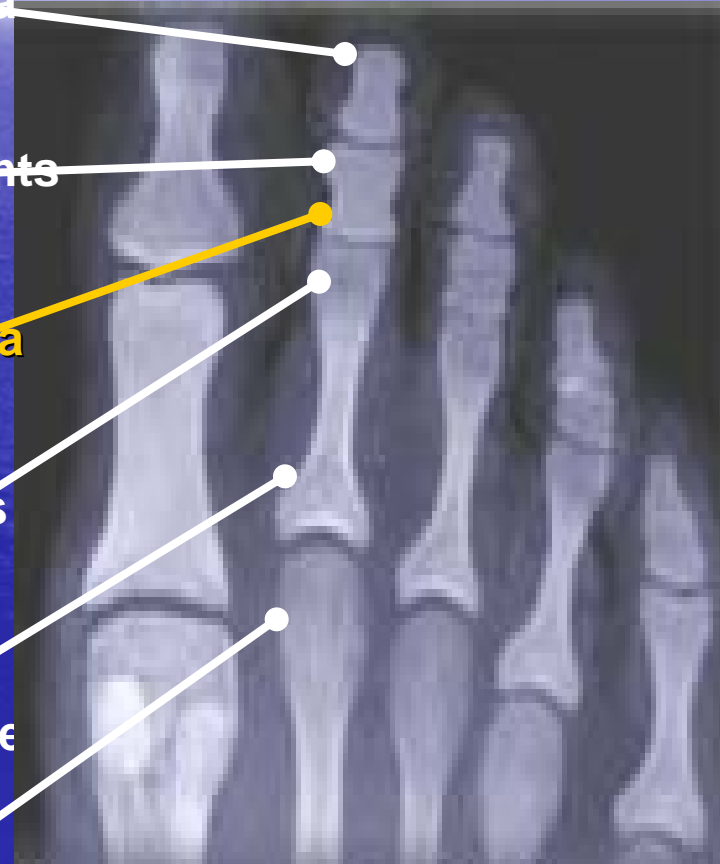
Allergic Irritation of Joints

Joints & Vertebra

Synovial Membrane of Joints

Joints Shoulder & Arms
Lower Cervical & Thoracic Vertebra

Joints-Neck & Jaw
Upper Cervical Vertebra



Voll Points Stomach

R Pylorus
L Stomach- Left Body

Stomach

Peritoneum of Stomach

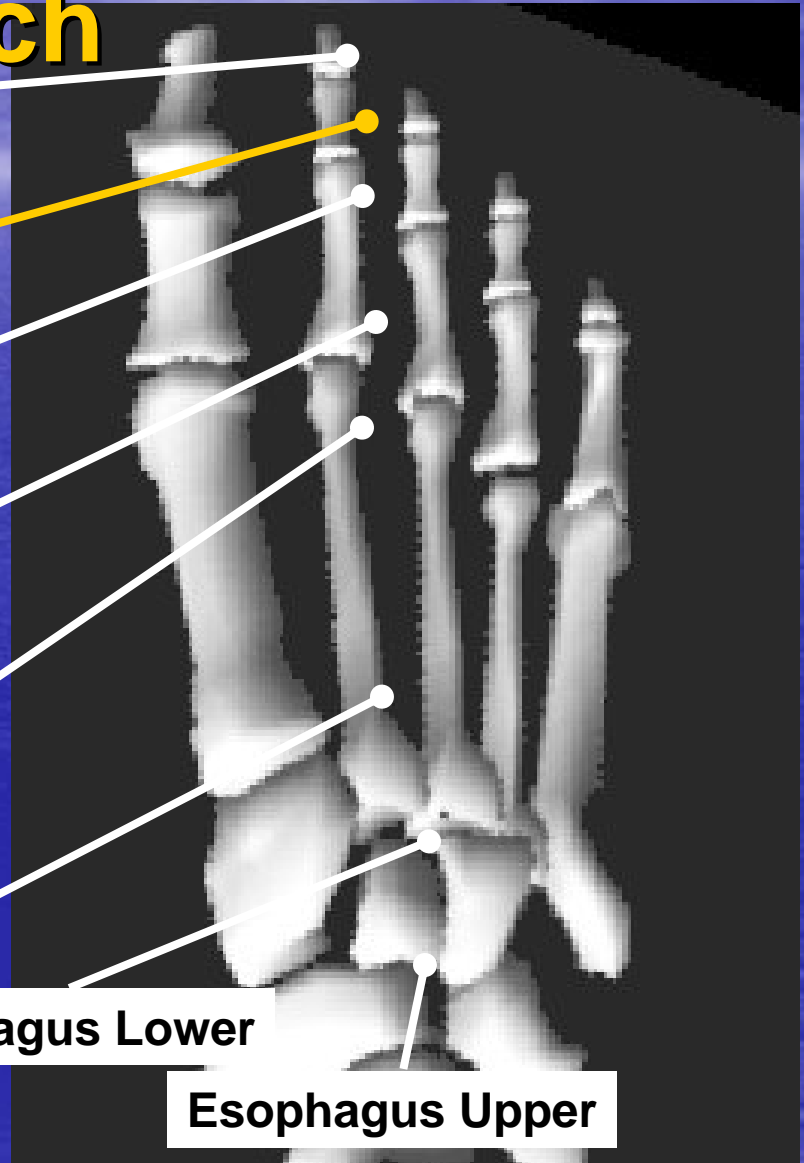
R Pyloric Antrum
L Stomach Fornix

Gastric Canals
R Ascending
L Descending

R Stomach Body
L Stomach Pylorus

Esophagus Lower

Esophagus Upper



Voll Points Fibrous Tissue

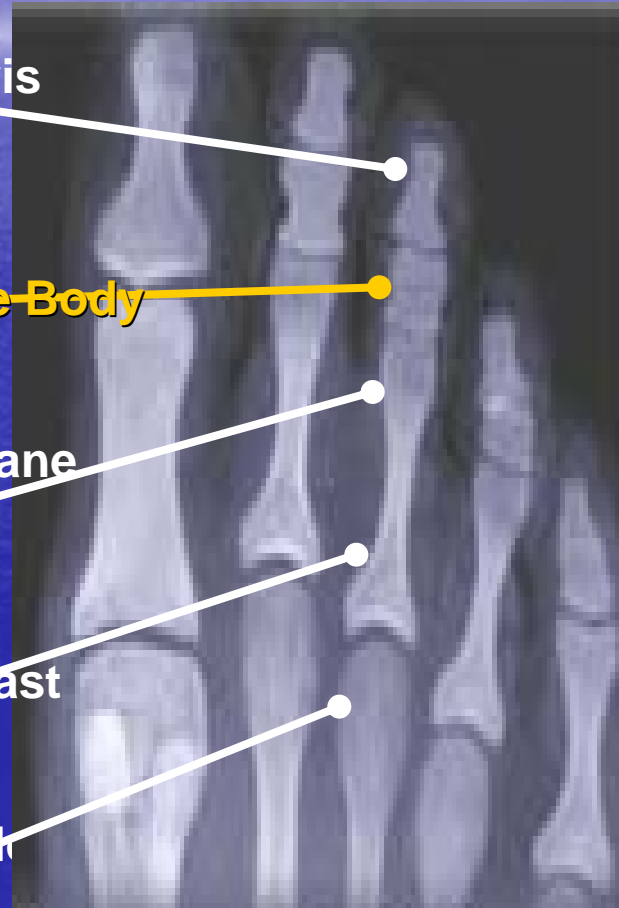
Organs Abdomen & Pelvis
External Genitals

