Chapter 6: The Power of The Parents

Understanding Parent Essential Oils

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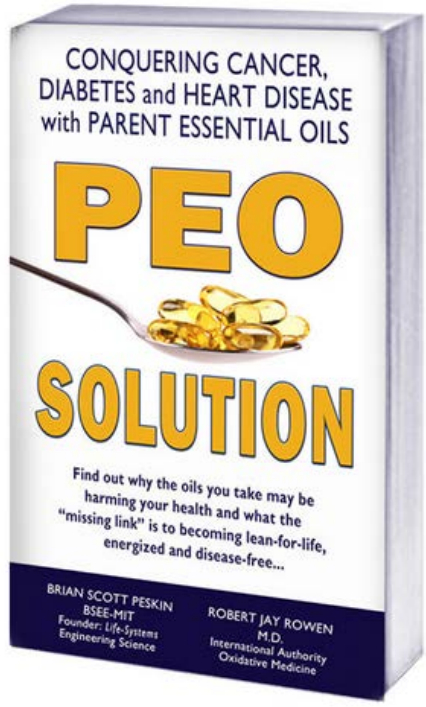

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Chapter 6

The Power of the Parents— Understanding Parent Essential Oils

"I previously wrote you about the **remarkable cause/effect relationship in reversing plaque volume in a (smoking) patient** taking conventional treatment (i.e. statins, aspirin, Co-$Q_{10,}$ etc.). In reading over [the patient's] scans **I have never seen such a remarkable result. When he [the patient] stopped the PEOs the plaque came back!**"

> Robert Kagan, M.D., Radiologist (USA)
> President Clinton appointee as the sole physician commissioner on the White House Fellowship Commission/Former Chairman of the Board of Nuclear Medicine Resource Committee of the College of American Pathologists/Past President of the Florida Association of Nuclear Physicians.

"Prof. Peskin's recommendations are **truly miraculous** *for my patients and are a significant factor in* **eliminating fattening carbohydrate (sugar) addiction**.[1] *This* discovery *isn't just for beauty pageant contestants anymore;* **it's for everyone!**

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1 *See* chapter 5 for discussion on Dr. Cavallino's experiment proving that PEOs reduce patient hunger and cravings for sweets. *See also* "Scientific Support for Chapter 5" at **Peo-Solution.com** for further information.

"What intrigued me was **Prof. Peskin's unique view of Parent Essential Oils** *(PEOs). After I tried them, both my patients and I found his recommendations led to* **drastically increased energy** *and* **substantially decreased carbohydrate cravings.**"

– *Steven Cavallino, M.D. (Italy)*
***Prolotherapy** Specialist / **Sports Medicine** Specialist*

From Professor Peskin:

This chapter provides a wealth of information—much of it likely appearing for the first time outside of medical textbooks or medical journals. Because an entire book could easily be devoted to this topic alone, we include medical scientific support at PEO-Solution.com. (*See* Dr. Kagan's remarkable full report at the same location.)

The "Power of the Parents," Proven by IOWA Screening Experiment

Theoretically, I was totally convinced PEOs would increase arterial flexibility, reduce occlusions, and decrease inflammation, but I could not clinically prove it. **I especially thank scientist Michael Czajka (Australia) for introducing both renowned interventional cardiologist David Sim, MD, and me to Pulse Wave Velocity (PWV) and DPA**—a new technology accepted worldwide—finally proving PEOs would increase arterial compliance, **clinically**! Using photoplethysmography, I designed a seminal experiment to test "The Power of the Parents" for cardiovascular improvement. Following are the highlights:

Arterial compliance (flexibility) is a significant factor in CVD, but there is *no drug that increases arterial compliance.* Beta blockers/ACE inhibitors simply decrease blood flow, so there is *automatic* decrease in arterial pressure. Subjects taking those

classes of drugs are excluded as they render meaningless true arterial physiologic status.

Screening for arterial flexibility was performed on men & women taking PEOs long-term (**24 months average**) and short-term (**3 months average**), as well as subjects previously taking fish oil then ceasing and utilizing PEOs (**3.5 months average**). Here are the remarkable results:

- **Long-term** PEOs: **8.8 years decrease in "biological age." NNT = 1.4—73%** of subjects improved.
- **Short-term** PEOs: **7.2 years decrease in "biological age." NNT = 2.3—43%** of subjects improved in this very short time frame.
- **Fish oil ceased/converted to PEOs**: **11.1 years decrease in "biological age." NNT = 1.2**—a **remarkable 87% of subjects improved** in this very short time frame. Particularly significant is this additional 44% increase in effectiveness in subjects previously taking fish oil supplements. *See* "Why Fish Oil Fails to Prevent or Improve CVD: A 21st Century Analysis," *Food and Nutrition Sciences*, Vol. 4, No. 9A, **2013**, pp. 76–85.

