

#### Membrane Rejuvenation Therapy

**THE KEY TO HORMONE BALANCE, WHOLE BODY ENERGY, GLUCOSE METABOLISM BALANCE, AND DISEASE REVERSAL** By Dr. Jack Tips (Ph.D., C.C.N.)

ne of the great biological breakthroughs of the 20th Century was S.J. Singer & Garth Nicolson's 1972 design of the "Lipid Bi-Layer Fluid Mosaic Model" of cell membranes. Think about it – a moving mosaic, a design that artistically, kaleidoscopically rearranges itself according to what is needed. The fluid mosaic concept irrevocably changed our understanding of cellular anatomy, physiology,

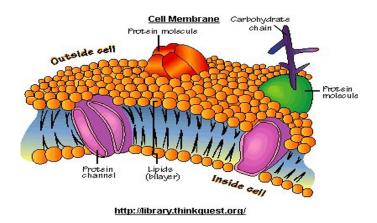


and behavior; and revealed something quite astounding – the actions of *cellular intelligence*<sup>1</sup>.

"Lipid Bilayer" means ers of fats (lipids) comprising

that there are two layers of fats (lipids) comprising a membrane. One side, the side that presents to the external environment, is "hydrophilic" – it loves water. The other side, the inner side of the membrane itself, is "hydrophobic" – it repels water. The part of the membrane that interfaces with the inner cell is hydrophilic. This is very helpful because that love/ hate dynamic helps control what can pass through the membrane as well as its ability to engage a processes of ion channels (proton pumps, and electron transport<sup>2</sup>) that create action and energy. The cell membranes are virtually charged with electricity and sing the body electric.

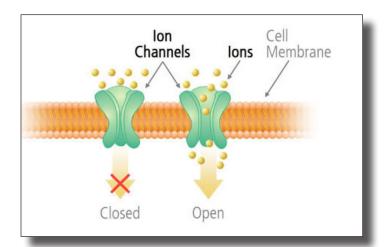
Now, forty years later, and based on hundreds of



thousands of experiments and studies, the "lipid bilayer" is a proven fact, is accepted worldwide; and that knowledge has opened our understanding of how hormones work, ATP (Adenosine TriPhosphate) is made, cells communicate with each other, and how the cell membrane's bioelectric differentials equate to the mysterious "bio-energy" discussed in Natural Health. Now we have the scientific basis for that mysterious, etheric bioenergy concept that the body is an arrangement of light and sound, has an aura and chakras whirling with the energy vortexes of life; and that great souls such as you, virtually resonate with crackling Vital Force.

I Cellular Intelligence – the innate ability of a cell membrane to function within the gestalt of biochemistry and bioenergetics with increased effectiveness, to choose, to think, to know, to make right decisions.

<sup>2</sup> See Research Reports: #7: ATP—The Energy of Life, and #8: Mitochondrial Biogenesis— A More Effective Method to Increase Life-Energy For Healing & Optimal Health



Why is cellular intelligence so astounding? It points to the "innate healing vitality" of the human being as something that is separate from (but including) the human brain. The body is directly responsive to bioenergetic influences, not just biochemical influences. Thus thoughts and feelings and energy frequencies have direct impact on the whole person; and so do molecules and chemical reactions that modern science studies.

Membranes define a space where there is a tightly controlled environment. They separate the outside realm from their inner sanctums. But membranes are so much more than a wrapper or barrier requiring molecular shibboleths to allow passage. They are a living "dynamic" – one that constantly shifts, undulates, bobs, thickens, thins, morphs, evolves, and changes with the activities of life. Cell membranes are "thinking" organs.

They choose, to a large extent, what gets in and what gets out of their controlled space. They communicate with other cells, and with the body at large. The plight of the cell in the 21st Century is that humankind has errantly found ways to invade the inner cell, despite the function and intelligence of the membrane. Cell phone radiations, nuclear radiations, nano-particles, hormone disruptors, plastics, genetically-modified foods, pesticides, and toxic chemicals can disturb the membrane function, create inflammation, and even trick the membranes and gain access to a human being's epigenetic and genetic processes.