Fibrous Tissue-Whole Body

Mucous Membrane
Whole Body

Organs of Chest, Neck, & Breast

Organs of the H



Voll Points Skin

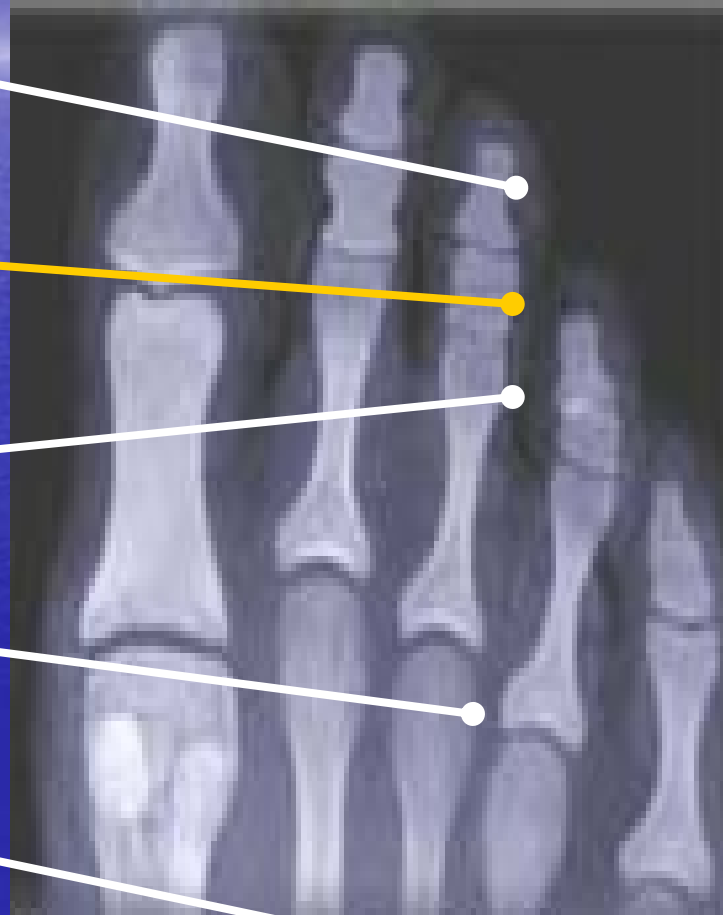
Skin Abdomen, Pelvis, Legs

Skin Whole Body

Scar of the Skin

Skin of Chest, Neck, Arms

Skin of Head & Scalp



Voll Points Fatty Tissue

Fat of Abdomen, Pelvis & Legs

Fatty Conditions for
Whole Body

Organs of Chest, Neck & Arms

Organs of Head



Voll Points Gallbladder

R Common Bile Duct
L Common Hepatic Duct

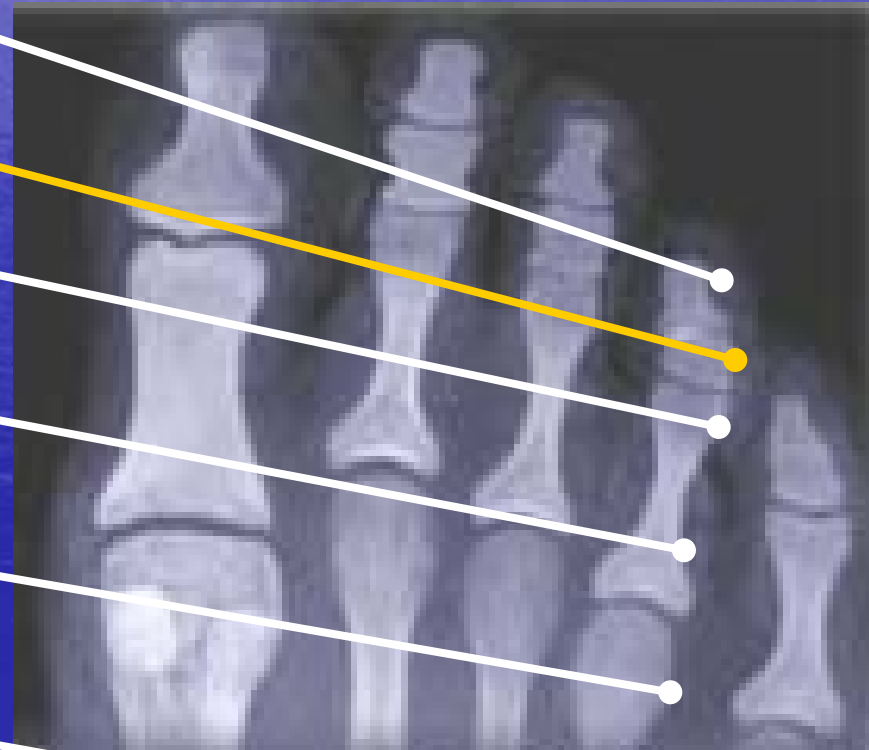
Gall Bladder & Bile Ducts

Peritoneum Gallbladder

R Cystic Duct
L Right Hepatic Duct

R Gallbladder
L Left Hepatic Duct

R Bile Ducts –Right Liver Lobe
L Bile Ducts-Left Liver Lobe



Voll Points Kidney

Kidney-Upper Ureter

Peritoneum Kidney

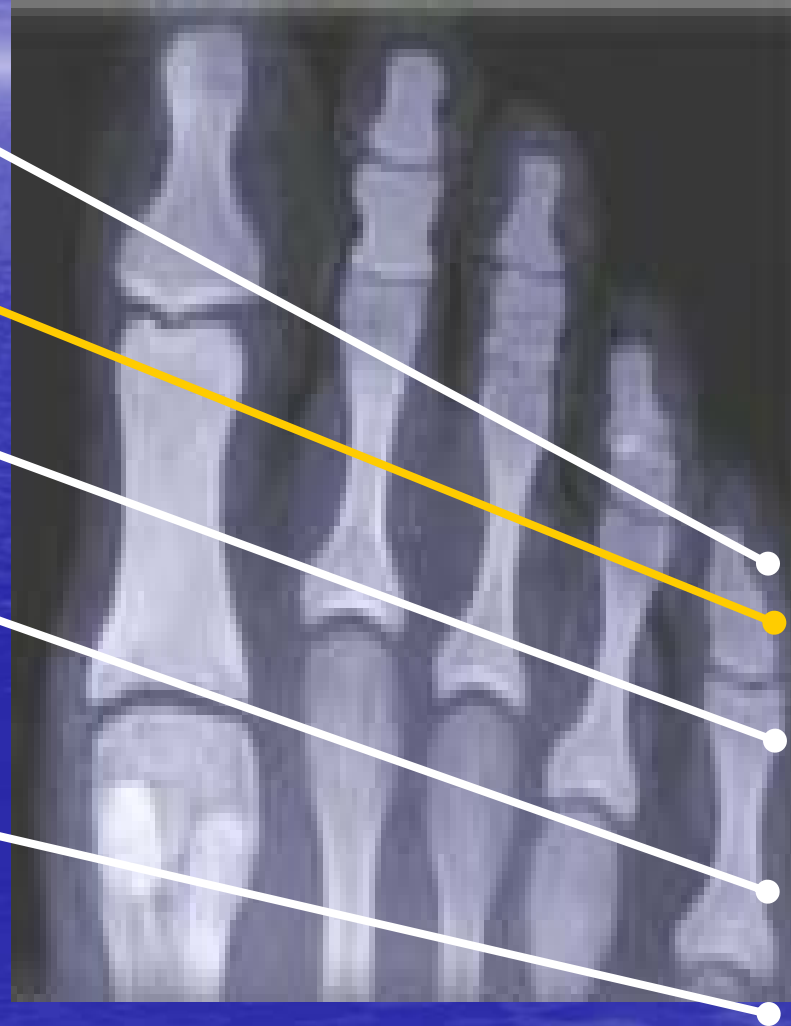
Ureter-Abdominal



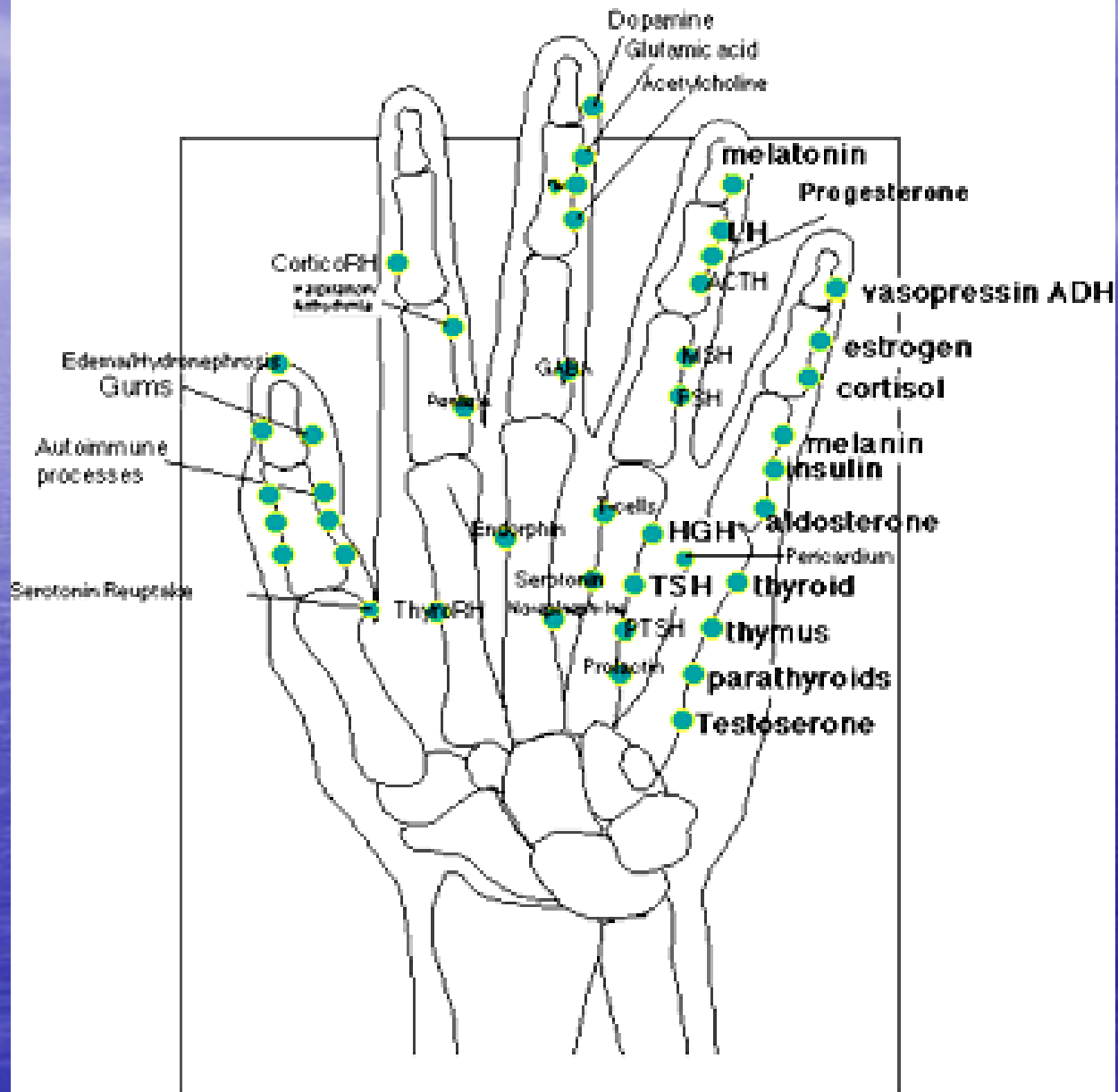
Voll Points

Urinary Bladder

- Urinary Bladder Body
- Urinary Bladder and Genitals**
- Peritoneum Bladder
- Urinary Bladder Trigone & Sphincter
- Genital Organs & Urethra



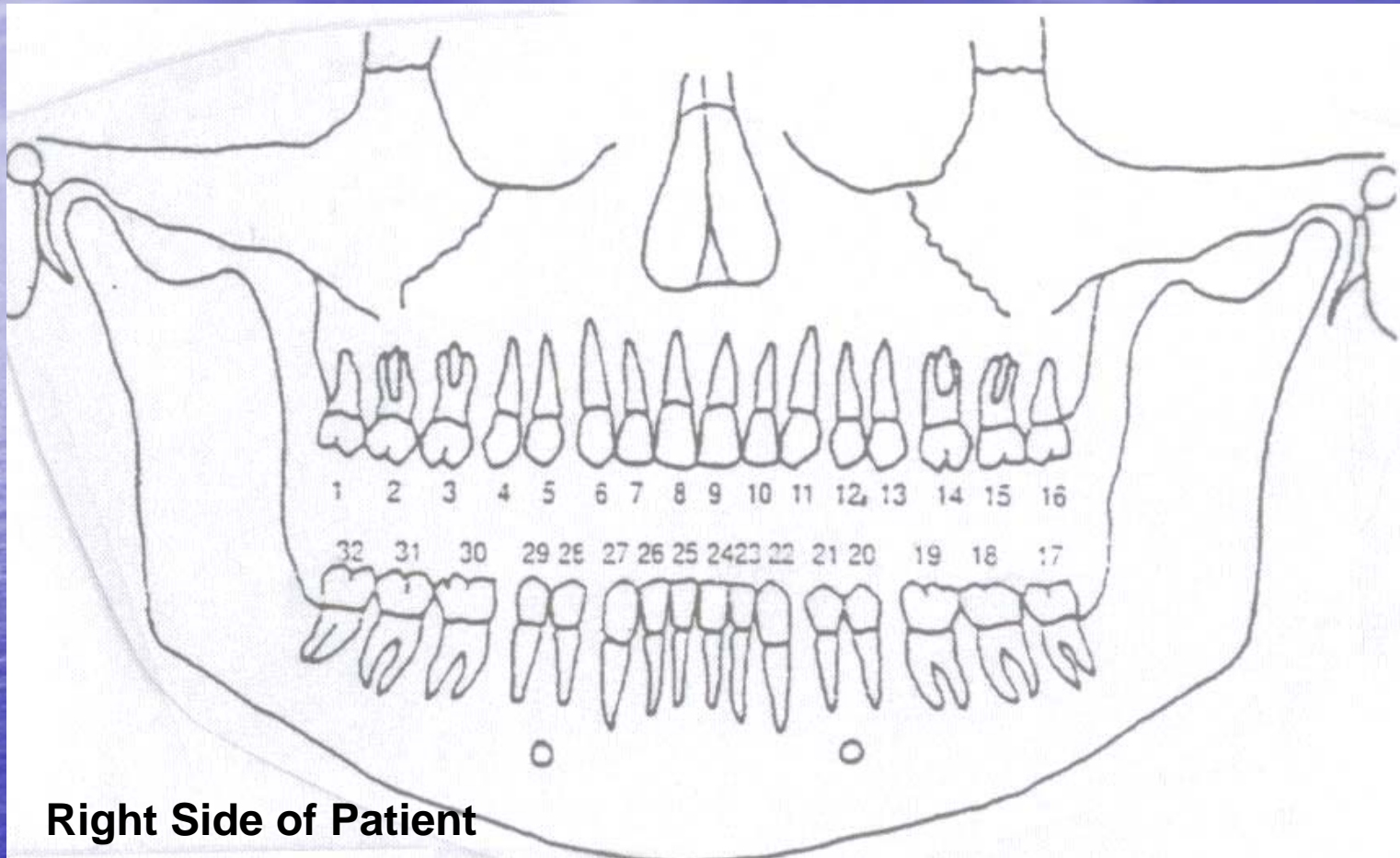
HORMONE, RECEPTOR & CNS EAC POINTS



Dental Acupuncture Meridians

- Each tooth influences an acupuncture meridian.
- Metal of any kind in a tooth can short-out the passage of electrons through that meridian.
- Toxicity (mercury, nickel, infection, etc.) from any tooth can affect the organs associated with that meridian.

Dental Acupuncture Meridians



Let The Tooth Be Known; Dawn Ewing, RDH, PhD, ND, pp. 107-114.

Dental Acupuncture Meridians

| Tooth | Description | Organ Correlation |
|-------|-------------------------|--|
| 1 | Upper R 3rd molar | Anterior lobe pituitary |
| 2 | Upper R 2nd molar | Parathyroid, R abdominal musc. |
| 3 | Upper R 1st molar | Tongue, max sinus, R leg, larynx pancreas, esophaus, R breast |
| 4 | Upper R 2nd bicuspid | Thymus, R breast, R diaphragm |
| 5 | Upper R 1st bicuspid | Ethmoid, R arm, R foot, R lung, large intestine |
| 6 | Upper R cuspid | Pituitary, hypothalamus, R eye, sphenoid, R leg, liver, GB, |
| 7 | Upper R lateral incisor | Same as #8 |
| 8 | Upper R central incisor | Pineal, nose, sinuses R leg, kidney, baldder, prostate, rectum |

Let The Tooth Be Known; Dawn Ewing, RDH, PhD, ND, pp. 107-114.

Dental Acupuncture Meridians

| | |
|-------------------------------|---|
| 9 Upper L central incisor | Pineal, sinuses, L leg, kidney, bladder, testicle, prostate |
| 10 Upper L lateral incisor | Same as # 9 |
| 11 Upper L cuspid | Pituitary, hypothalamus, L eye, sinuses, L leg |
| 12 Upper L 1st bicuspid | L nose, arm, foot, vertebrae, lung, large int. |
| 13 Upper L 2nd bicuspid | Thymus, breast, diaphragm |
| 14 Upper L 1st molar | Thyroid, tongue, sinuses, L leg, spleen, esophagus, stomach, L breast |
| 15 Upper L 2nd molar | #14, parathyroid, L abd. Musc. |
| 16 Upper L 3rd molar (wisdom) | Pituitary, L ear, L shoulder, L foot, L hand, L sacroiliac, heart, |

Let The Tooth Be Known; Dawn Ewing, RDH, PhD, ND, pp. 107-114.

Dental Acupuncture Meridians

| | | |
|----|----------------------------|--|
| 17 | Lower L 3rd molar (wisdom) | Tongue, ear, L sacroiliac, L hand, L foot, shoulder, elbow, heart, small int., peripheral nerves |
| 18 | Lower L 2nd molar | Same as # 19 |
| 19 | Lower L 1st molar | Nose, sinuses, L hand, foot, shoulder, elbow, lung, large int. |
| 20 | Lower L 2nd bicuspid | Same as #21 |
| 21 | Lower L 1st bicuspid | Tongue, sinuses, L ankle, hip, knee, spleen, esophagus, stomach |
| 22 | Lower L cuspid | Gonads, L eye, sinuses, L ankle, hip, knee, vertebrae, liver |
| 23 | Lower L lateral incisor | Same as #24 |
| 24 | Lower L central incisor | Adrenals, sinuses, L ankle, L sacroiliac, knee, kidney, rectum, gonads, prostate, uterus |

Let The Tooth Be Known; Dawn Ewing, RDH, PhD, ND, pp. 107-114.

Dental Acupuncture Meridians

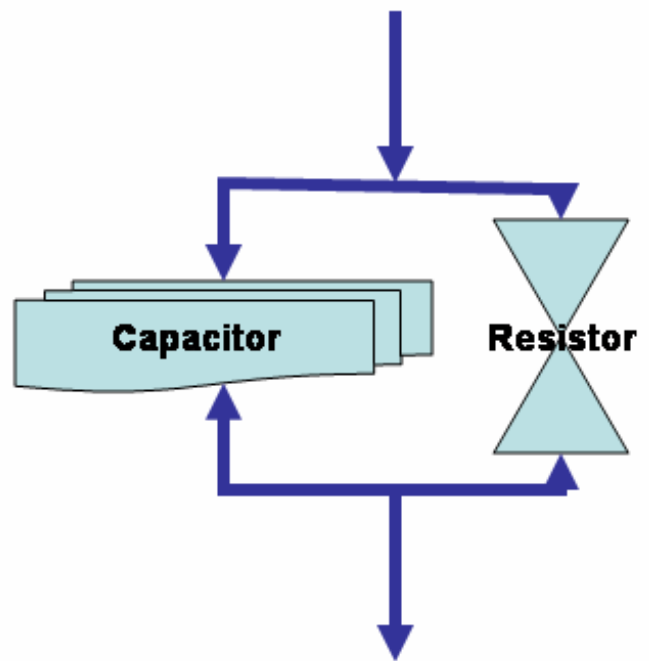
| | | |
|----|----------------------------|--|
| 25 | Lower R central incisor | Same as #26 |
| 26 | Lower R lateral incisor | Adrenals, sinuses, R ankle, R sacroiliac, knee, kidney, rectum, gonads, prostate, uterus |
| 27 | Lower R cuspid | Gonads, R eye, sinuses, R ankle, hip, knee, vertebrae, liver |
| 28 | Lower R 1st bicuspid | Same as #29 |
| 29 | Lower R 2nd bicuspid | Tongue, R sinus, R ankle, R hip, knee, pancreas, esophagus, stomach, |
| 30 | Lower R 1st molar | Nose, sinuses, R hand, foot, shoulder, elbow, lung, large int. |
| 31 | Lower R 2nd molar | Nose, sinuses, R hand, foot, shoulder, elbow, lung, large int. |
| 32 | Lower R 3rd molar (wisdom) | Tongue, ear, L sacroiliac, L hand, L foot, shoulder, elbow, heart, small int., peripheral nerves |

Let The Tooth Be Known; Dawn Ewing, RDH, PhD, ND, pp. 107-114.