A non-invasive finger probe (the same as pulse oximeter) is utilized. The machine self-calibrates and a computer does the analysis—*NO interpretation is required*. The reading correlates to population biologic age samples. Because of this **it is impossible to manipulate readings. Additionally,** I did not perform the screenings, and statistics were *independently* run with a statistician who has performed analyses for NIH. All statistics were highly significant, meaning **you can "take these results to the bank**."

The most remarkable finding was that subjects taking fish oil prior to PEOs obtained the most improvement! This was anticipated since they started at a greater deficit. **Ceasing fish oil** use allowed the arterial system to revert to "normal" instead of making the vascular system less flexible by its use. Once the vascular system was back to "normal," the expected improvement from PEOs, as shown by the other groups, was also achieved, resulting in an even greater decrease in biological age.

It takes a full 18 weeks to fully rid patients of the negative effects of fish oil, as this **2003** ***British Medical Journal of Nutrition*** article makes clear.[2] The subjects in the IOWA experiment were measured at an average of 14 weeks *after ceasing fish oil usage.* If they had been measured at the full 18 weeks, we might have seen even greater decreases in "biological age." A link to the full screening experiment is in the Scientific Support for chapter 6 at PEO-Solution.com.

This chapter details the significant difference among the three classes of fats. **You and your patients can soon benefit** from what physicians around the world are calling "*one of the most significant medical discoveries of the 21st century*."

There are three types of fats:

- saturated
- monounsaturated
- polyunsaturated

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2 "Fish-oil supplementation reduces stimulation of plasma glucose fluxes during exercise in untrained males," *British Medical Journal of Nutrition* (**2003**), 90, 777–786.

Saturated fats

Saturated fats are nonessential—*the body makes them easily from carbohydrate consumption, if they are not directly consumed*. **Significant amounts of saturated fat—palmitic acid in particular**—are required by the body. Without saturated fats, nerve impulses would be much slower. Saturated fats won't turn rancid. Saturated fats allow varying degrees of rigidity in cells and tissues. These fats can withstand extreme heat; much of the ingested saturated fat gets burned for energy. We also know from chemistry that *saturated* fats can't form harmful by-products.

Patients Need to Know: Saturated fats are the ideal high-temperature fat for cooking. Coconut oil, palm oil, ghee, and even lard contain high amounts of saturated fat. Of course, "organically" processed is best.

The notion that saturated fat causes heart disease was never based on science—no biochemistry or physiology—and has been debunked. This is another 21st century "reversal." It may have "sounded good," but is completely wrong. Decades ago, saturated fats were commonly used in cooking, but misguided recommendations replaced good science and our health has drastically deteriorated as a result.

***2010 Newsflash*: Saturated Fat Shown NOT harmful:**[3]

3 Siri-Tarino, PW, et al., "Meta-analysis cohort studies evaluating the association of saturated fat with cardiovascular disease," *Am J Clin Nutr,* **2010** March; 91(3): 535–546.

> "**Background**: A **reduction in dietary saturated fat** has generally been ***thought to*** improve cardiovascular health.
>
> **"Conclusions**: A meta-analysis of prospective epidemiologic studies showed that there is ***no significant evidence for concluding that dietary saturated fat is associated with an increased risk of CHD or CVD***."

As you may have guessed from the preceding chapters, I am not a fan of "meta-studies" because many of the individual studies are often flawed. However, as I stressed earlier, a failure among numerous studies counts much more than a success, so this analysis is worth looking at. It's "case closed," though, because, the physiology and biochemistry prove the study's validity independently with high-resolution chromatography.

> **Newsflash:** There is no saturated fat in an arterial occlusion/thrombosis (clog). There are over ten different compounds in arterial plaque, but NO saturated fat.

The world's leading medical journal *Lancet* published this finding in 1994,[4] though it wasn't extensively reported.

Two additional medical journals independently reported—before and after the historic *Lancet* report—that there is no saturated fat in arterial occlusions.[5] High-resolution

4 Felton, CV, et al., "Dietary polyunsaturated fatty acids and compositions of human aortic plaque," *Lancet*; 344:1195–1196, 1994.

5 Waddington, E., et al., "Identification and quantification of unique fatty acid and oxidative products in human atherosclerotic plaque using high-performance lipid chromatography," *Annals of Biochemistry*;

chromatography detects compositional components to a very accurate 0.1% amount.