Membranes respond to both the ambient outer environment, as well as their own inner domain; make decisions; communicate; and learn new behaviors. Cell membranes are alive, aware, and even prescient. They demonstrate *learned behaviors* that anticipate likely reactions. Membranes are where

the real action is!

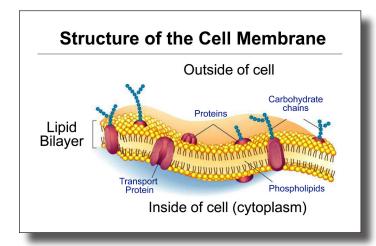
The seed of life, sperm, sets off the egg's membrane processes and delivers the spark as well as the chromosomes



that the woman's body will nurture into perpetuation of the species—or with less scientific, objective aloofness, the meeting of sperm and egg membranes is the start of the whole shebang of precious new life.

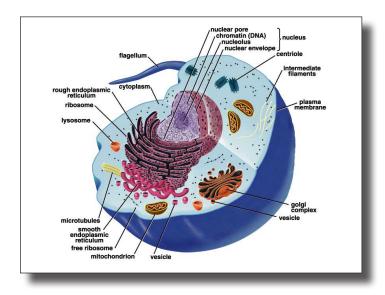
Membranes — The Body's Largest Organ System. It's not the skin anymore. Collectively, membranes are the largest organ system. This is helpful for our purposes of nutrition and natural healing – we have specific tools (nutrients) to support the ever-popular organs such as the liver, brain, thyroid, and pancreas; but now we can, and must, support the membranes if the body is to be able to heal itself. Think no more of membranes as a mere sausage casing for the cells, but instead as a vital, respiring organ system that actually performs most of the body's important functions.

## Membrane Anatomy



Cell membranes – the cell wall, the organelle walls (mitochondria, Golgi apparati, vacuoles, liposomes, endoplasmic reticuli, etc.), and the nucleus – all share the same fundamental and brilliantly effective lipid membrane structures. Yet each is unique and tailored to the tasks at hand. So with just one cell, there are thousands of membranes that govern tens of thousands of metabolic activities. They are all the same lipid-bilayers, and they are all uniquely different.

For example, the inner mitochondrial membrane where ATP (Adenosine TriPhosphate)—the energy of life – is created, is rigid, and uni-directional (very



low permeability). It's a battery of electric potential and does not have the fluidity that would diminish the presence of proton generators, electron transport chains, and the graduated electrical grid. In essence, Chronic Fatigue Syndrome is increased mitochondrial membrane (cristae) permeability that causes a failure to spark up the life processes. But other membranes serve more like a sieve—encouraging certain molecules to pass through readily, reaching out with hormone receptors, and encouraging nutrients to pass through. They are all lipid bi-layers, but function "similarly different."

When membranes are damaged, the very foundation of health is undermined. Hormones fail to deliver their metabolic messages and become imbalanced. Energy processes decline. Low cellular energy is synonymous with disease. Glucose and calcium metabolic processes fail. Disruption of life processes causes collateral damage to the cell and the surrounding tissues, and dysregulates many vital aspects of health.

What damages membranes? From internal processes, it's free radicals. From the external environment, the top two are:

**I. Trans Fats Cause Inflammation & Dysregulation.** (That hallmark of fast food corporations that have, for 30 years, been the generators of global disease and escalating health care costs) are a primary culprit in cell membrane damage, and natural health professionals have spoken out against those partially hydrogenated fats for over 30 years.

Instead of having Nature's "omega" horseshoe shape, trans fats have been deliberately altered to not have the properties of nourishing fat, but instead are straightened so that they remain solid at room

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temperature. These warped sticks of damaged fatty acid chains clog up the cell membranes and cause inflammation and thus are a leading cause of heart and cardiovascular disease, as well as hormonal dysregulation that leads to hormonal symptoms and cancer.