Acupuncture Correspondences

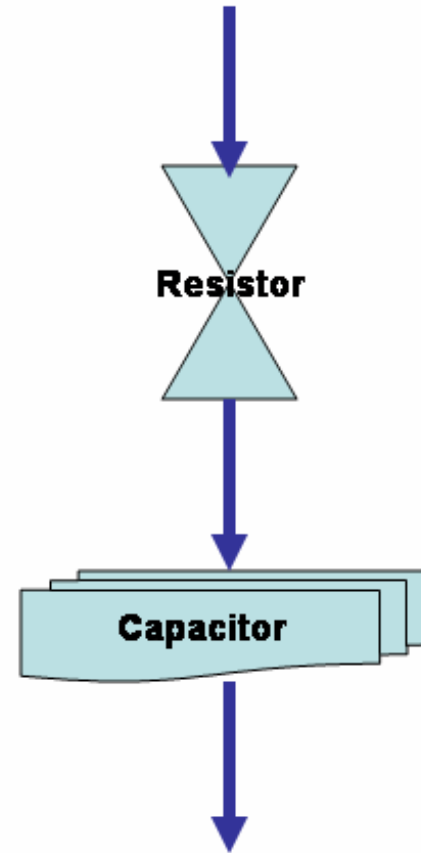
| Interior Channel | Exterior Channel |
|-------------------------|-------------------------|
| Solid | Hollow |
| Lung | Large Intestine |
| Pericardium | Triple Burner |
| Heart | Small Intestine |
| Spleen | Stomach |
| Liver | Gall Bladder |
| Kidney | Bladder |

Electronic Circuits



Parallel

Cell Membrane/Cytoskeleton



Series

Extracellular Fluid/Organs

Impedance and Resistance

- The term **impedance** is a general expression which can be applied to any electrical entity which *impedes* the flow of current. Thus this expression could be used to denote a resistance, a pure reactance, or as is most likely in the real world, a complex combination of *both* reactance and resistance.

Resistance

Certain materials such as copper have many free electrons. Other materials have fewer free electrons and substances such as glass, rubber, mica have practically no free electron movement therefore making good insulators. Between the extremes of good conductors such as silver, copper and good insulators such as glass and rubber lay other conductors of reduced conducting ability, they “resist” the flow of electrons hence the term **RESISTANCE.**

Reactance

REACTANCE is the property of resisting or impeding the flow of ac current or ac voltage in inductors and capacitors. Note particularly we speak of alternating current only ac, which expression includes audio (AF) and radio frequencies (RF), NOT direct current DC.

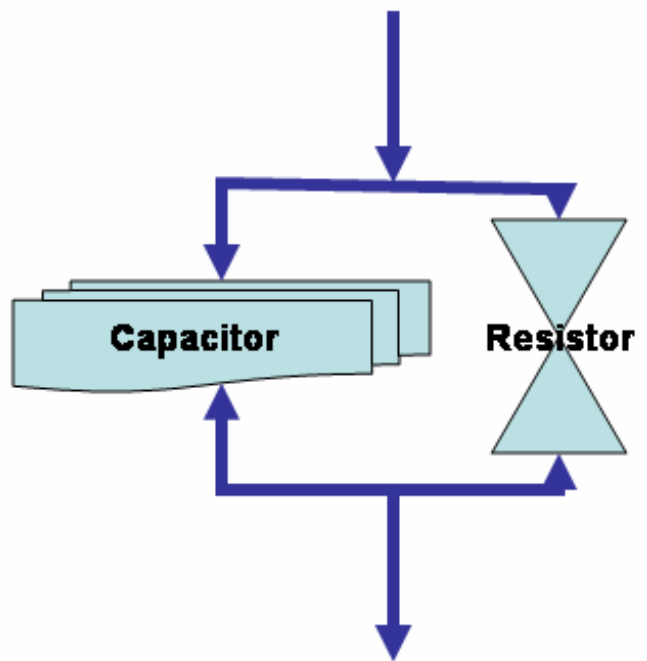
Capacitance

- A capacitor (formerly condenser) has the ability to hold a charge of electrons.
- The number of electrons it can hold under a given electrical pressure (voltage) is called its **CAPACITANCE** or capacity.
Two metallic plates separated by a non-conducting substance between them make a simple capacitor.
- Capacitors will pass AC currents but not DC.

Inductance

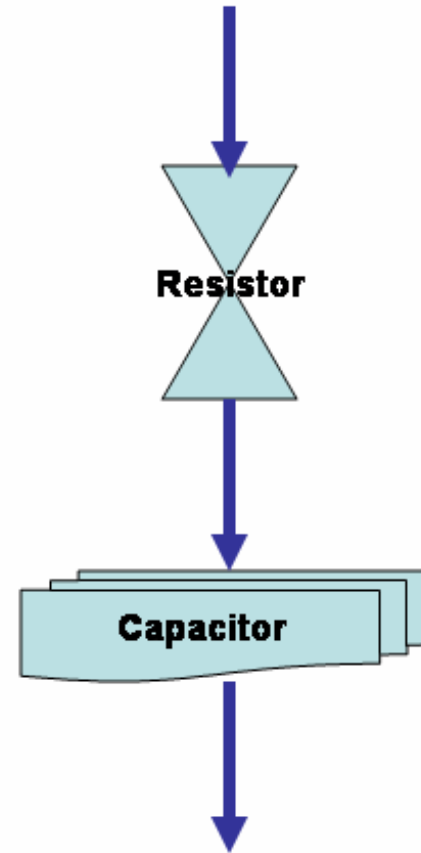
- The property of INDUCTANCE might be described as “when any piece of wire is wound into a coil form, it forms an inductance which has the property of opposing any change in current.”
- Alternatively, it could be said “inductance is the property of a circuit by which energy is stored in the form of an electromagnetic field.”

Tesla Tuning Circuits



Parallel

Cell Membrane/Cytoskeleton

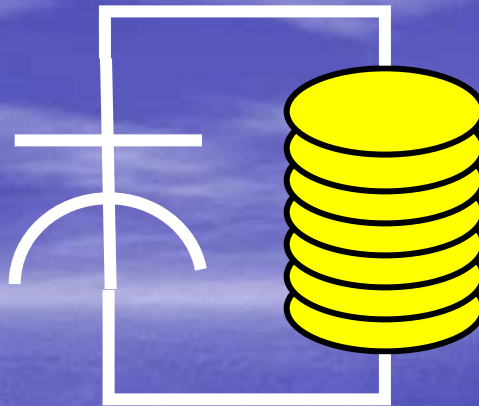


Resistor

Capacitor

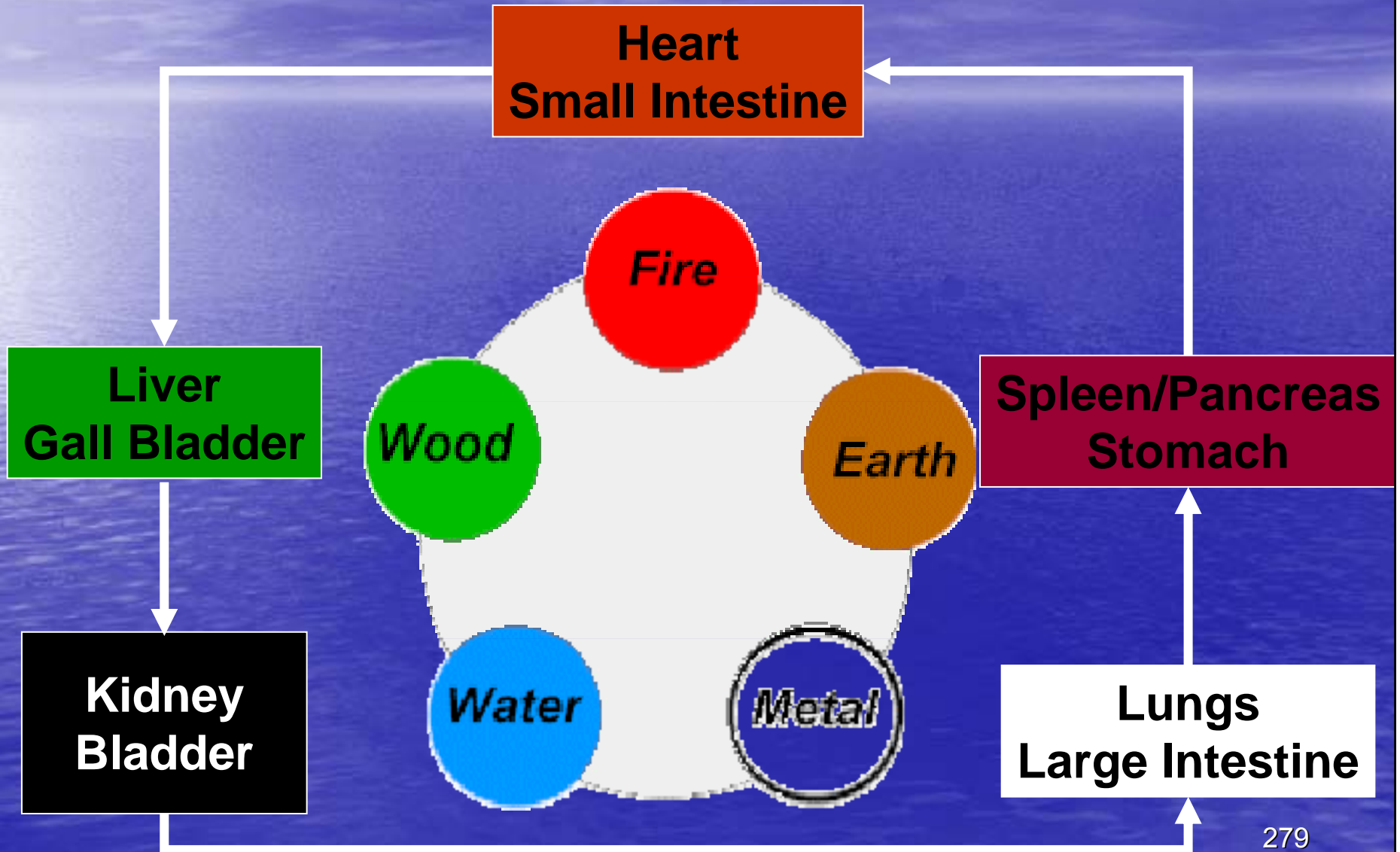
Series

Extracellular Fluid/Organs



| Interior Channel | Exterior Channel |
|-------------------------|-------------------------|
| Lung | Large Intestine |
| Pericardium | Triple Burner |
| Heart | Small Intestine |
| Spleen | Stomach |
| Liver | Gall Bladder |
| Kidney | Bladder |