Since there is no saturated fat comprising the occlusion/thrombosis, there is no possible metabolic pathway that would lead to saturated fat being atherogenic (promoting the formation of arterial fatty plaques). Why did investigators make this mistake? While it is impossible for me to absolutely know researchers' thought processes, it appears they are not distinguishing between *adulterated* and unadulterated fats. Consequently, they **are erroneously blaming saturated fat for many health problems, when the real culprits are highly *processed (adulterated)* fats.** In chapters 2 and 3, I warned that all possible causes *must be known in advance* BEFORE making cause/effect statements. Tragically, this wasn't and still hasn't been done.

Monounsaturated fats

These are non-essential fats. The most significant monounsaturated fat is omega-9 (oleic acid), **the major component of olive oil**. The body can make these, too.

There are multiple factors to consider when choosing cooking oils. Monounsaturates won't turn rancid at room temperature. I have had a small tub of expensive "fancy" anchovies packed in extra virgin olive oil stored in my refrigerator for over three years and they taste as fresh as the day I bought them! Some companies now fry potato chips, etc. in olive oil; however, this isn't a good idea. Olive oil does not have a high smoke point—the point where the oil will start to smoke. You will hear about

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292(2):234–244, **2001**; Kuhn, H., et al., "Structure elucidation of oxygenated lipids in human atherosclerotic lesions," *Eicosanoids*; 5:17–22, 1992.

the *Mediterranean diet*—and how those who follow it are healthier than those who don't. But olive oil is low in precious PEOs. *Life-Systems* Engineering Science *makes the distinction between lack of a negative (which is still a good outcome) compared to a positive (which is a much better outcome)*. The reported "success" of the Mediterranean diet amounts to nothing more than LACK of consumed *adulterated* oils. **Dr. Rowen came to this conclusion years ago, as well**. Imagine patient improvement resulting from the "Power of the Parents" with PEOs.

Patients need to know: Olive oil *won't harm* patients—but it *won't help* them, either. It is merely a *relative* improvement compared to consuming *adulterated* fats.

Polyunsaturated fats

PEOs—the ONLY essential fats the body can't make:

- Parent omega-6
- Parent omega-3

These fats have two or more double bonds. The 18-carbon fat that contains two double bonds is termed linoleic acid (LA). I call it **Parent omega-6**. The body CANNOT make these—they MUST come from food. The fat with three double bonds is termed alpha-linolenic acid (ALA). I call it **Parent omega-3**. The body CANNOT make these, either—they also MUST come from food. One of the many benefits of Parent omega-6, particularly in the cell membrane, is to act as cellular "oxygen magnets." That is why patients should have increased energy with PEOs. PEOs are the ultimate "energy drink." The relationship between

linoleic acid and sufficient cellular oxygen—Parent omega-6—is confirmed in a study published in *Pediatrics*.

- "We have already reported that, although the saturates, such as palmitates, have little or no affinity for oxygen, the unsaturates [including **PEOs**] are capable of undergoing ***reversible*** **oxygenation in response to changes in oxygen pressure.** Because two unsaturated carbon-carbon bonds are required for the reaction, each linoleic [Parent omega-6] molecule can bind with one molecule of oxygen with it, but **two oleic molecules must bind one oxygen** between them. [Note: Parent omega-6 is twice as effective in oxygen transfer.]
- "Underwood's group has shown that, in cystic fibrosis, the abnormality in fatty acid composition is not restricted to the erythrocytes and plasma. **Interference with the movement of oxygen could then occur at any cell membrane** so that there could be a **general reduction in the supply of cellular oxygen** throughout the body…
- "[S]uch a condition could **depress the rate of *cellular respiration, phosphorylation,*** and all energy-dependent processes.
- "…[I]t seems possible that many of their symptoms may result from **essential fatty acid (linoleic) deficiency,** leading to the **decrease in the availability of cellular oxygen for respiration."**[6]

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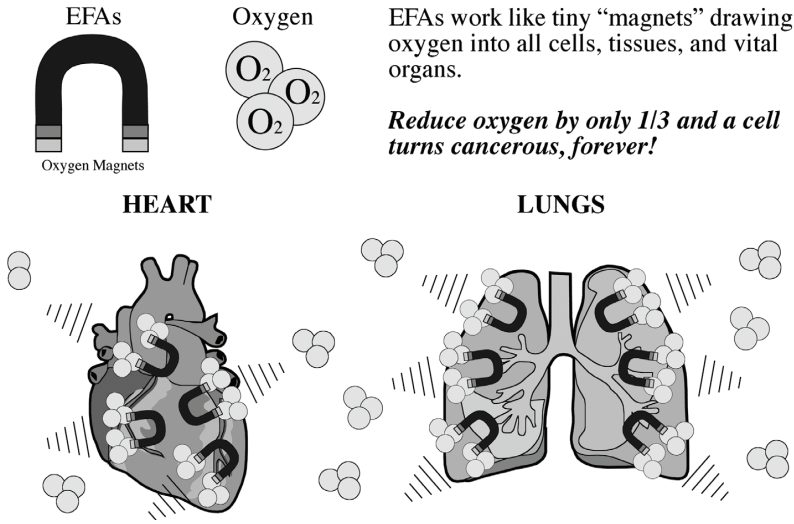
6 Campbell I.M., Crozier D.N., Caton R.B., "Abnormal fatty acid composition and impaired oxygen supply in cystic fibrosis patients," *Pediatrics* 1976; 57: 480–486.