Throughout the latter part of the 20th Century, medical doctors and dieticians promoted trans fat margarine as "cholesterol free" and "low fat" and "healthy" while people lined up for drugs that could suppress the symptoms

of inflammation, low energy, and hormone confusion. These same self-proclaimed experts also denigrated Nature's wholesome organic, free range, naturallyfed butter, eggs, and meat as "dangerous fat," and put the hex on the very foods that could heal the intestines and cell membranes.

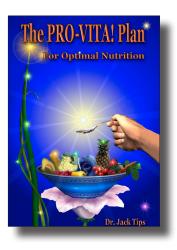
Advertisers then sold toxic margarine to the U.S. public as being good enough to "fool Mother Nature." Of course the nutritionists were immediately alarmed by processed, altered fats in the diet, but they were in a very small minority. It would take 50 years to prove the devastating effects of trans fats.

Now, after 30 years of increasing inflammatory diseases and rising national health costs, the nutritionists again stand righteously correct, now validated by Science. Sadly, there is no consolation in the "I told you so" position.

Having paid the price in countless deaths and quality of life-robbing medical costs, the simple message that

answers the question, "What are the right foods for human health?" keeps surfacing out of the morass of ignorance with the answer, "Nature's whole, organic, unadulterated, unaltered, minimally-processed foods are exactly what the human body and cellular function craves." This is discussed in the nutrition classic, *The Pro-Vita! Plan For Optimal Nutrition* – that shares Doc Wheelwright's astounding nutritional insights that teach "how to think, rather than what to think."

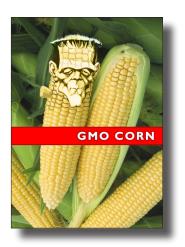
**2. Pesticides** in foods raise the body's inflammatory response, both via the microbiome "set point," and by direct, toxic interference with cell membranes



throughout the body. Chemicals. food additives, heavy metals and all environmental inflame toxins and warp cell membranes. Most pesticides are neurotoxins, so their impact upon the human body is neurological the brain, the nerves,

and the cell membranes' neurological communication systems.

Pesticides are an attack on one of the body's primary communication networks—the cell membranes where nerve impulses are transmitted along nerve cells by changing electrical potentials across the membranes. The end result, for all the pesticides that the liver doesn't detoxify quickly, is neuro-diseases including brain dysfunctions (anxiety, depression, low level inflammation, faulty hypothalamus signaling of endocrine processes, etc.) as well as autoimmune neurological concerns that, when applicable, fall into a diagnoses such as multiple sclerosis, ataxia, Huntington's and Parkinson's. This is why the natural health art of "Detox Done Right" as promoted by leading doctors who employ the Systemic Detoxification programs (Detox Done Right and Intracellular Detox) are helping people with neurological impairments. Remove the cause and the



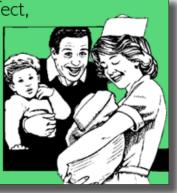
body is able to improve its health via its innate processes.

Pesticides tie directly into another aspect of cell membrane damage discussion because the purpose of genetically modified foods, [warning: opinion

statement] is not to provide food for a hungry world as the spin-doctors state, it's all about selling more pesticides and controlling the world's food supply – a beastly move to control the masses via "comply so you can buy food that we control."