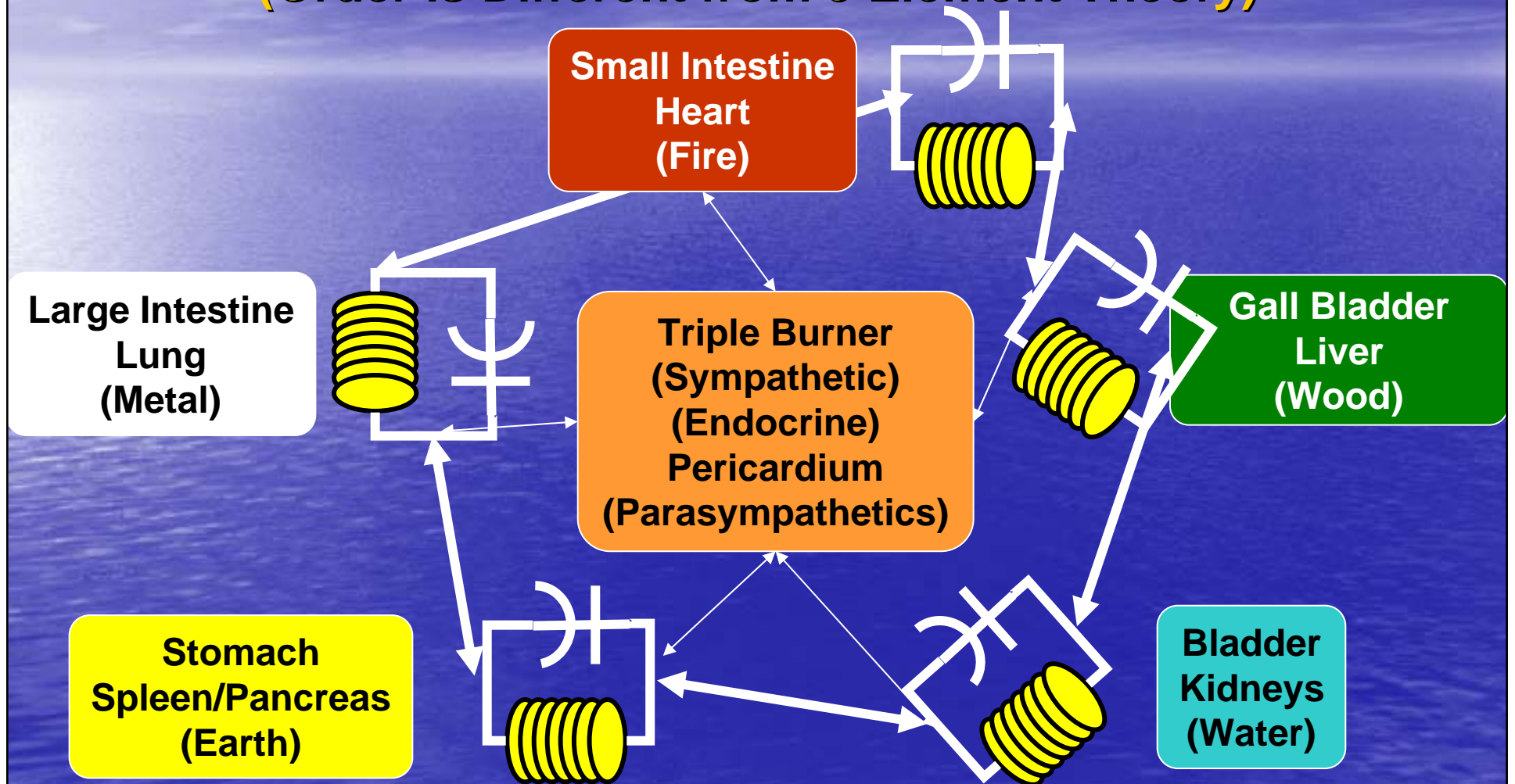
Chinese Five Element Theory



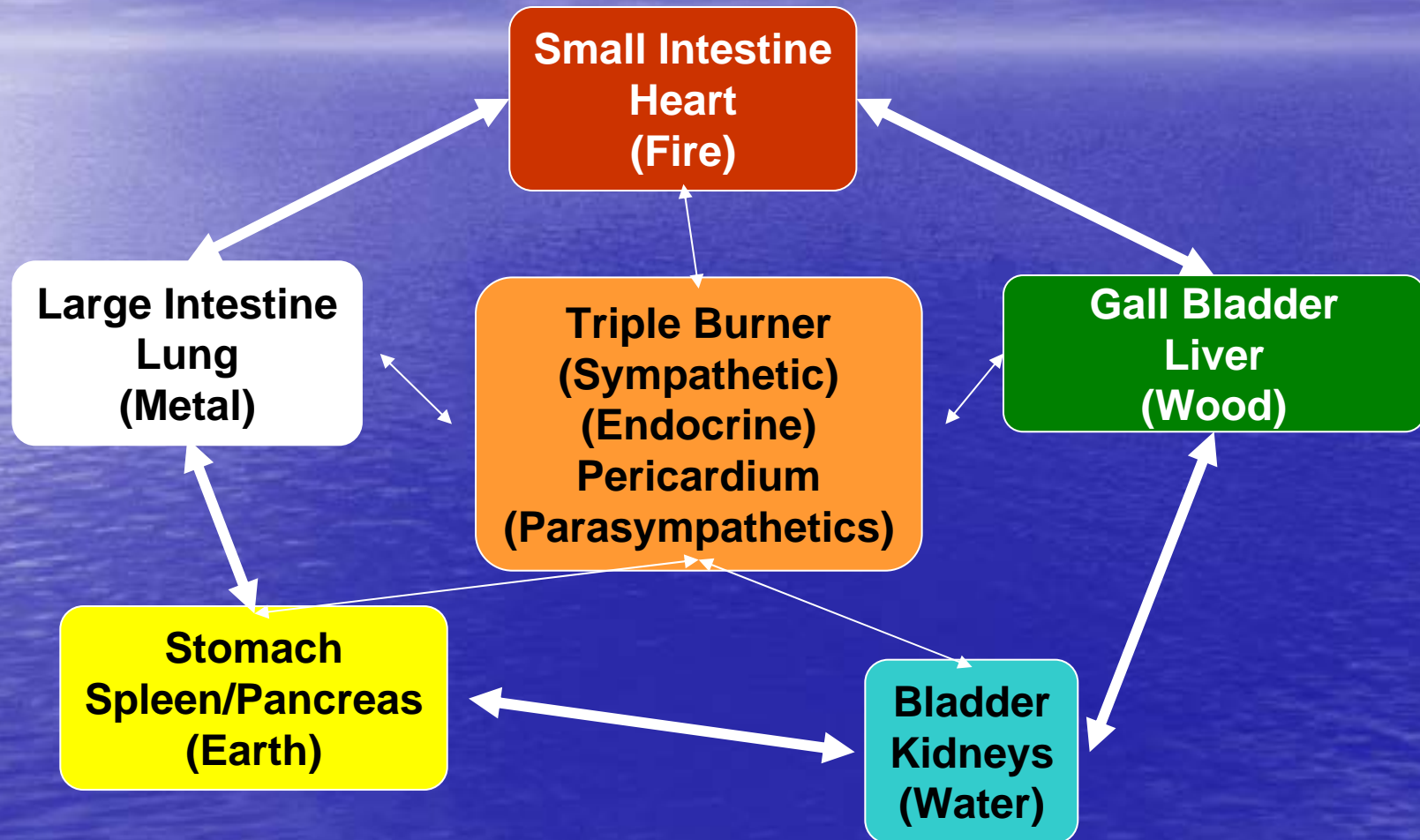
If one maps out the Connecting Meridians of acupuncture, one gets a slightly different pattern than the classical Five Element Theory.

Connecting Meridians Show Organ Pairs are Parallel Tesla Coils Wired in Series

(Order is Different from 5 Element Theory)



Connecting Meridians Show Organ Pairs are Parallel Tesla Coils Wired in Series (Order is Different from 5 Element Theory)



Connecting Meridians

Heart: Brain, Armpit, Tongue
Small Int: Ear
(Fire)

Lung: Nose, Skin
Large Int.: Skin, Nose, Shoulder, Tooth
(Metal)

Liver: Gonads, Ribs, Eye
GB: Head Endocrine, Emotions, Ear, Muscle
(Wood)

Spleen: Brain, Endocrine, Stomach, Ribs
Stomach: Breast, Mouth, Nose, Lips, Lids
(Earth)

Kidney: Adrenals, Nervous Syst., Ear
Bladder: Brain, Body Fluids, Muc Memb., Nose, Eye
(Water)

Five Elements

**Heart: Brain, Armpit, Tongue
Small Int: Ear
(Fire)**

**Spleen: Brain, Endocrine, Stomach, Ribs
Stomach: Breast, Mouth, Nose, Lips, Lids
(Earth)**

**Liver: Gonads, Ribs, Eye
GB: Head Endocrine, Emotions, Ear, Muscle
(Wood)**

**Lung: Nose, Skin
Large Int.: Skin, Nose, Shoulder, Tooth
(Metal)**

**Kidney: Adrenals, Nervous Syst., Ear
Bladder: Brain, Body Fluids, Muc Memb., Nose, Eye
(Water)**

Autonomic Nerves and the Spine

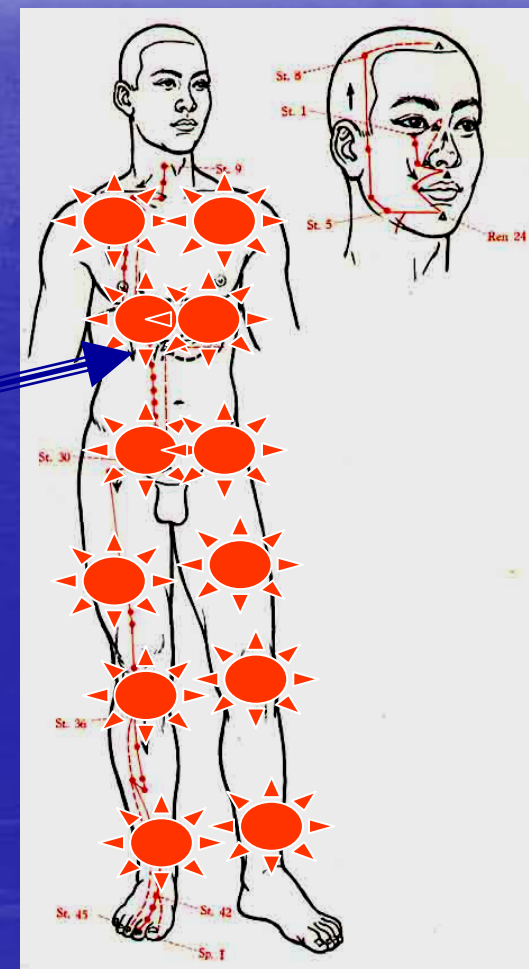
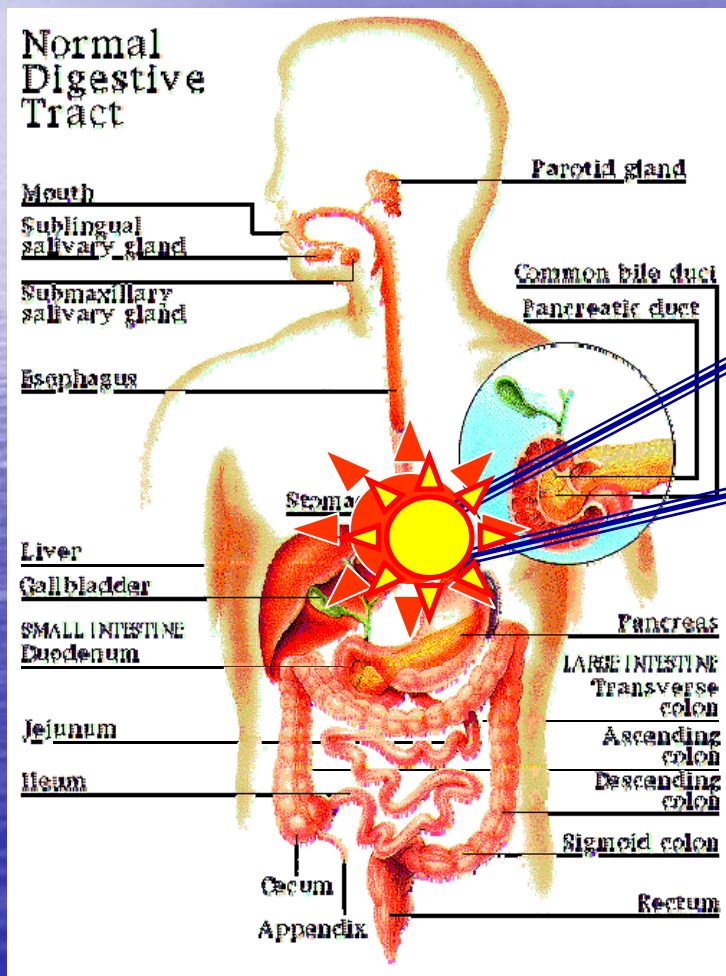
| SPINAL NERVE CHART | | |
|---|---|--|
| SHOWING THE EFFECTS OF VERTEBRAL SUBLUXATIONS AND PINCHED NERVES | | |
| <p>"The nervous system controls and coordinates all organs and structures of the human body." (Gray's Anatomy, 29th Ed., page 4). Misalignments of spinal vertebrae and discs may cause irritation to the nervous system and affect the structures, organs, and functions which may result in the conditions shown below.</p> | | |
| SPINAL COLUMN SIDE VIEW | AREAS SUPPLIED BY NERVES | POSSIBLE EFFECTS OR CONDITIONS |
| CERVICAL SPINE | 1 C Blood supply to the head, the pituitary gland, the scalp, bones of the face, the brain itself, inner and middle ear, the sympathetic nervous system. | Headaches, nervousness, insomnia, head colds, high blood pressure, migraine headaches, mental conditions, nervous breakdowns, amnesia, epilepsy, chronic tiredness, dizziness. |
| | 2 C Eyes, optic nerve, auditory nerve, sinuses, mastoid bones, tongue, forehead. | Sinus trouble, allergies, crossed eyes, deafness, eye troubles, earache, fainting spells, certain cases of blindness. |
| | 3 C Cheeks, outer ear, face bones, teeth, trifacial nerve. | Neuralgia, neuritis, acne or pimples, eczema. |
| | 4 C Nose, lips, mouth, eustachian tube, mucous membranes. | Hay fever, rose fever, etc., hard of hearing, adenoid infections, post nasal drip. |
| | 5 C Vocal cords, neck glands, pharynx. | Laryngitis, hoarseness, throat conditions like a sore throat, etc. |
| THORACIC SPINE | 6 C Neck muscles, shoulders, tonsils. | Stiff neck, pain in upper arm, tonsillitis, whooping cough, croup. |
| | 7 C Thyroid gland, bursa in the shoulders, the elbows. | Bursitis, colds, thyroid conditions, goiter, tennis elbow, tendinitis. |
| | 1 T Arms from the elbows down, including the hands, wrists and fingers, also the esophagus and trachea. | Asthma, cough, difficult breathing, shortness of breath, pain in lower arms and hands, symptoms similar to carpal tunnel syndrome. |
| | 2 T Heart including its valves and covering, also coronary arteries. | Functional heart conditions and certain chest pains. |
| | 3 T Lungs, bronchial tubes, pleura, chest, breast, nipples. | Bronchitis, pleurisy, pneumonia, congestion, influenza, grip. |
| | 4 T Gall bladder and common duct. | Gall bladder conditions, jaundice, shingles. |
| | 5 T Liver, solar plexus, blood. | Liver conditions, fevers, low blood pressure, anemia, poor circulation, arthritis. |
| | 6 T Stomach. | Stomach troubles including nervous stomach, indigestion, heartburn, dyspepsia, etc. |
| | 7 T Pancreas, islands of Langerhans, duodenum. | Diabetes, ulcers, gastritis, hypoglycemia. |
| | 8 T Spleen, diaphragm. | Lowered resistance, acute and chronic infections, hiccoughs. |
| LUMBAR SPINE | 9 T Adrenals or supra-renals. | Allergies, hives, hypertension, anemia, hypoglycemia, obesity, hair loss. |
| | 10 T Kidneys. | Kidney troubles, hardening of the arteries, chronic tiredness, nephritis, pyelitis. |
| | 11 T Kidneys, Ureters. | Skin conditions like acne or pimples, eczema, boils, etc., auto-intoxication. |
| | 12 T Small intestines, Fallopian tubes, lymph circulation. | Rheumatism, gas pains, certain types of sterility. |
| | 1 L Large intestines or colon, inguinal rings. | Constipation, colitis, dysentery, diarrhea, some ruptures or hernias. |
| | 2 L Appendix, abdomen, upper leg. | Appendicitis, cramps, acidosis, varicose veins. |
| | 3 L Sex organs, ovaries or testicles, uterus, bladder, knee. | Bladder troubles, menstrual troubles, miscarriages, bed wetting, impotency, change of life symptoms, many knee pains. |
| | 4 L Prostate gland, muscles of the lower back, sciatic nerve. | Sciatica, lumbago, difficult, painful or too frequent urination, backaches. |
| | 5 L Lower legs, ankle, feet, toes, arches. | Poor circulation in legs, swollen ankles, weak arches, cold feet, weakness in legs, leg cramps. |
| | SACRUM | Hip bones, buttocks. |
| COCCYX | Rectum, anus. | Hemorrhoids or piles, pruritus or itching, pain at end of spine on sitting. |

This chart is a simplification and is not intended to be diagnostic. Vertebral misalignments may or may not cause the effects or conditions at the levels listed. Most body systems have more than one nerve supply and many nerve innervations overlap. The kind of complication will depend on the type of nerve interference, (Sensory, Motor or Trophic) the degree of nerve injury and the length of time nerve disturbance is present.