OXYGEN MAGNETS!



Newsflash: Lack of *cellular* oxygenation—hypoxia—is the *prime cause* of cancer. Nobel Prize-winner, Otto Warburg, MD, PhD discovered this fact. It was verified by American physicians and scientists; however, no one knew how to increase cellular oxygenation. Today, we do know how. Adulteration of PEOs is the physiologic basis of systemic, decreased cellular oxygenation. The **PEO Solution** is the clinical remedy. In one respect, the benefits are similar to those of a hyperbaric chamber. My book, *The Hidden Story of Cancer*, details this. There is more on this topic in Chapter 12.

The body makes "derivative" from the parents "as needed."

All important longer chain structures are *made from the Parents* by the body on an "as needed" basis. These are technically termed "long-chain derivatives," or (long chain) metabolites. I simply call them "***derivatives***." The most well-known and significant derivatives are:

- **GLA (omega-6 series)—substrate for PGE_1—the body's most powerful ANTI-INFLAMMATORY and vasodilator.**
- **AA (omega-6 series)—substrate for PGI_2, the body's most powerful natural "blood thinner"/platelet anti-aggregator/anti-adhesive/vasodilator. Contrary to popular belief, AA is required and is ubiquitous—every cell membrane contains it.**
- EPA (omega-3 series)—very small amounts naturally produced.
- DHA (omega-3 series)—very small amounts naturally produced.

The omega-3 series derivatives are very weak compared to the omega-6 series derivatives. This is well known and well understood by those in the field. However, once fish oil became the "supplement du jour," rationality disappeared. Unbelievably, the fish oil proponents will claim that because the elongation pathways are the same for both series, and because omega-6 is "bad," then having less is relatively "better." I am saddened by such tortured logic because it potentially harms the patient.

ADVISORY: It is commonly thought and publicized that the real "power" of EFAs is solely in their long-chain metabolites

(derivatives). However, this is categorically wrong and naïve as you discovered at the chapter's beginning. True, long-chain metabolites like GLA and AA—both of the Parent omega-6 series—are critical. Half of every cell membrane is fat, but there is more to the story…

PEOs are the "brick & mortar" of each cell

Every cell (bi-lipid) membrane—one hundred trillion (100,000,000,000,000)—contains 25%–33% PEOs.[7] Every **mitochondrion**—typically hundreds to thousands **per cell**[8]—contains them, too.

Evolutionary biologist Dr. Bruce Lipton understands how important the cell membrane is to "the intelligence" of the cell. Nobel Prize-winner Otto Warburg, MD, PhD also did, and he stated:

"The **most important and completely unexpected result** of the present investigation is the **proof that the plasma-membrane *as such***, and ***not because substances pass in or out* through it**, plays an **important role** in the oxidative metabolism [required for intelligence] of the cell."[9]

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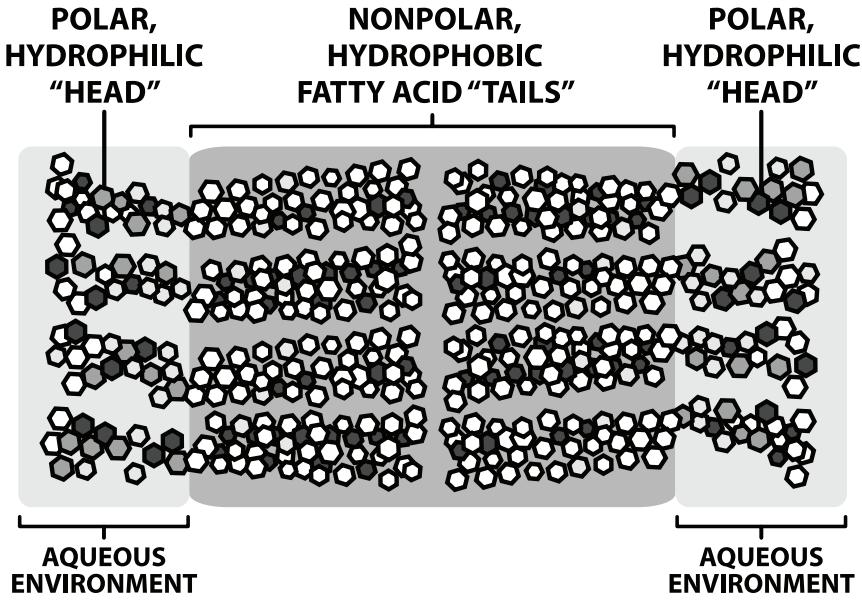
7 Alberts, Bruce, et al., *Molecular Biology of the Cell*, Garland Science, New York, NY, 1994, page 428.