**Genetically-modified (GM0 – Genetically Modified Organism) Foods** provoke inflammation and altered cell metabolic processes according to scientists who "come out of the suppression closet" and blow the whistle. The data keeps surfacing – genetically modified foods are dangerous, poisonous, and disruptive to cell membranes and cellular metabolic processes. They increase gut inflammation, which in turn raises the set point of inflammation throughout the body. Simply put, INFLAMMATION = DISEASE. Where's the data? It comes from reputable scientific and medical research but is suppressed in the U.S.A. where foods and chemicals banned in other countries are a mainstay of the diet. A 2012 nutritional analysis of GMO versus non-GMO corn shows shockingly major differences in nutritional content. Non-GMO corn contains 437 times more calcium, 56 times more magnesium, and 7 times more manganese than GMO corn.<sup>3</sup> GMO corn was also found to contain 13 ppm of glyphosate, compared to zero in non-GMO corn. The EPA standard for glyphosate in American water supplies is 0.7 ppm, and organ damage in animals has occurred at levels as low as 0.1 ppm. GMO corn contains extremely high levels of formaldehyde—about 200 times the amount found toxic to animals. Formaldehyde, also known as embalming fluid, causes cancer.

It's called a birth-defect, son. The FDA is aware of this side effect to GMOs, but they make too much money to do anything about it.



Have you taken steps to avoid genetically modified molecules from entering your body and interacting with your gut bacteria, cell membranes, and cellular genetics? Over 85% of all corn products in the U.S.A. are now genetically-modified. We must be vigilant – breakfast cereals, high fructose corn sweetener (in ketchup, barbecue sauce and condiments), popcorn, fresh corn, canned corn, grits, tortillas, and chips are genetically modified foods, unless you purchase certified organic corn.

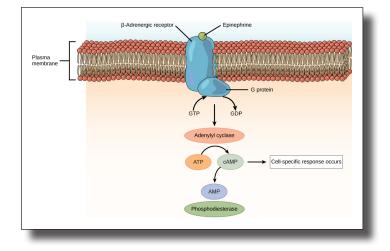
<sup>3</sup> MomsAcrossAmerica.com March 15, 2013

Genetically-modified corn is fed to chickens and cows and those altered molecules become part of their flesh (along with the dangerous weight-gaining drugs such as Ractopamine<sup>®</sup>, pesticides, and hormones allowed in U.S.D.A. meat, and are imparted to your body if you eat commercial meat, but are banned in 160 other countries as health-destroying toxins.

So cell membranes are caught between the toxic environment, human ignorance, commercial vested interests, and the body's innate healing mechanism of which inflammation is a functional part. Certainly a recipe for health disaster.

**Membrane/Hormone Connection.** What's so exciting about cell membranes is that they are the key to hormonal balance! So it's not hormone replacement therapy, not bio-identical hormones (which do have a use for some people), not thyroid drugs, not insulin drugs! Again, the key to balancing hormones is to correct cell membrane inflammation and damage so that the body's hormones can function properly. This is called, "Membrane Rejuvenation Therapy" and it's based on the body's own healing law that states, "Give me the nutrients I need, and I can heal myself."

Jamming more of a hormone into the body as is done with thyroid drugs, estrogens, steroids, adrenalins,



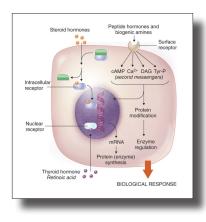
# **Health Tip**

Failure to address the *cause* inevitably results in *suppression of symptoms* when the therapy makes symptoms appear to go away. Suppression of symptoms inevitably progresses, over time, into additional and deeper maladies.

insulin, progesterones, and testosterones, is at best a mere reprieve while the seeds of destruction remain engaged and soon the unsuspecting person, having ignored the fundamental credo—*correct the cause*—will be much chagrined to find that inflammatory disease has progressed into other heartbreaking maladies.

When the cell membrane is warped, damaged and inflamed, the receptors don't work effectively. This can leave hormones in circulation where they can cause trouble. For example, if estrogen can't dock with cellular hormone receptors throughout the body, then the estrogen becomes relatively elevated, (particularly if the liver is too busy to conjugate it all.)