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| SPINAL COLUMN SIDE VIEW | AREAS SUPPLIED BY NERVES | POSSIBLE EFFECTS OR CONDITIONS |
|----------------------------|---|--|
| CERVICAL SPINE | 1 C Blood supply to the head, the pituitary gland, the scalp, bones of the face, the brain itself, inner and middle ear, the sympathetic nervous system. | Headaches, nervousness, insomnia, head colds, high blood pressure, migraine headaches, mental conditions, nervous breakdowns, amnesia, epilepsy, chronic tiredness, dizziness. |
| | 2 C Eyes, optic nerve, auditory nerve, sinuses, mastoid bones, tongue, forehead. | Sinus trouble, allergies, crossed eyes, deafness, eye troubles, earache, fainting spells, certain cases of blindness. |
| | 3 C Cheeks, outer ear, face bones, teeth, trifacial nerve. | NECK REGION Neuralgia, neuritis, acne or pimples, eczema. |
| | 4 C Nose, lips, mouth, eustachian tube, mucous membranes. | |
| | 5 C Vocal cords, neck glands, pharynx. | Laryngitis, hoarseness, throat conditions like a sore throat, etc. |
| | 6 C Neck muscles, shoulders, tonsils. | Stiff neck, pain in upper arm, tonsillitis, whooping cough, croup. |
| | 7 C Thyroid gland, bursa in the shoulders, the elbows. | Bursitis, colds, thyroid conditions, goiter, tennis elbow, tendinitis. |
| THORACIC SPINE | 1 T Arms from the elbows down, including the hands, wrists and fingers, also the esophagus and trachea. | Asthma, cough, difficult breathing, shortness of breath, pain in lower arms and hands, symptoms similar to carpal tunnel syndrome. |
| | 2 T Heart including its valves and covering, also coronary arteries. | Functional heart conditions and certain chest pains. |
| | 3 T Lungs, bronchial tubes, pleura, chest, breast, nipples. | Bronchitis, pleurisy, pneumonia, congestion, influenza, grip. |
| | 4 T Gall bladder and common duct. | Gall bladder conditions, jaundice, shingles. |
| | 5 T Liver, solar plexus, blood. | Liver conditions, fevers, low blood pressure, anemia, poor circulation, arthritis. |
| | 6 T Stomach. | MID-BACK Stomach troubles including nervous stomach, indigestion, heartburn, dyspepsia, etc. |
| | 7 T Pancreas, islands of Langerhans, duodenum. | |
| | 8 T Spleen, diaphragm. | Lowered resistance, acute and chronic infections, hiccoughs. |
| | 9 T Adrenals or supra-renals. | Allergies, hives, hypertension, anemia, hypoglycemia, obesity, hair loss. |
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| | 3 L Sex organs, ovaries or testicles, uterus, bladder, knee. | LOW BACK Bladder troubles, menstrual troubles, miscarriages, bed wetting, impotency, change of life symptoms, many knee pains. |
| | 4 L Prostate gland, muscles of the lower back, sciatic nerve. | |
| | 5 L Lower legs, ankle, feet, toes, arches. | Sciatica, lumbago, difficult, painful or too frequent urination, backaches. |
| | | |

Example: As Stomach Becomes Sick, Impedance Around It Spreads to Skin and Spine via Acupuncture Meridians and Perineural Nervous System. It is Represented on the Skin as Sticky Areas of Increased Impedance.



Electro-Acupuncture According to Voll

| Value | Significance |
|--------------|-------------------------------------|
| 90-100 | Whole organ inflamed |
| 80-89 | Partial organ inflamed |
| 70-79 | Cumulative irritation |
| 60-69 | Physiological irritant |
| 48-59 | Normal |
| 40-47 | Incipient degeneration |
| 30-39 | Serious, pre-malignant degeneration |
| 20-29 | Advanced degeneration/malignancy |
| <20 | Degeneration in final stages |

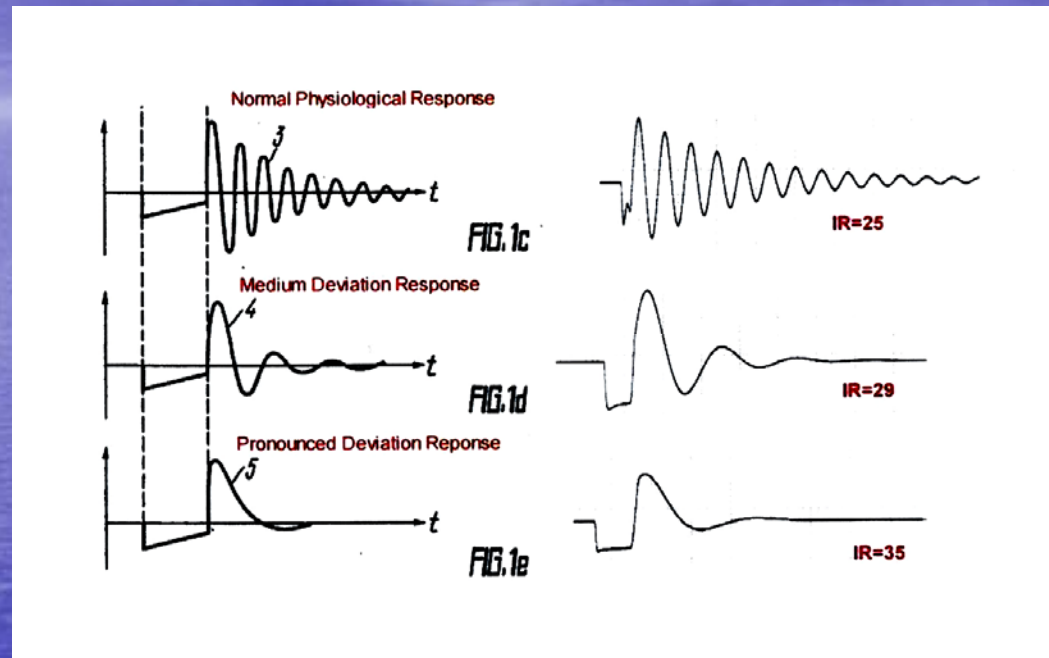
Tennant Biomodulator™ Impedance/Capacitance (Initial Reaction) Readings

| Initial Reaction | Corridor of IR Readings | Modulation | Body Response to Adaptive Reactions | Status |
|------------------|-------------------------|------------|-------------------------------------|-----------------------|
| >60 | IV | 1:1 | Acute Stress or Hyperactivation | Inflamed |
| 45-60 | III | 2:1 | Increased Activation | Irritant |
| 25-45 | II | 3:1 | Quiet Activation | Average |
| 18-25 | I | 4:1 | Training | Degeneration |
| <18 | 0 | 5:1 | Chronic Stress or Non-reactive | Advanced Degenerative |

Tennant Biomodulator™ Impedance/Capacitance (Initial Reaction) Readings

| Initial Reaction | Color | Frequency | Sound | Status |
|------------------|-------------------|-----------|---------------|--------------------------|
| >60 | Red (Erythema) | 350 Hz | Louder | Inflamed |
| 45-60 | Pink | 121 Hz. | Loud | Irritant |
| 25-45 | Normal | 59.3 Hz. | Sound Present | Average |
| 18-25 | Pale | 29.7 Hz. | Losing Sound | Degeneration |
| <18 | White | 15 Hz. | Sound Absent | Advanced Degenerative |

Energetic Medicine Concepts



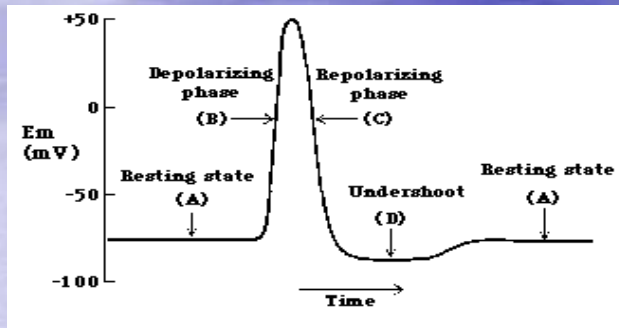
The Tennant Biomodulator™ measures the tissue impedance/capacitance. It then provides the power to penetrate the impedance and modulate the cell's potential back to normal via biofeedback.

Using Impedance Measurement to Reflect Cellular Voltage, Amperage, and thus Cellular Function

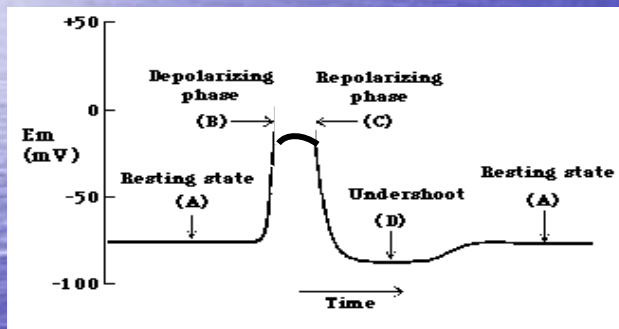
- All cells have potentials. We are more acquainted with potentials of muscle and nerve cells because the potential moves down the cells in those cell types.
- Because of ohm's law, measurement of impedance helps us understand what the cellular/organ potentials would look like if we could apply electrodes to the organs.
- The following slide suggests what that would look like.

Cellular (Organ) Action Potentials

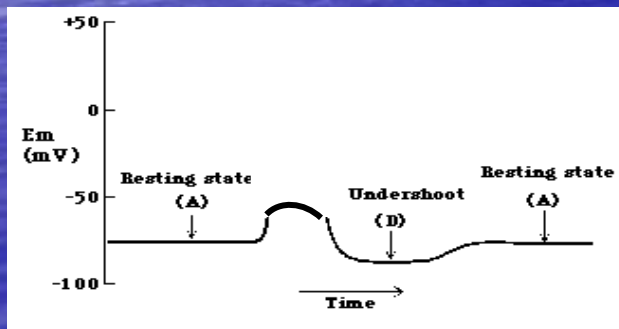
Normal Cell (Organ System)



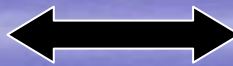
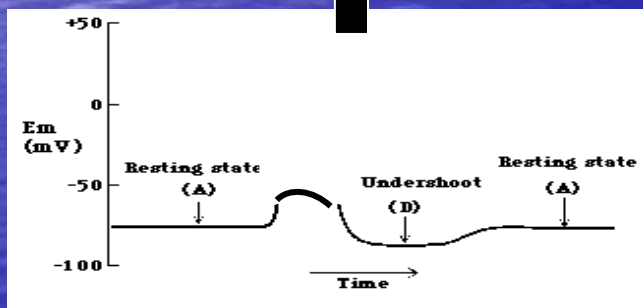
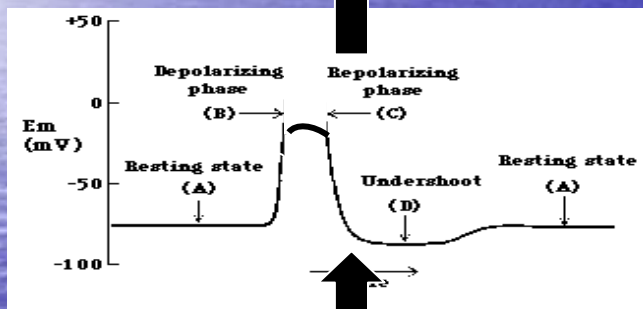
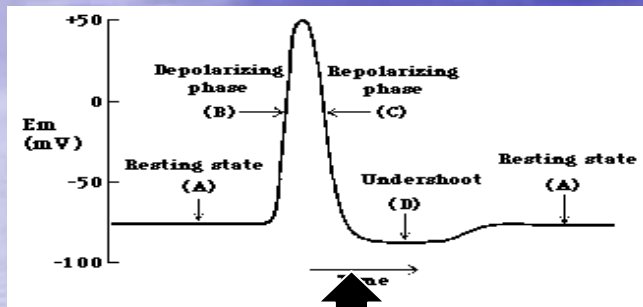
Sick Cell (Organ System)



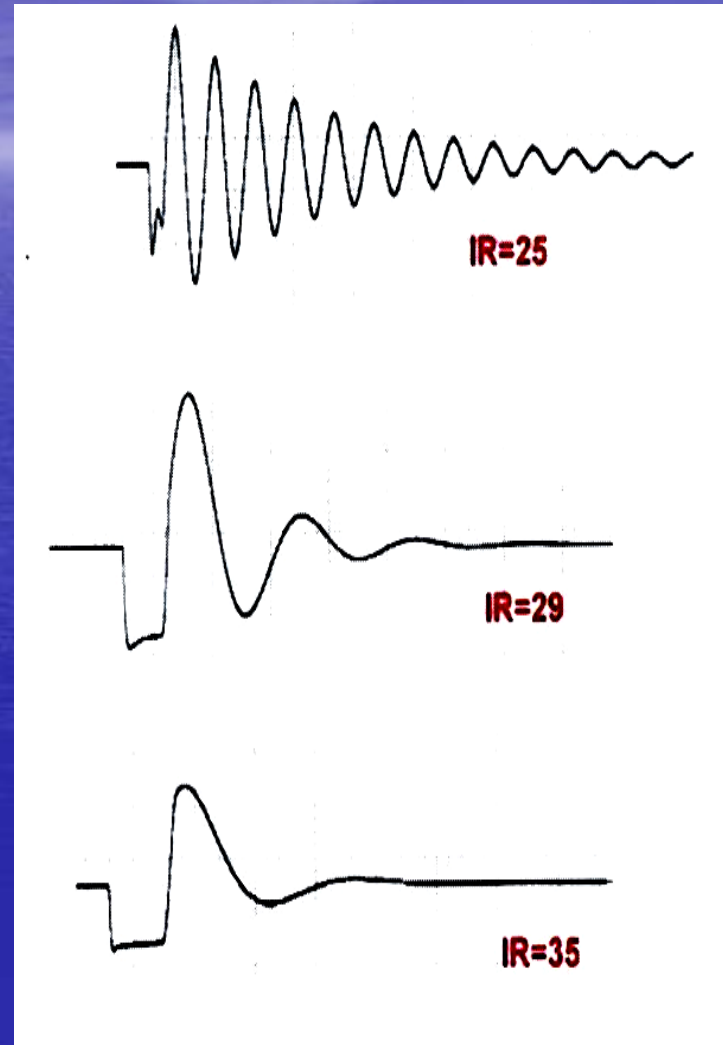
Sicker Cell (Organ System)