8 Murray, Robert K, et al, *Harper's Illustrated Biochemistry* (26th edition), McGraw-Hill, New York, **2003**: 97; Guyton, Arthur C & Hall, John E, *Textbook of Medical Physiology* (9th ed.), W.B. Saunders Co. 1996: 16, 861–862.

9 Warburg, Otto, "The Metabolism of Tumours: Investigations from

Bi-Lipid Cell Membrane
(Notice the extensive lipid fatty acid "tail" section.)



It cannot be denied…PEOs are the "brick and mortar" **of every cell, tissue, and organ, including mitochondria**.

21st CENTURY NEWSFLASH: *At least 95% of PEOs STAY as PEOs*. **Consequently, emphasis must be placed on the "Parents."**

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the Kaiser Wilhelm Institute for Biology," translated by Frank Dickens, Constable & Co Ltd., 1930, page 56 (out of print). Ref: Hoppe-Seylers Zeitschr. f. physiol Chem., 66, 305, 1910.

Parent omega-3 and its derivatives—although important—are nothing close in power to the omega-6 Parent and its derivatives, as the brilliant D.F. Horrobin, MD, PhD, made clear decades ago:[10]

> "**The *n-6* EFAs have at least four roles:** (1) The modulation of **membrane structure**. (2) The formation of short-lived local regulating molecules such as prostaglandins (**PGs**) and leukotrienes (**LT**), together often **known as eicosanoids**. (3) The control of the **water impermeability of the skin** and possibly the permeability of other membranes such as the gastro-intestinal tract and the blood-brain barrier. (4) **The regulation of cholesterol transport** and **cholesterol synthesis**. ***The membrane effects of the EFAs are possibly the most important***.

"The n-3 EFAs are of major biological significance but they are simply not as important as the n-6 EFAs.

> "When animals and humans are put on **diets deficient only in *n-6* EFAs**, it is easy to show that they develop multiple biochemical and biological abnormalities. In contrast it has proved extremely difficult to demonstrate biological abnormalities in animals deprived only of *n-3* EFAs. There are abnormalities in the brain, the retina, the heart and platelets and the *n*-3 EFAs are

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10 Horrobin, D.F., "Nutritional and medical importance of gamma-linoleic acid," *Prog. Lipid Res.*, Vol. 31, No. 2, pages 163–194, 1992.

> undoubtedly important in modulating the functions of these organs, but ***these abnormalities are not easy to demonstrate***.

> "When animals are ***deprived of both n-3 and n-6 EFAs***, all the readily observed **abnormalities are quickly corrected by *n-6* EFAs alone. *N-3* EFAs alone do not correct any of the abnormalities, and make some, such as the capillary fragility, worse."**

A great deal of discussion in the world of nutrition has given omega-6 fatty acids a bad reputation, which, according to a **2009** advisory by the *American Heart Association*,[11] is unfounded. The debate came about because one of the components of omega-6 fatty acids, called arachidonic acid (AA), is a "building block" for some inflammation-related molecules. This had led to concern that omega-6 consumption would lead to a greater risk of heart disease.

"**That reflects a rather *naive understanding of the biochemistry***," says William S. Harris, director of the Metabolism and Nutrition Research Center of the University of South Dakota

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11 Harris WS, Mozaffarian D, et al., "Omega-6 fatty acids and risk for cardiovascular disease," downloaded from circ.ahajournals.org on January 29, **2009**, to be published in *Circulation*, February 17, **2009**, pages 1-6, and American Academy of Anti-Aging Medicine referenced February 2, **2009** at http://www.worldhealth.net/news/concern_about_omega-6_fatty_acids_leadin/. AHA Heartwire **2009**, © **2009** Medscape, January 28, **2009** (Dallas, Texas), based on *Journal of the American Heart Association*, Ref.: **AHA Science Advisory**.

Sanford School of Medicine, and the nutritionist who led the science advisory committee that issued the report in *Circulation.*

> "'**[O]mega-6 PUFAs also have powerful *anti-inflammatory* properties** that ***counteract any proinflammatory activity***,' say the advisory authors. *'It's incorrect to view the omega-6 fatty acids as "proinflammatory."'*

The 21st Century Solution:

Parent omega-3 *in conjunction with* Parent omega-6 is the 21st century solution to EFA deficiency.

"Normal" Isn't Necessarily Optimal...