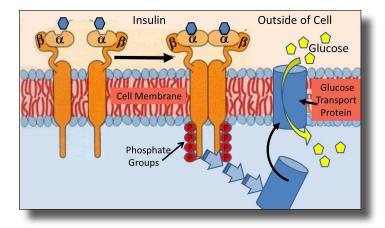
Elevated estrogens can cause cellular proliferations in the endometrial lining and breasts, and those proliferations can give rise to estrogenic breast and uterine cancers when mitochondrial-damaged cells reproduce and apoptosis is not initiated. The current medical approach is to suppress estrogen with drugs and let the recipient of such suppressive drugs suffer the consequences of further hormonal imbalance – dry skin, hot flashes, thinning vaginal membranes, and wrinkles—while the *cause* continues unchecked. Deeper maladies await such shortsighted therapies.



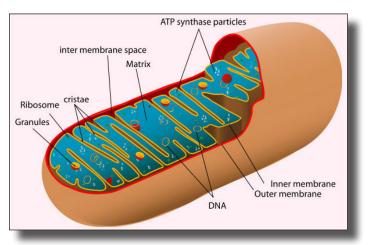
One side effect of suppressing estrogen heart disease<sup>4</sup> is HDI / the via LDL cholesterols that support heart ATP energy. Such side effects raise the importance of

Membrane Rejuvenation Therapy – so heart cells have the abundance of energy and respond properly to hormonal influences.

Correcting the cell membranes allows estrogen to be received by the cell membrane and allows secondary messengers inside the cells to effectively take the estrogenic message to the organelle membranes and nuclear DNA for appropriate transcription and utilization of the proteins that engage cellular function.



**Membrane/Glucose Connection.** What's also so exciting about cell membranes is that they are the key to correcting glucose metabolic issues such as diabetes, hypoglycemia, and chronic fatigue. It's the mitochondrial membranes that regulate glucose, redox processes (free radicals), and ATP energy! Correct the mitochondrial membranes' distress, and you have the major part of the glucose imbalance equation solved! (Couple that with diet and exercise and you have a formula for great success.) This is why the funding of hundreds of billions of dollars into medical associations to find "the cure to diabetes" via some toxic drug is ludicrous. The answer is nutritional and lifestyle. Always was, still is, and will continue to be. Just citing the body's truth.



The simple understanding is that the mitochondria require oxygen and glucose, and a host of Citric Acid Cycle nutrients (Co Enzyme Q-10, acetyl carnitine, B-Vitamins, alpha ketoglutarate, lipoic acid, etc.) to make ATP chemical energy. When the mitochondrial membranes resist the induction of glucose, they choke down the cell's energy supply and metabolic processes slow down.

One reason this occurs is because of membrane inflammation. Another is the inability of the mitochondria to make ATP without collateral free radical damage—so reducing the workload is a selfpreservation defense mechanism. **Thus insulin resistance is a mitochondrial decision based** 

<sup>4</sup> Oxford Journals, Cardiovascular Research (2002) Risk Factors for coronary heart disease: implications of gender.

on too much glucose and the need to lower the energy processes to protect the cell from both reactive oxygen and reactive nitrogen species. Excessive insulin raises inflammation levels, stores glucose as fat, and thickens smooth muscles such as the arteries thus elevating blood pressure.



The glucose process starts with the gut microbiome and the rate at which the intestinal bacteria ferment and convert starches to glucose. Some bacteria such as *fermicutes* are super-efficient glucose producers and can

push 100 times more glucose into the bloodstream than other bacteria. Thus over colonization of fermicutes (a form of dysbiosis) can lock in the insulin resistant reaction and is often a cause of why some people can cut calories and exercise like an athlete, but not lose weight.

Now we know that Diabetes, Cancer, Obesity, and Heart/Cardiovascular Disease all share the same diathesis called Metabolic Syndrome. At the core of what they share is mitochondrial membrane damage, thus impairment of their glucose metabolic processes, thus the lowering of cellular energy (ATP) that precedes every disease. Energy is everything! The membrane is everything! And together, well, they are really, really everything! (Well, almost everything.)