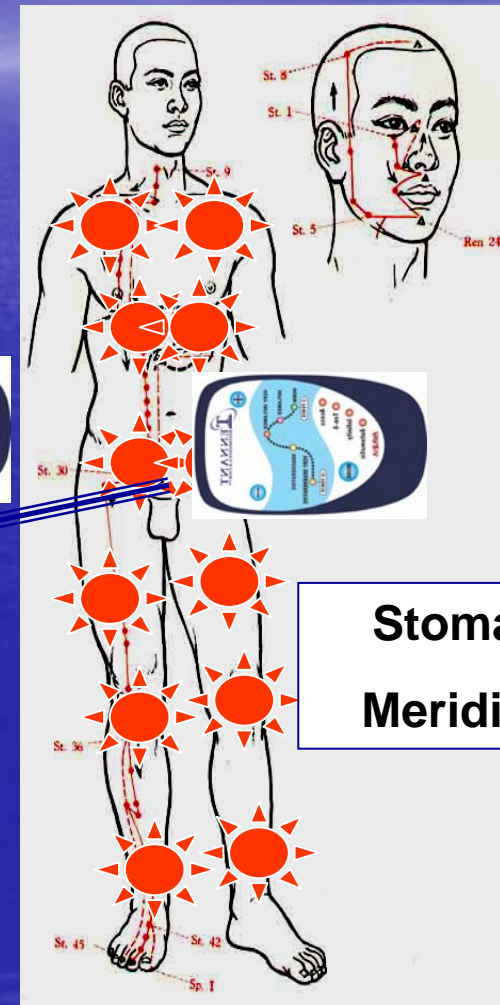
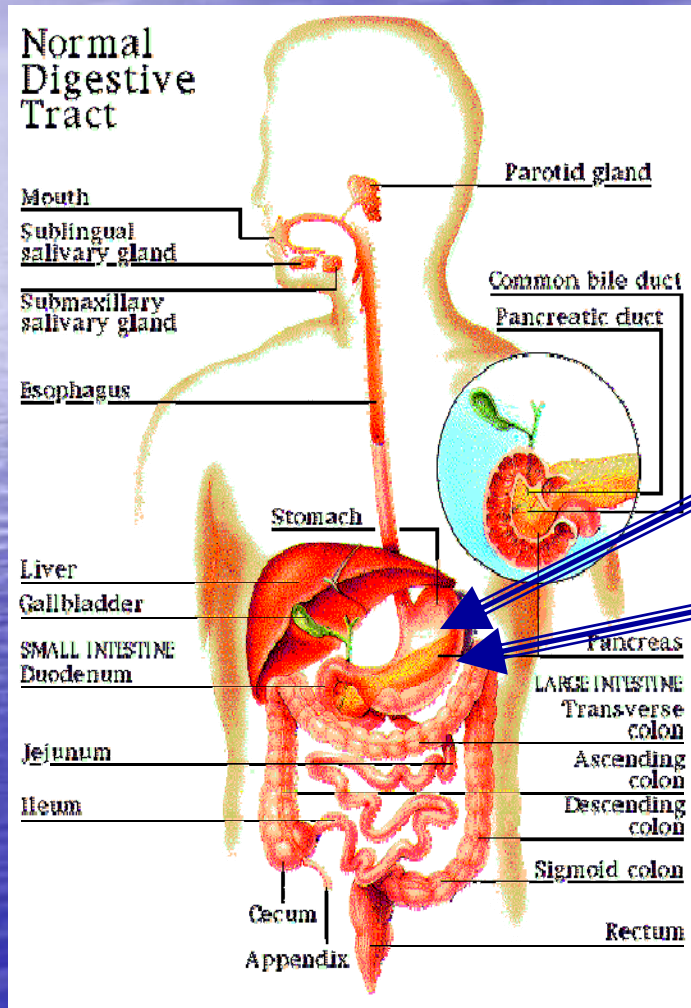
Modulation Of Cellular (Organ) Potentials Back To Normal With Biofeedback



Biofeedback
k



Example: Modulation From Biofeedback Flows To Deep Organs Via Acupuncture Meridians And Perineural Nervous System.



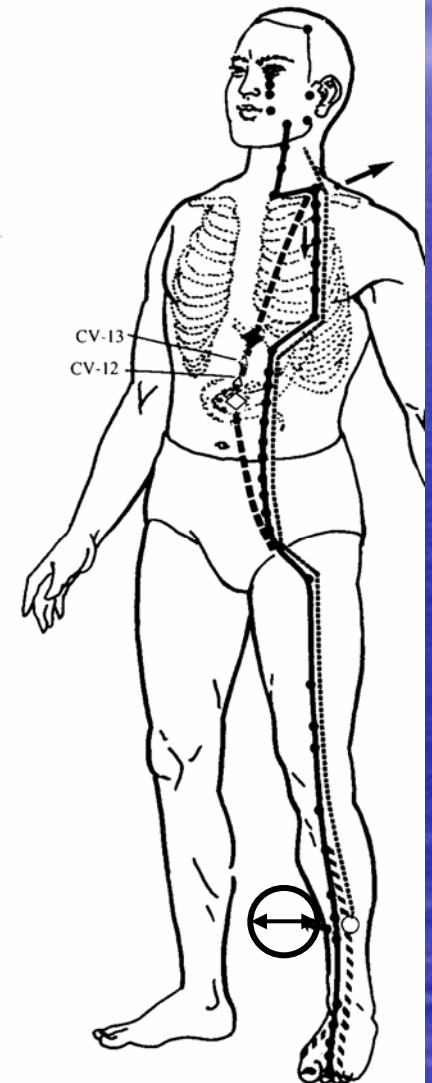
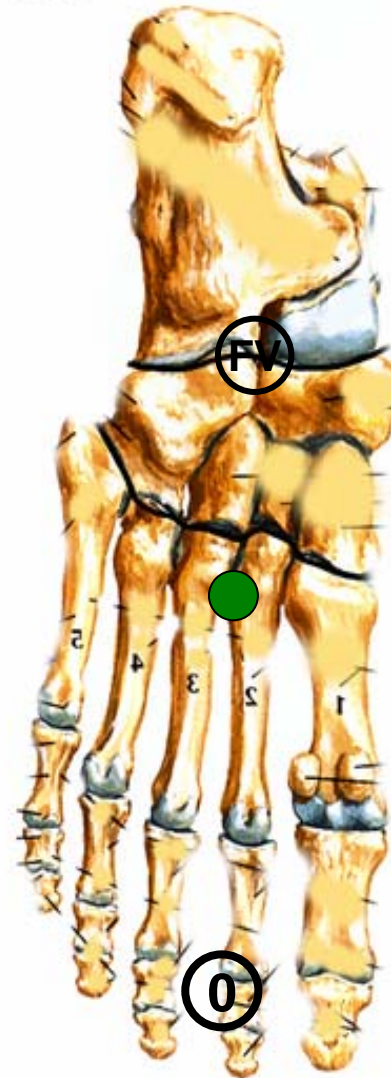
Using Biofeedback to Treat Nakatani Points Stomach

Source: ST-42: At the highest point of the dorsum of the foot in the depression between the 2nd-3rd metatarsal bones and the cuneiform bone.

Sedate: ST-45: On the lateral side of the 2nd toe about 0.1" proximal to the corner of the nail. (0)

Tonify: ST-41: At the junction of the dorsum of the foot and the leg between the tendons of the long extensor muscle of the toes and the long extensor muscle of the great toe approximately at the level of the tip of the external malleolus. (FV)

Balance: ST-40: 8" below ST-35 about one finger's breadth lateral to ST-38 (↔)



Cell Biology

History of Cellular Energetics

- 1926, Lakhovsky proposed that cells, like a child's swing, needs a small amount of energy to keep its motion. He said that is provided by cosmic rays (zero-point field).
- Lakhovsky proposed that microbes vibrate at different frequencies than cells. If the vibration of microbes is stronger than the cells, disease occurs.
- He designed a “Radio-Cellulo-Oscillator” to deliver multiple frequencies to the body to amplify cellular vibrations.

Cell Biology

History of Cellular Energetics

- 1934, Lakhovsky patented his “Multiple Wave Oscillator” to deliver frequencies without using a radio carrier. It created frequencies and harmonics from 20 Hz to 20 GHz. His devices routinely eliminated cancer from plants and were reported to cure many illnesses in humans.

Lakhovsky and Plant Tumors Treated by Sound Frequencies



PHOTOGRAPH OF GERANIUM TREATED BY MEANS OF AN OPEN OSCILLATING CIRCUIT

This plant, inoculated with cancer on 31st December 1924, was encircled with an open metallic circuit of 30 cm. diameter and kept in position by an ebonite rod. The photograph, taken two months after inoculation, that is to say at the end of January 1925, shows the cancerous tumour developing together with the plant which does not appear to be affected by it, whereas the control plants, inoculated with cancer on the same date and shown here beside the treated plant, have all perished.

Cell Biology

History of Cellular Energetics

- 1998, Kortein Wilden noted the following mechanism of cellular energy production:
 - All nutritive molecules are oxidized within the cell to pyruvate.
 - Pyruvate is taken into mitochondria where it disintegrates into carbon dioxide and water.
 - Molecular bond energy released is photon energy of UV, visible, and infrared light.
 - **This light is used by mitochondria to produce ATP for cellular energy.**

Cell Biology

History of Cellular Energetics

- Wilden uses low level lasers to increase cellular energy. His work is primarily in the area of hearing/tinnitus.
- Wilden's work supports findings of Lakhovsky and that providing the body with electromagnetic frequencies increases the body's energy (including its ATP.)

Infrared Light Diodes Increase Cellular ATP

**Ultimate
Portable (AC or DC)**

**For Even Larger Areas
A Real Time Saver**

5 wavelengths, 185 LED's
Infrared, Red, Green, Yellow & Orange
Rechargeable Battery Fanny Pack
AC adapter
Dimensions: 11-1/2" x6-1/4"
Treatment area: 21.6 sq. in.
3176.5 mW of Power
BatteryRun Time: Approx. 6 Hours
Weight: 2lbs. 8 oz.
Comes with Rugged carrying case
(Ultimate switchable to Blue Available)



**Sacral
Pressure
Sore**



**Three
Weeks
After
Light
Rx**



Six weeks of 2x/wk Rx

Healing Blankets / Rooms

Wilhelm Reich

- Wilhelm Reich was the scientist who discovered orgone energy (currently called “Zero-point field”) and developed the science of Orgonomy. He was born in 1897 and died in 1957. His scientific work spans the period from the 1920's through the 1950's.
- Reich developed a “closet” with five layers of materials in the walls (duplicate-stacking of steel wool and rock wool) . He called it an “accumulator”.

Rock Wool =A substance outwardly resembling wool, presenting a mass of fine interlaced filaments, made by subjecting furnace slag (or certain rocks) while molten to a strong blast. It is both insect-proof and fireproof.

Healing Blankets / Rooms

Wilhelm Reich

- Temperatures of individuals who sit in an orgone accumulator rise quite substantially.
- Paul and Jean Ritter report the results of 45 separate observations with nine different individuals as subjects.
- They showed an average rise in temperature of 0.48 degrees Fahrenheit in consequence of sitting an average of approximately 40 minutes in an accumulator.
- Keeping subjects ignorant of the purpose of the experiment did not prevent the rise from occurring, but substituting a plain insulated box for the accumulator did.

Healing Blankets / Rooms

Wilhelm Reich

- These “Healing Blankets / Closets” are capacitors that increase the amount of electrons available to the body from the atmosphere plus those normally radiated by the body.
- Increased body temperature helps kill microorganisms.



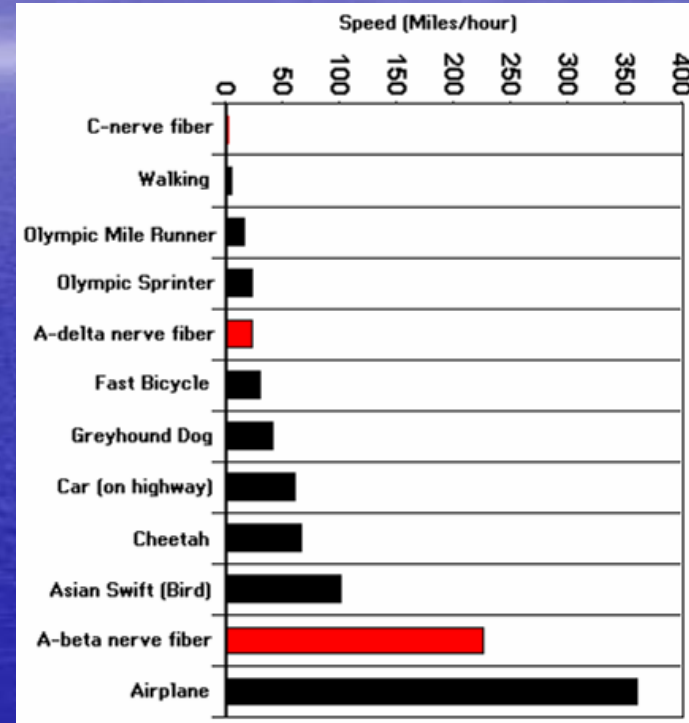
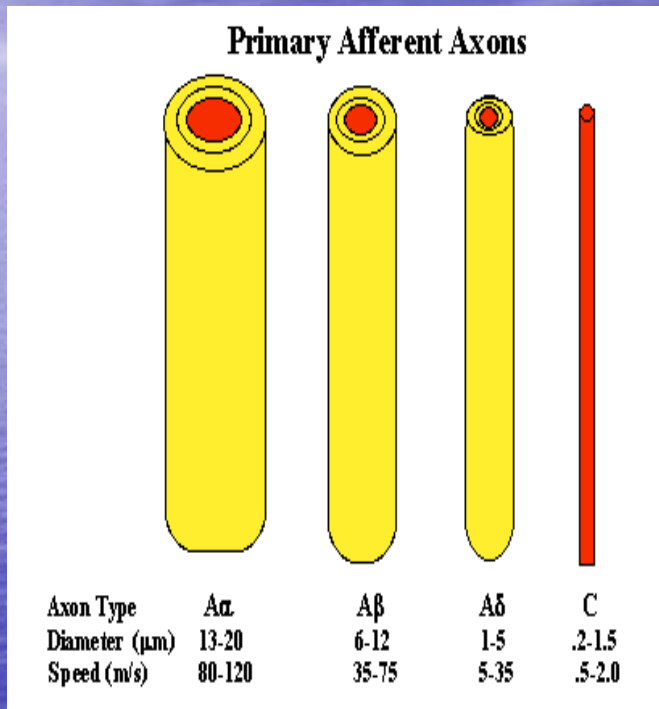


Tapping the Body's Healing Potential

Nerve Fibers and Neuro-regulatory Peptides

- A-alpha nerve fibers carry information related to proprioception (muscle sense).
- A-beta nerve fibers carry information related to touch.
- A-delta nerve fibers carry information related to pain and temperature.
- C-nerve fibers carry information related to pain, temperature and itch.

Nerve Fibers and Neuro-regulatory Peptides



The larger the diameter, the faster the transmission speed.