Horrobin then discusses the lack of a sufficient definition of "normal."

- "… Normal" [EFA levels] in this context means 'usual for the population' and also 'not obviously diseased.' It does *not necessarily mean that 'normal' levels are ones which are optimal* for long-term health. Any 'normal' Western population has large numbers of people within it who will suffer relatively prematurely from heart disease, cancer, arthritis, dementia and a whole range of other conditions. Estimates of 'optimal' EFA levels will only come as the result of large scale prospective studies in which EFA analyses are performed on blood samples from large numbers of apparently healthy individuals,

> and these people are monitored over decades for the emergence of health problems." [Note: This HASN'T been done.]

◗ **PEO Solution** analysis: Just as the LDL-C "cholesterol number" has been modified downward with no scientific basis. The next chapter details the FAILURE of fish oil's EPA / DHA to positively influence Alzheimer's in patients with low DHA levels. This is direct proof of Dr. Horrobin's assertion.

Lipids Assist and Enable Protein Functionality

Horrobin covers the critical relationship of PEOs to proteins:

> "The lipid configuration of the membrane is important in itself, but also matters because it influences the structure and behavior of the many proteins in the membrane such as ion channels, receptors and ATPases [**including insulin receptivity**]. These proteins are literally *afloat in a lipid sea* [PEOs] *and their function is dependent on the behaviour of that sea*."[12]

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12 The top physiologist/biochemist of the twentieth century, Nobel Prize-winner Otto Warburg, MD, PhD, understood this back in 1910! "The **most important and completely unexpected result** of the present investigation is the **proof that the plasma-membrane *as such***, and ***not because substances pass in or out* through it**, plays an **important role** in the oxidative metabolism of the cell. In section II this was **proved unquestionably**." [Warburg, Otto, *The Metabolism of Tumours: Investigations from the Kaiser Wilhelm Institute for Biology*, translated by Frank Dickens, Constable & Co Ltd., 1930, page 56 (out of print). Ref: Hoppe-Seylers Zeitschr. f. physiol Chem., 66, 305, 1910.]

The brain and nervous system has the greatest density of omega-3 derivatives—about 14% of its total lipid is EPA / DHA. However, arachidonic acid (AA), an omega-6 derivative, accounts for a significant 10% of total lipid content. Fish oil advocates don't mention this. Furthermore, as you will discover in chapter 7, adding DHA does nothing to improve dementia. This is a *red flag* that must be heeded by those who think more supplemental fish oil and DHA is required.

"I see the potential for **your PEO revelations** to become widely recognized as a **global cure** for the health-destroying effects of current day dietary practices. **I wish I had known about the PEOs fifty years ago!**"—*Peter Gasperini, M.D.*

Fats don't make patients fat; they inhibit the process.

As you discovered in chapter 5, glycemic carbohydrates make patients fat. PEOs are much too precious to cell structure and eicosanoid production to be merely "burned for energy." (Eicosanoids are compounds that influence a network of controls in the body, particularly immunity and inflammation.) One of the most renowned medical textbooks on the subject, *Basic Medical Biochemistry—A Clinical Approach*, tells us on page 510:

> "**Adipose tissue [body fat] lacks glycerol kinase** and can produce glycerol-3 phosphate **ONLY from glucose** dihydroxyacetone phosphate [from eating **carbohydrates**]. Thus, adipose tissue can store fatty acids **ONLY when glycolysis is activated, i.e., the fed state [after eating].**"

Note: Body fat LACKS glycerol kinase, as seen above. Therefore, the glycerol-3 phosphate from EATING dietary carbohydrate is required. You can't get it any other way. Page 790 of the textbook gives us further insight into patients staying lean-for-life:

> "If glycerol-3 phosphate is abundant [from **carbohydrates**], **many of the fatty acids** so formed are re-esterified [**converted back**] to triacylglycerols [**more body fat**]…"

Here's more proof, from *Student Companion to Stryer's Biochemistry*, page 610:

> "Adipose cells [body fat] constantly break down and resynthesize triacylglycerols, but synthesis [of more body fat] cannot proceed without an *external supply* of glucose. Thus, externally supplied glucose [from food] is required."

Harper's Illustrated Biochemistry (26th edition, pages 231–232) states:

> **"A high intake of fat *inhibits* lipogenesis [creation of more body fat]**…. In adipose tissue [body fat] and skeletal muscle, liproprotein lipase is activated **in response to insulin** [a response to carbohydrates, not dietary fat]; the resultant free fatty acids are largely taken up to form triacylglycerol reserves, while the glycerol remains in the bloodstream and is taken up by the liver…. **Fatty acids** (and **ketone bodie**s formed from them) **cannot be used for the synthesis of glucose**."