**Membrane/Cholesterol Connection.** Membrane health has everything to do with cholesterol regulation. Here are some provocative insights:

• **Elevated total cholesterol** is the body's way to offset inflammation and repair damaged membranes. It's not cholesterol's fault that it becomes oxidized while doing its job to make hormones, energy, and anti-inflammatory molecules.

• **Elevated LDL** (Low Density Lipid cholesterol) is a direct result of ailing membranes and not overconsumption of cholesterol in the diet. It's a deficiency of a specific form of cholesterol called "cholesterol sulfate "attesting to the cell membranes' dire need for cholesterol.

The body has many ways of maintaining proper lipid balance. In the arteries, the body innately takes damaged, oxidized LDL and makes plaque so that the blood platelets will then produce the cholesterol sulfate that the brain and heart require for optimal healthy function. It's actually a recycle project, but today's higher demands for anti-inflammatory antioxidants coupled with a dearth of raw materials (poor diet) has resulted in cardiovascular disease.

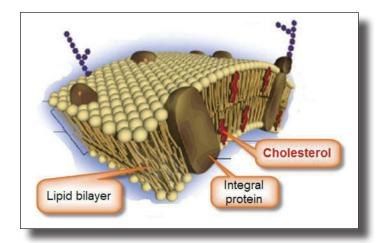
"Blaming cholesterol for heart disease is like blaming firemen for the fire." — Dr. Johnny Bowdens

Statin drugs artificially lower cholesterol, which reduces the plaque that the body was using to protect the arteries and make the critically important cholesterol sulfate molecules. Thus statins are actually preventing the body from compensating for its much needed cholesterol sulfate, and putting the user at risk for heart failure. **The problem is not cholesterol, the problem is inflammation. Or more specifically, the problem is what's causing inflammation!** Q: What causes the inflammation? A: The altered intestinal microbiome, environmental toxins, lack of dietary antioxidants, and the poor quality, processed foods that form the basis of the SAD diet.

Cholesterol in the sulfate form serves as an antioxidant to protect the skin from sun damage. It starts the conversion of Vitamin D3 sulfate in the skin that supports the immune system to prevent and oppose cancer.

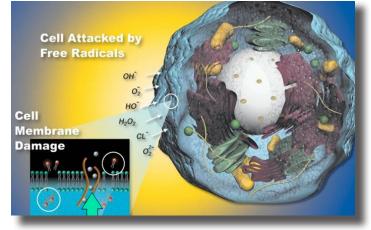
Cholesterol is a component of the mitochondrial membrane. It migrates from the outer mitochondrial membrane to the inner mitochondrial membrane so that the mitochondrial Cytochrome P450scc enzymes can initiate steroid synthesis for the body's life processes.

Elevated cholesterol is the body's attempt to repair damaged cell membranes. The body is simply making more molecules of cholesterol available for membrane repair.



Cholesterol is your friend! In fact, heart disease is actually a LACK of beneficial cholesterol that repairs the heart's mitochondrial membranes! This is why the short-sighted statin drugs actually do more harm than good. They force-lower the cholesterol that the body needs to heal its membranes—and the statistics show that they do not prevent heart disease—in fact they are causing more heart disease because they deplete the Coenzyme Q-10 that's needed to make the ATP energy required for the heart to pump, and the heartcells to repair themselves. Membrane/Chronic-Degenerative-Autoimmune Disease Connection. So, there are some exciting things we'll discuss in this report. [See Research Report #9: Autoimmune Disease—A Reversible Process to learn how the body can reverse autoimmune diseases.] It's certainly life changing information—for practitioners and for patients who suffer in ignorance of natural law and buy into the medical model's "no known cause, no known cure" myth!