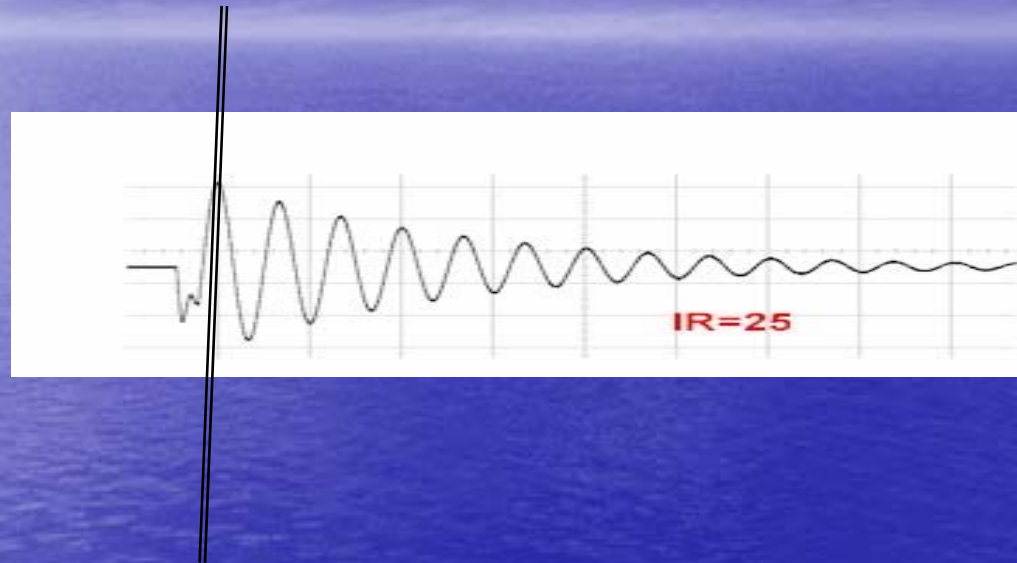
Nerve Fibers and Neuro-regulatory Peptides

- The value of the threshold of electrical excitement is in inverse proportion to the diameter of the fiber.
- The force of current required to activate C-fibers should therefore be 15-40 times higher than for A-alpha-fibers.
- The force of current in C-fibers is 225-1600 times less than in A-fibers.
- Correspondingly, the force of current necessary to excite C-fibers should be in corresponding proportion (225 – 1600) higher.

Nerve Fibers and Neuro-regulatory Peptides

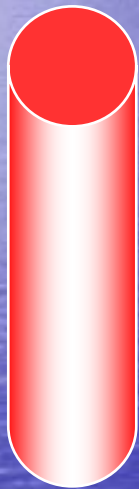
- The excitement of thin fibers, including C-fibers, is considerably higher than with other methods of electro-therapy.
- Normal TENS units stimulate primarily A-fibers, not C-fibers.
- Biomodulator can stimulate C-fibers.
- C-fibers produce the neuro-peptides that regulate the rest of the body!!!!

Nerve Fibers and Neuro-regulatory Peptides



This unique very high amplitude signal stimulates C-fibers to produce Regulatory Neuro-peptides; the damping keeps the body from adapting to the signal. None of this is true with TENS units.

New Proof of How We Heal



Healing Items:

- Neuropeptides (RP)
- RBC
- WBC
- Proteins
- Fats



Injured areas are electropositive. That attracts the things needed to heal.

Current of Injury Becomes Negative → Chronic Disease

Healing Items:

Repelled by
Negative Charge



Injury

Causes of Switch to Electronegativity:

1. Loss of electrons in membranes due to increased impedance from chronic swelling.
2. Bleeding (RBC's are electronegative).
3. Cytoplasm (electronegative) dumped into extracellular fluid as membranes rupture.

How Electronics Restore Healing in Chronic Disease

Electronic Devices restore electrons to membranes = restores normal cell electronics.



Common Ways Electrons are Given to the Human Body

- Alkaline water
- Uncooked food
- Touching the earth
- Sunshine
- Moving water
- Touching another living thing (e.g., people, pets, trees, plants)

Common Ways Electrons are Given to the Human Body

- **Hugs**: electrons transferred from one body to another by the acupuncture meridians.
- **Reflexology**: like hugs only transmitted from hands to acupuncture points.
- **Acupuncture**: needle transfers electrons from therapist and/or air to meridians.
- **Moxibustion**: burning material around acupuncture needle transfers both electrons and infrared light.

Common Ways Electrons are Taken From the Human Body

- Acidic water (tap water, chlorinated water, fluoride, most bottled water)
- Carbonated beverages
- Caffeinated beverages (pop, coffee, tea)
- Alcoholic beverages
- Cooked food
- Processed food

Common Ways Electrons are Taken from the Human Body

- **Healers/doctors** who touch their patients lose electrons to patient.
- **Hugs:** transfers electrons from one person to another.
- **Parent holding sick child:** child gets well quicker and parent left tired.
- **Moving air:** wind, air conditioning, fans, convertibles, hair dryers.

Common Ways Light is Given to the Human Body (Increases ATP)

- Sunshine
- Food: all food contains light (Popp and Ruth).
- Low-level lasers/diodes

Things to Do to Start Getting Healthy

- Drink water - just water that is alkaline
- Stop drinking
 - Coffee = blocks over 350 metabolic processes
 - Tea = blocks over 350 metabolic processes
 - Alcohol = blocks over 400 metabolic processes
- Stop eating plastic fats (partially hydrogenated fats)

Things to Do to Start Getting Healthy

- Go through your pantry and throw away:
 - Partially hydrogenated oils
 - NutraSweet (aspartame)
 - Splenda
 - MSG
 - Any ingredient that has a number in it.
 - Anything that says, “Low carbohydrate”
 - Anything that says, “Low fat”

Things to Do to Start Getting Healthy

- If God made it, eat it.
- If man made it, avoid it.
- If it will spoil, it's likely good for you.
- If it won't spoil, it's likely bad for you.
- Use whole milk and butter, not low-fat milk and margarine (plastic). Use unpasteurized milk if you can get it = heating changes the fats and proteins and makes them toxic.

The Cholesterol Lie

- If you eat a diet with absolutely no cholesterol in it, your blood cholesterol won't change 5%.
- If you eat buckets of cholesterol, your blood cholesterol won't change 5%.
- The liver makes the amount of cholesterol it needs.
- If you have a high cholesterol, your liver is trying to cleanse itself of toxins = don't suppress it.
- If you have a low cholesterol, it means your liver is too sick to keep you healthy.

The Cholesterol Lie

- The only connection between heart disease and cholesterol is whether you have enough toxins in your liver (raises cholesterol) to cause inflammation in your blood vessels.
- The correlation is between inflammation (C-reactive protein) and heart disease.
- Eating good fats doesn't make you fat = it makes you healthy since the cell membranes of every cell are made of fats.
- Eating plastic fats (partially hydrogenated = trans fats) makes you fat and gives you diabetes.
- If you are sick or fat or have most diseases, it is likely you are good-fat deficient.

The Cholesterol Lie

- Without good cell membranes, your cells won't work and won't hold voltage.
- To get well, you must restore yourself with good fats and voltage.
- Of course you will also need water, proteins, minerals, and vitamins (anti-oxidants).
- Perhaps the most important thing you can do to get healthy is to eat 2-12 eggs/day = eggs contain everything needed for life.
- If you can't eat eggs, it means your liver and gall bladder need to be cleared of the toxins that keep them from working.

The Fats You Need

| Common Name | Foods | Nomenclature | Type | Effect on membrane |
|----------------------------------|---|------------------|-----------------|--------------------|
| Caprylic | | 8:00 | Saturated (SFA) | Rigidity |
| Capric | Coconut | 10:00 | Saturated (SFA) | Rigidity |
| Lauric | Coconut, palm | 10:00 | Saturated (SFA) | Rigidity |
| Myristic | Coconut, palm | 12:00 | Saturated (SFA) | Rigidity |
| Palmitic | Palm, beef, mutton, butter, cocoa, lard, eggs | 16:00 | Saturated (SFA) | Rigidity |
| Stearic | Cocoa, beef, mutton, eggs, palm, lard | 18:00 | Saturated (SFA) | Rigidity |
| Oleic (Omega-9) | Safflower (high oleic), olive, canola, sesame, rice, butter, corn | 18:1, ω 9 | PUFA | Fluid |
| Linoleic (LA) (Omega-6) | Safflower, Sunflower, soy, oat, peanut, lard, corn | 18:2, ω 6 | PUFA | Fluid |
| Gamma-linolenic (GLA) (Omega-6) | Borage, primrose, black currant, hemp | 18:3, ω 6 | PUFA | Fluid |
| Alpha-linolenic (ALA) (Omega-3) | Flax, canola, soy, hemp | 18:3, ω 3 | PUFA | Fluid |
| Arachidonic (AA) (Omega-6) | Eggs, butter, beef, mutton, shellfish | 20:4, ω 6 | HUFA | Fluid |
| Eicosapentaenoic (EPA) (Omega-3) | Fish oil, cold water fish | 20:5, ω 3 | HUFA | Fluid |
| Docosahexaenoic (DHA) (Omega-3) | Fish oil, cold water fish | 22:6, ω 3 | HUFA | Fluid |
| | | | | |
| | PUFA = 2-3 double bonds | | | |
| | HUFA = >3 double bonds | | | |

We Live In A Toxic Environment

- Pollution and pollutants are a serious problem.
- **Pollution and its effects can be found in virtually every place on earth.**



Some of it we can see...

- **Air** pollution is a visible stain covering our major cities.
- **Water** pollution fouls our beaches, rivers and streams.



Environmental Toxins

(US EPA 1989 Toxics Release Inventory National Report)



- 550,000,000 lbs of industrial chemicals were dumped into public sewage storage.
- 1,000,000,000 lbs of chemical released into the ground.
- 188,000,000 lbs of chemicals discharged into surface waters.
- 2,400,000,000 lbs of air emissions.
- **5,705,670,380 lbs of chemicals in 1 year.**

Slide from Standard Process

We are Drowning in it ...

- The chemicals pumped into our environment in the US in one year alone (1989) would fill a line of semi-trucks stretching from Los Angeles, California to Des Moines, Iowa.

But some of it we can't

- Invisible CFC's from aerosol sprays put a hole in the protective ozone layer.
- Out gassing from chemicals used in paints, cleaners, solvents and fuels may contribute to health problems in some people.

Switch to non-toxic alternatives

- “Orange Guard”-Natural Pest Control
- Vinegar-weed killer
- Aromatherapy
- Baking soda and vinegar
- Steamer for clothes
- www.thedirtdoctor.com



How does it affect us?

- DDT found in breast milk
- PCBs, (polychlorinated biphenyls), are mixtures of chemicals and potentially cancer-causing. They build up in fatty tissue
- Damage DNA
- Toxic chemicals and heavy metals get into the brain and nervous tissue

Toxic Release in Dallas in 2000

<http://d1.rtk.net/tri/area.php>

- Reporting Year: 2000
- Facility Name City State Total Releases (lbs) Total Waste (lbs) AG MOLDING COMPOUNDS DALLASTX147,390.00 149,638.00 AIR LIQUIDE AMERICA CORP DALLASTX6,456.00 994,003.00 ARGAS SOUTHWEST INC DALLASTX5.00 10.00 AMERICANA FOODS INC DALLASTX10,900.00 40,090.00 APAC TEXAS INC DALLASTX683.741,214.75 AQUA BLEND INC DALLASTX0.000.00 ASHLAND SPECIALTY CHEMICAL CO DALLASTX1,711.00 118,169.00 BRAKE PARTS INC DALLASTX18,694.00 128,642.00 BRENNTAG SOUTHWEST INC DALLASTX9,102.00 21,883.00 BUCKLEY OIL CO DALLASTX9,202.806,799.00 BUILDING MATERIALS CORP. OF AMERICA (DBA GAF MATERIALS CORP.) DALLASTX0.53879.12 BWAY CORP DALLASTX7,280.00 329,521.00 CERPROBE CORP DALLASTX1,250.00 46,670.00 CHEM CENTRAL DALLASTX8,425.00 20,041.00 COMET STEEL INC DALLASTX0.000.00 CONNECTOR SERVICE CORP DALLASTX50.00 50.00 CRANE PLUMBING DALLASTX10,000.00 10,000.00 DAL CHROME CO DALLASTX0.00 23,653.00 DAL-TILE CORP DALLASTX121,304.00 263,441.00 DALLAS SEMICONDUCTOR CORP DALLASTX9,932.00 162,869.00 DALLAS WOODCRAFT INC DALLASTX48,910.00 49,600.00 DAP INC DALLASTX0.00 1,196.00 DARLING INTL INC DALLASTX0.00 17,000.00 DRS INFRARED TECHS L P DALLASTX7,531.00 51,493.25 EAGLE CIRCUITS INC DALLASTX10.00 9,315.00 EMF CO INC DALLASTX1,708.00 54,678.00 FOAMEX CARPET CUSHION INC DALLASTX3.00 3.00 GE ENGINE SERVICES DALLAS L P DALLASTX30.00 26,920.00 GO/DAN INDS DALLASTX0.000.00 H C IND INC (DBA RMAX) DALLASTX82,094.00 82,094.00 HARCROS CHEMICALS INC DALLASTX250.00 79.00 HEAT TREATMENT SERVICES INC DALLASTX9,646.00 13,325,072.00 HENSLEY INDS INC DALLASTX0.000.00 HOUSTON SOLVENTS & CHEMICALS CO. INC. DBA SS&C - DAN MORTON DALLASTX7,002.00 6,991.00 INX INTL INK CO DALLASTX0.000.00 IONES BLAIR CO DALLASTX9,704.00 219,057.00 KOCH GLITSCH INC DALLASTX510.00 127,546.00 MARLOW INC INC DALLASTX25,318.00 86,678.00 MARTIN SPROCKET & GEAR INC DALLASTX446.00 446.00 MASTER-HALCO INC DALLASTX500.00 3,951.00 MOTIVA DALLAS TERMINAL DALLASTX15,182.00 534,595.00 MURMUR CORP DALLASTX0.000.00 OAK FARMS DAIRY DALLASTX0.000.00 OCEANIC SYS INC DALLASTX12,139.00 12,139.00 OLIVER RUBBER CO DALLASTX515.00 26,785.00 OLIVER SALES CO DALLASTX0.000.00 PECORA CORP DALLASTX0.000.00 PETRA CHEMICAL CO DALLASTX750.00 500.00 PIERCE CHEMICALS ROYAL BOND CO DALLASTX1,000.00 5,936.00 PILGRIM'S PRIDE CORP DALLAS PROCESSING PLANT DALLASTX5,000.00 80,000.00 RAYTHEON CO LEMMON AVENUE DALLASTX500.00 45,869.00 REDDY ICE DALLAS DALLASTX67,000.00 67,000.00 REICHOLD INC DALLASTX500.000.00 ROCK-TENN CO MILL DIV DALLASTX13,053.00 13,053.00 ROCORE SOUTHWEST INC DALLASTX27.00 25,814.00 ROYAL CHEMICAL CO DALLASTX0.000.00 SCHPEPPS DAIRY DALLASTX0.000.00 SECURITY DBS DALLASTX3,940.00 66,108.00 SEEGOTT INC CROM DALLASTX1,847.00 1,846.00 SUN CHEMICAL CORP U.S. INK DIV DALLASTX0.000.00 SUNBELT CHEMICALS DALLASTX54,946.00 54,946.00 TAMKO ROOFING PRODS INC DALLASTX13.00 141.00 TEXAS FIBERS DALLASTX17,017.00 17,012.13 TEXAS INSTRUMENTS INC DALLASTX11,773.00 1,466,976.00 TRINITY INDS INC PLANT # 74 DALLASTX0.000.00 TRIQUINT SEMICONDUCTOR TEXAS INC DALLASTX21,702.00 132,864.00 UNITED EL CHEM IND INC DALLASTX8,800.00 8,800.00 US PLATING L P DALLASTX0.00 4,096.00 VALSPAR INC DALLASTX800.00 51,057.00 VALVOLINE CO DIRECT MARKET DALLAS DALLASTX0.000.00 VAN WATERS & ROGERS INC DALLASTX1,910.00 1,910.00 VIRGINIA KMP CORP DALLASTX484.00 15,624.00 VOUGHT AIRCRAFT INDS INC DALLASTX52,915.00 467,775.00 WELLMARK INTL DALLASTX10.00 495.00