PEO Solution analysis: Eating FAT CANNOT make patients FAT. However, excess consumption of non-PEOs—saturated & monounsaturated fats—inhibits the burning of excess body fat for energy. The medical textbooks are quite clear about how patients get fat, and how they can stay lean-for-life.

2008 Newsflash: Just like fruits fulfill our natural "sweet tooth," fats fulfill our appetite.

Just as patients have a natural desire for sweets, they have a natural "fat sensor" for satiety, too. These "sensors" work more powerfully than mere stomach volume. As a self-test, take six egg whites and cook them with no butter. You'll be starving just 15 minutes after eating them. Compare this to adding two yolks. You'll be full and contented.

This mechanism was discussed in *Metabolism* in **2008,** with regards to the fatty acid, oleoylethanolamide, which communicates satiety to the brain.

> "Here, we report that ***duodenal infusion of fat stimulates*** oleoylethanolamide (OEA) mobilization in the proximal small intestine, whereas infusion of ***protein or carbohydrate does not***."

> "In conclusion, our studies identify OEA as a key physiological signal that specifically links dietary fat ingestion to across-meal satiety."[13]

13 Schwartz, GJ, et al., "The Lipid Messenger OEA Links Dietary Fat Intake to Satiety," *Cell Metabolism*, Vol. 8, Issue 4, Oct 8, **2008**, pages 281–288.

PEO Solution analysis: Once again, ***the truth gets published, but not publicized***. Although this experiment was measuring olive oil's omega-9, the researchers are on the right track; *fats are what count for satiety*. The results would have been even better if PEOs were also consumed. As you discovered in chapter 4, a "fat-free," high-carbohydrate diet places patients on the path to diabetes and obesity!

21st CENTURY NEWSFLASH: You will hear time and time again, that patients are "overdosed" with too much omega-6. **This is NOT true**. Good health **requires** a preponderance of dietary **Parent omega-6.**

1. When tissue analysis is performed, the average person has approximate **11:1 Parent omega-6** to **Parent omega-3** in **tissues and organs**. Humans REQUIRE much more Parent omega-6 than Parent omega-3. In fact, most Parent omega-3 is oxidized (burned for energy)—unless the excess is so great that it can't all be used, and a portion is ***improperly incorporated*** into tissue.
2. **The bulk of Parent omega-6 is *adulterated* and not fully usable**. All supermarket/restaurant commercial cooking oil is adulterated and not fully functional. **PEOs MUST BE *unprocessed* or *organically processed* to guarantee full functionality and bioavailability**. Adulterated Parents yield adulterated omega-6 derivatives!

Adulterated vs. Fully Functional—the Essential Difference

SUPERMARKET COOKING OILS ARE TYPICALLY HIGHLY PROCESSED*:

* Only Parent omega-6 containing oils are used in cooking.

3. **Neither Parent omega-3 nor its derivatives is *ever used* for baking or frying.** Parent omega-3 is far too reactive and spoils much too easily (like rancid fish). So *adulteration of Parent omega-3 is a small, insignificant issue. Adulteration of Parent omega-6 is by far the more significant issue.*

Ratio of Tissue Composition			
Tissue	Percentage of Total Body Weight	Omega-6 PEO	Omega-3 PEO
Brain/Nervous System	3	100	1
Skin*	4	1000	1
Organs and Other Tissues	9	4	1
Adipose Tissue (body fat)	15-35	22	1
Muscles	50	6.5	1

* There is virtually NO omega-3 in skin tissue.

Parent omega-6 dominates in tissue and organ structure. It must therefore dominate in plasma lipids, as we see in the table below:[14]

14 Spector, A.A., "Plasma Free Fatty Acids and Lipoproteins as Sources of Polyunsaturated Fatty Acid for the Brain," *Journal of Molecular Neuroscience*, Vol. 16, **2001**: 159–165, "Most of the plasma-free fatty acid (EFA) is derived from the triglycerides stored in the adipose tissue [body fat]." [Note: Organs, including the brain, use these EFAs for structural incorporation.]; R.S. Chapkin, et al, "Metabolism of essential fatty acids by human epidermal enzyme preparations: evidence of chain elongation," *Journal of Lipid Research*, Volume 27: 954–959, 1986; Markides, M., et al., "Fatty acid composition of brain, retina, and erythrocytes in breast- and formula-fed infants," *The American Journal of Clinical Nutrition*, 1994;60:189–94; Agneta Anderson, et al., *American Journal of Endocrinological Metabolism*, 279: E744-E751.