So the membranes hold the key to the reversal of chronic-degenerative and autoimmune diseases. When the cell wall and mitochondrial membranes become inflamed, often from free radicals, then the immune system responds causing collateral "selfdamage." It's not the immune system making a mistake. It's the immune system responding to the "set point" of inflammation from the intestinal microbiome, and doing it's job to get rid of damaged cell membranes, especially mitochondrial membranes that are supposed to govern apoptosis—the innate cell death necessary when there are damaged membranes that can become cancer.

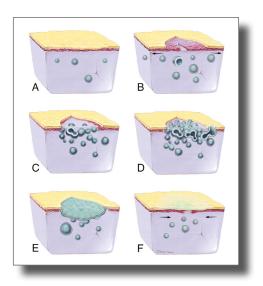


The mitochondria with damaged membranes communicate errant messages with the cells core

functions (nuclear epigenetic transcriptions) that support health and start favoring disease. The body cries out with painful symptoms such as tumors, and the need to destroy that errant cell lest it become a rogue or highwayman and start robbing the body of its life force. This is the core of the cancer diathesis.

Membrane Repair. The body already has mechanisms in place to repair damaged membranes. This is important because every chronic degenerative and autoimmune disease involves damaged membranes—our mantra is "fix the membrane, and the body heals itself!" When we work with the body in this regard, we facilitate natural healing and voila! We find an avenue for the reversal of chronic degenerative and even autoimmune diseases.

How does the body "fix" the membranes? It's easier than you might think. We simply need to supply the body with the specific lipids and know that body's innate wisdom will apply those healing agents to optimal effect.



body already has the most optimal healing mechanism in place, and already has clear, active pathways repair to damaged cell

The

membranes because membranes are, by Nature, subject to a certain amount of free-radical damage. An analogy for 21st Century life is: The boat comes with a bilge pump to handle seepage, but is not equipped to handle waves pouring down the hatch.

To initiate cellular membrane healing, simply ingest and transport phospholipids to the cells. Once the nutrients are available, the body will employ its innate mechanisms to remove damaged membrane components and replace them with the healthy components. Unfortunately, the SAD (Standard American Diet) lacks in beneficial fats, causing the need for supplementation that can provide undamaged phospholipids such as cardiolipin and the others to accelerate the availability of raw materials.

Just what are those specific, healing lipids? They are:

- Cardiolipin
- Phosphatidyl-choline
- Phosphatidyl-serine
- Phosphatidyl-ethinolamine
- Phosphatidyl-inositol
- Phosphatdic acid
- Phosphatidyl- glycerol
- Alpha glycerolphosphoral choline
- Sulfated cholesterol

The cells' innate healing mechanisms are totally dependent upon lipids (fats) to heal. Where do those strange and complicatedly named molecules come from? Well, let's affirm what we all already instinctively know! It's food nutrients that help the body heal itself, not suppressive drugs. But today, those life-giving nutrients are not part of the very SAD, Standard American Diet, but they are indeed abundant in the Pro-Vita! Plan For Optimal Nutrition the dietary legacy from Doc Wheelwright; and they are available supplementally. Thus, for clinical remedial work, we turn to the blessing and innate right of all human beings to acquire food supplements.



So what's with all the low fat foods? What's with all the fat phobic, "aka: "healthy heart" diets? What's with the denigration of fats? If you wonder, then your brain (tissue comprised of mostly fat) is still functional. Why would a culture deny themselves the very molecules that heal?

So let's learn some basic information about the structure and function of cell membranes, understand how damage and inflammation destroys health in inner sanctum of the inner cell, and how the 21st Century environment is invading the "holy of holies"—the nuclear DNA and the transcriptions rendered that support life and healing. By understanding this information, you will have a significant tool for helping people restore their bodies to their most optimal health.

**Cardiolipin** is a specific lipid constituent of the mitochondrial membranes – the outer membrane and mostly the inner membrane. It's very sensitive to free radicals and oxidizes quickly to assist the electron transport system to make ATP. It helps maintain the enzyme systems required for both mitochondrial respiration (importation of nutrients, exportation of wastes), and bioenergetics (the mitochondrial electrical system.) It's synthesized in the mitochondria from phosphatidylglycerol.