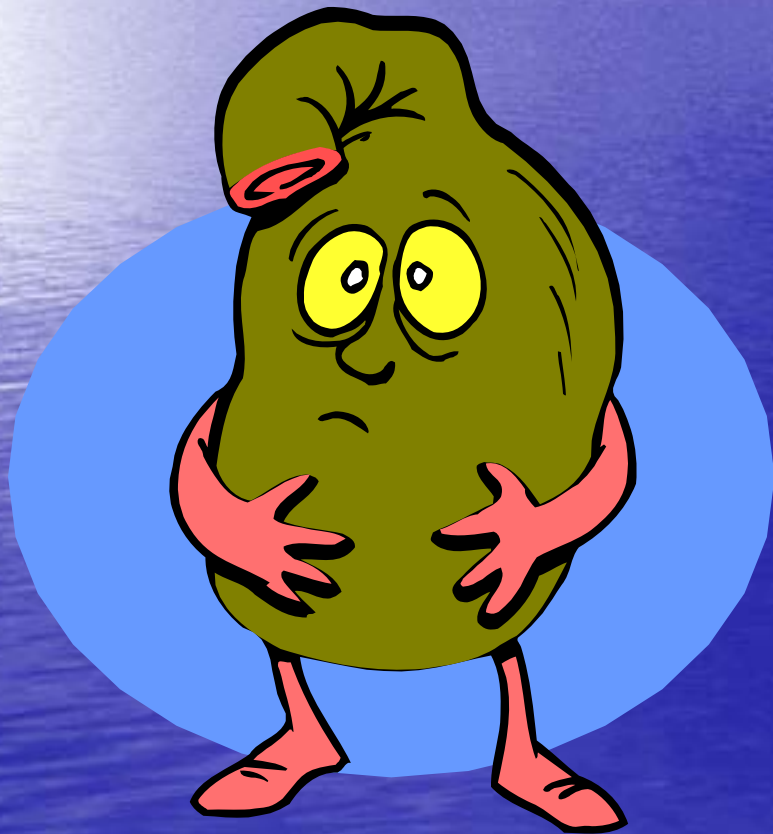
- **Total Releases** **847,871.00 (lbs)**
- **Total Waste** **18,581,033.00 (lbs)**

Some we even choose.

- Cigarettes, alcohol, coffee, tea, sodas, refined sugar, NutraSweet, Splenda, trans-fats, poor diet add their weight to the toxic burden we already carry.
- **These are lifestyle choices we make for ourselves,** and can thus exercise control over.



Ingested Toxins



In the U.S. we allow over 10,000 chemical additives in our food supply.

The average American consumes:

14 lbs of additives per year.

130 pounds of sugar.

8 pounds of salt.

Ref: "Do You Know What Your Patients Eat?" Monograph, E. Cheraskin, W. Ringsdorf, Dept. Oral Med., U. Alabama (1976).

Coca Cola

- The active ingredient in Coke is phosphoric acid.

Its pH is 2.8. It will **leach minerals** at a high rate to alkalize the acidity. Phosphoric acid also leaches calcium from bones and is a major contributor to the rising increase in osteoporosis.



Sugar-Immune Suppression

- Sugar can cost you more than your teeth. At an average consumption rate of 130 lbs. per person per year, sugar takes the cake, **cell mediated immunity is depressed by 50%** for 120 minutes after sugar ingestion (75 grams).
- *Mechanism of action: Glucose competes with absorption of Vitamin C into the cell.*

Bernstein, J., et al, Depression of lymphocyte transformation following oral glucose ingestion, Am. J. Clin. Nutr., 30:613, 1977.

Refined Sugar

- A 100g portion of sugar can significantly reduce the capacity of white blood cells to engulf bacteria.
- Maximum immune suppression occurs one to two hours after ingestion and remains suppressed for up to five hours after feeding.
- ***Mechanism of action: Glucose competes with absorption of Vitamin C into the cell.***

Bernstein, J., et al, Depression of lymphocyte transformation following oral glucose ingestion, Am. J. Clin. Nutr., 30:613, 1977.



ADAM.

<http://www.drkoop.com/imagepages/9478.htm>

Slide from Standard Process

We pay the price in our health.

- **These substances (toxins) may cause changes in the way your body functions.**
- **Pollutants and their effects have been linked to problems ranging from increased respiratory problems to increased risk to a variety of cancers.**

PHYSICAL

- Injury
- Inflammation
- Eccentric exercise

NUTRITIONAL

- Preservatives
- Additives
- Alcohol
- Trans-fatty acids



INFECTION

(Endo- & Exo-toxins)

- Bacterial
- Fungal
- Parasitic

CHEMICAL

- Xenobiotics
- Organics
- Toxic elements

Chronic Illness is Due to Loss of Voltage

- We drink acidic water. Acidic water can't enter cells so most are dehydrated.
- We think various beverages are substitutes for water.
- We use caffeine and alcohol.
- We eat only cooked food. When we eat fresh food, it is usually salad made with iceberg lettuce = like eating newspaper.

Chronic Illness is Due to Loss of Voltage

- We rarely get out in the sun. If we do, we use sunblock so we don't get benefits.
- We almost never touch the earth. We wear rubber soles on our shoes and ride in cars with rubber tires.
- We rarely lean against a tree or touch a flower that is growing.

Chronic Illness is Due to Loss of Voltage

- We keep looking for a magic pill when what we need is voltage.
- For organs (capacitors) to store voltage, they must have water and minerals.
- The closest thing to a magic pill is anti-oxidants because they are electron donor that provide electrons to neutralize free radicals. Free radicals are chemicals that are missing an electron and take it from wherever they can find one.

Pathway to Disease



Disease Begins With Activation of the Sympathetic Nervous System

1. Actual Danger
2. Fear/Victimimized
3. pH (Low Voltage Diet)
4. Food Allergies
5. Trauma (Pain)
6. Toxic environment
7. Dental bite incorrect
8. Neurotoxins (aspartame, MSG, mercury, etc.)
9. Head trauma → loss of cranio-sacral pump
10. Sixty-cycle alternating current fields.

Sympathetic-On



Parasympathetic-Off

Tennant Rules

- Correct dehydration
- Look for dental connection
- Treat pain
- Get control of Autonomic Nervous System
 - Treat Bowling Ball or do Little Wings
 - Restore neurochemicals
 - Correct reasons for sympathetic-on
- Restore Endocrine System (Chakras)
 - Look for “switch” on Nakatani
 - Look for “sticky” with Collins
 - Rx with Laser

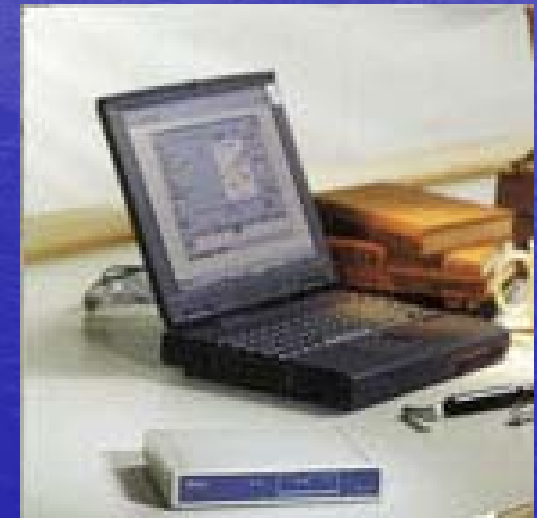
Tennant Rules

- Eliminate Toxins
 - Rx with Collins
 - Infrared sauna
 - Chelation
- Restore Body Voltage
 - Restore minerals
 - Tennant Biomodulator™ on spine

Tennant Rules

- Correct Organs
 - Tennant Biomodulator™ on Perineural Nervous System
 - Tennant Biomodulator™ on acupuncture meridians
- Eliminate Infections
 - Ultrasound Frequency therapy

NAKATANI: Measuring Deep Organ Function Via Acupuncture Meridians



MEAD

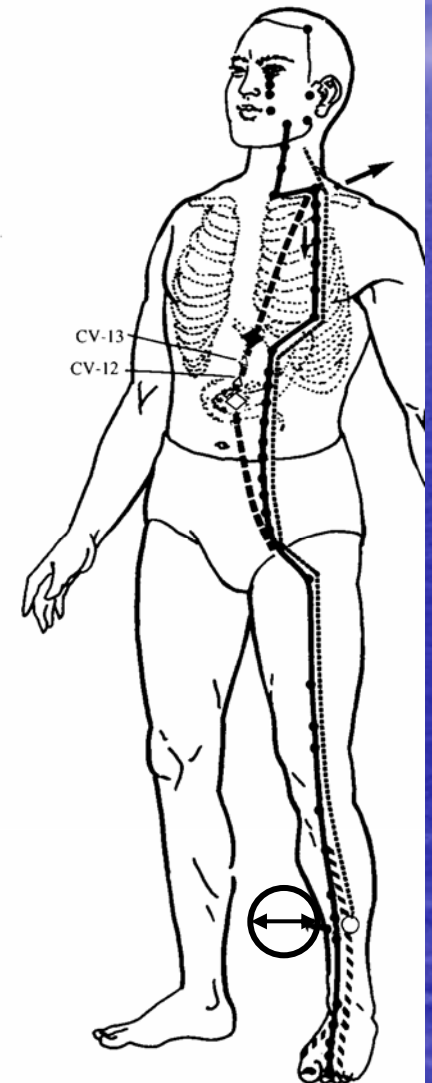
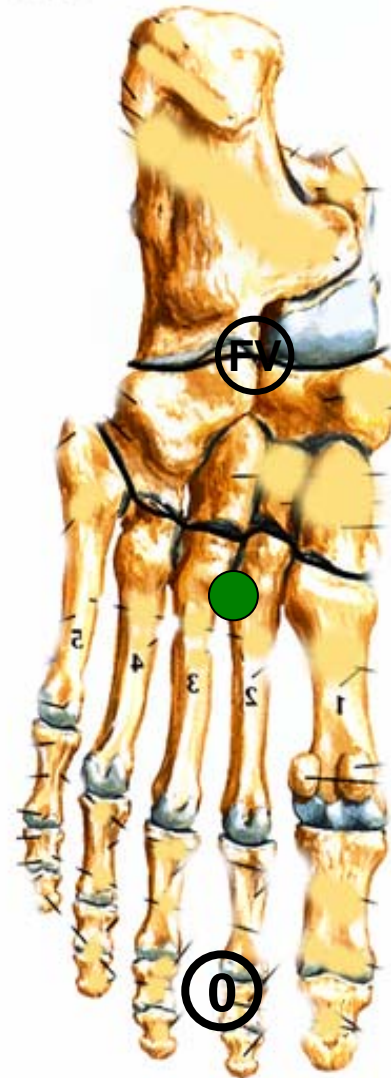
Using Tennant Biomodulator™ to Treat Nakatani Points Stomach

Source: ST-42: At the highest point of the dorsum of the foot in the depression between the 2nd-3rd metatarsal bones and the cuneiform bone.

Sedate: ST-45: On the lateral side of the 2nd toe about 0.1" proximal to the corner of the nail. (0)

Tonify: ST-41: At the junction of the dorsum of the foot and the leg between the tendons of the long extensor muscle of the toes and the long extensor muscle of the great toe approximately at the level of the tip of the external malleolus. (FV)

Balance: ST-40: 8" below ST-35 about one finger's breadth lateral to ST-38 (↔)



Tennant Biomodulator™



FDA Listed Device

- Tennant Biomodulator™: Biofeedback-controlled Electro-stimulator.
- Regulated by the US FDA under 21 CFR 882.5050.
- Generic Name: Device, Biofeedback, Product Code HCC, Class 2 exempt from 510(K) pre-market notification according to FDA Notice FR21ja98-84 as a battery-powered, professional use device for relaxation training and muscle education.

Technical Support

- E-Mail technical support at info@senergy.us
- See www.senergy.us for common questions and answers
- Call for assistance (calls will be returned as soon as possible)

972-580-0545

Energetic Medicine

- My apologies to any whose work I have quoted without recognition.
- My thanks to all who have taught me and to my Heavenly Father who has seen fit to allow me to follow this path to knowledge.

Recommended Reading

- *The Body Electric: Electromagnetism and the Foundation of Life* by Robert Becker (Author), Gary Selden (Author)
- *Cells, Gels and the Engines of Life* by Gerald H. Pollack
- *The Second Brain: A Groundbreaking New Understanding of Nervous Disorders of the Stomach and Intestine* by Michael D. Gershon

Recommended Reading

- *A Brief History of Time* by Stephen Hawking
- *Virtual Medicine: A New Dimension in Energy Healing* by Keith Scott-Mumby, Michael F. Kirkman
- *Energetic Medicine: The Scientific Basis* by James Oschman, PhD

Contents of this presentation are
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Thank you for joining us!