When cardiolipin is damaged, the mitochondrial cristae membrane becomes more porous and loses its "battery charge" capacity, thus impairing the flow of protons and electrons across the membrane. This is synonymous with Chronic Fatigue.

Cardiolipin must be replaced and the membranes repaired so that energy is restored. With a lack of cellular energy, the cells must either engage alternative metabolic processes (cause symptoms), or apoptosis (cell death.)

# S.T.E.P.s to Membrane Rejuvenation Therapy



Let's apply the S.T.E.P.s model of for clinical success and see how Functional Medicine has the natural health

solutions to health and longevity.

**S**ymptoms – Digestive/eliminative concerns, glucose metabolic concerns, fatigue, chronic conditions, autoimmune concerns, chronic fatigue syndrome and fibromyalgia, hormone imbalances, brain fog and forgetfulness, heart rhythm symptoms, and elevated cholesterol all quickly point to a dire need for Membrane Rejuvenation Therapy. (The membrane is involved in practically everything.)

**T**ests, Lab & Others – The Inflammatory Markers quickly reveal the need for Membrane Rejuvenation Therapy.

• Meta-Oxy – an inexpensive, do it yourself, urine test that measures the end products of cell membrane damage – malondialdehyde. Available to practitioners from Systemic Formulas.



- Sedimentation Rate (ESR) a non-specific measure of inflammation determined via blood analysis.
- **C-Reactive Protein** a blood marker that is produced in the liver due to inflammation.

- **Homocysteine** measures the protein, homocysteine, in the blood. Elevated homocysteine is a marker for vascular and endothelial inflammation.
- **Dysbiosis Test** a urinary test from Systemic Formulas that ascertains if bacterial "fermenters" have over colonized leading to Leaky Gut inflammation.
- Case Taking & Questionnaires here are some key questions that quickly reveal the likelihood of cell membrane damage:

Do You Have:

- Less than 6 servings of fresh, organic fruit and vegetables in your diet?
- 2. Any inflammatory symptoms (their names end in "itis").
- 3. Heart or cardiovascular symptoms?
- 4. Ongoing aches and pains?
- 5. A known risk or risk factors of diabetes?
- 6. Diminishing eyesight acuity?
- 7. Age spots (brown spots) in your skin?
- 8. Pre Menstrual Syndrome, menopause symptoms or other hormonal imbalances?
- 9. Senior moments? Forgetfulness? Memory issues?
- 10. Fatigue, hypothyroid, chilliness?

**E**valuate – practically everyone has inflammation concerns due to the altering of the innate gastrointestinal microbiome (antibiotic use, genetically modified foods, toxins, food additives, etc.) Everyone has membrane damage due to the toxic environment. Membrane Rejuvenation Therapy is foundational to all cellular healing.

**P**rotocol – Here's a program that natural health doctors are using to focus on the cell membranes:

## Membrane Rejuvenation Therapy

#### With Breakfast

I scoop Metabo-Shake in water
I ea VISTA I caps (Membrane Regeneration)
3 droppers VISTA2 (Membrane Regeneration)
I Spectra I

### With Lunch

2 droppers Spectra2 2 eNRG (Quantum ATP)

## With Supper

I ea VISTA I capsules3 droppers VISTA2 (Membrane Regeneration)I Spectra I

**Summary.** Membrane Rejuvenation Therapy is a therapeutic approach to helping the body repair and restore cell membrane integrity. Membranes virtually hold the key to life and thus are critically important concerns for health. Helping people restore cell membrane integrity is foundational to natural health practices and natural health clinicians must help restore membrane integrity in order to have successful practices.

Like G.I. Microbiome health, and Detoxification, Membrane Rejuvenation Therapy is foundational for the body to be able to heal itself. Practitioners who employ Membrane Rejuvenation Therapy soon find that the "membrane is everything" to a successful healing practice.

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