Percentages of linoleic acid (LA) & alpha linoleic Acid (ALA) in Plasma & Classes of Lipids				
Fatty Acid	**Plasma % (Unesterified)**	**Plasma % Triglycerides**	**Plasma % Phospholipids**	**Plasma % Cholesterol Esters**
LA (parent omega-6)	17	19.5	23	50
ALA (parent omega-3)	2	1.1	0.2	0.5
Parent omega-6: Parent omega-3 Ratio	**8.5:1**	**17.5:1**	**115:1**	**100:1**

Since omega-6 is the only PEO used in cooking, then if nothing is done to offset its adulteration, all organs, tissues, cells (100 trillion cells), and cellular mitochondria have impaired membranes. With 100 trillion cell membranes nonfunctional, would you expect problems? YES.

Claims will be made that the average American consumes twelve to twenty times more Parent omega-6 than Parent omega-3. I have two responses. First, we need an 11:1 ratio, as the above clearly shows. The majority of Parent omega-6 is highly adulterated—at least 50% is not fully functional. Second, to reach a 20:1 ratio is highly improbable because animal-based protein includes Parent omega-3 in its cellular structure, and most people do consume some seafood each week.

WARNING: Americans suffer a widespread functional Parent omega-6 DEFICIENCY.

As expected, outcomes from studies using adulterated oils are typically negative. Adulterating oils by hydrogenating or interesterifying them is known to cause cancer, cardiovascular

disease, and diabetes. Am I the only one differentiating adulterated from unadulterated Parent omega-6? No. Professor Stephen Anton et al. published a superb 2013 review titled **"Differential effects of adulterated versus unadulterated forms of linoleic acid on cardiovascular health."**[15] This topic will be expanded upon in chapter 8.

PATIENTS NEED TO KNOW: PEOs are the ultimate natural energy drink because they increase cellular oxygenation. Carbohydrate-based or caffeinated/stimulant "energy" drinks are not the answer.

The Power of Parent Omega-6 in Nuts

Patients are misinformed about the omega-3 content of nuts. Patients are told that unprocessed nuts have lots of omega-3 and that is why they are healthful. This is completely incorrect. The truth is there is insignificant omega-3 in nuts and their power comes from Parent omega-6! Here is a chart that compares the amount of Parent omega-6 to Parent omega-3 in nuts.

Aside from walnuts—which still contain a whopping five times more Parent omega-6 than Parent omega-3—the chart shows how insignificant the Parent omega-3 content is in nuts.

15 Anton SD, et al., "Differential effects of adulterated versus unadulterated forms of linoleic acid on cardiovascular health," *J Integr Med*, **2013**; 11(1): 2–10.

Sampling of PEO Content in Nuts			
Omega-6s (per 100 grams)	(g)	Omega-3 (per 100 grams)	(g)
Walnuts	28	Walnuts	5.5
Hazelnuts	4	Hazelnuts	trace
Cashews	8	Cashews	trace
Almonds	10	Almonds	trace
Brazil	23	Brazil	trace
Pecans	23	Pecans	1 gm
Pistachios	14	Pistachios	trace

This doesn't stop the fish oil proponents from giving Parent omega-3 all the credit for the PEOs in nuts.

Next Page:
Sampling of PEO Content of RAW Fruits/Vegetables/Meat/Fish

Nature's Provision of PEOs in Fruit, Vegetables, Meat and Fish

I thank UK medical biochemist Nicholas Dynes Gracey for his penetrating insights, and for providing the following important information.

Parent omega-6 /Parent omega-3 milligrams in one pound of various fruits and selected foods. The following chart, which shows the naturally occurring ratio of Parent omega-6 to -3, is an indication that Nature wants us to consume lots of Parent omega-6.

Sampling of PEO Content of RAW Fruits / Vegetables / Meat / Fish Source: NutritionData.com—based on USDA SR-21		
Food	Parent Omega-6 (mg/pound)	Parent Omega-3 (mg/pound)
Apple	141	32
Avocado	7,600	568
Banana	208	123
Beet	250	23
Blackberry	844	427
Blueberry	400	263
Brussels Sprouts	204	449
Cabbage	77	0
Carrot	522	9
Cherry	123	118
Coconut	1,622	0
Dandelion	1,185	200
Grape	168	50
Herring	590	468
Kale	627	817
Lamb	3,855	1,134
Lemon	286	118
Lettuce (romaine)	213	513
Lime	163	86
Mackerel	994	722
Mango	64	168
Melon (cantaloupe)	159	209
Milk	1,698	236
Mint	245	1,534
Olive	2,469	186
Orange	104	41
Parsley	522	36
Papaya	27	113
Pear	132	0
Pepper (sweet, red)	204	113
Pineapple	104	77
Plum	200	0
Raspberry	1,130	572
Salmon	781	1,339
Sauerkraut	154	150
Steak (grass-fed, lean)	363	68
Steak (chuck roast with fat)	9,675	4,531
Spinach	118	626
Strawberry	409	295
Tomato	363	14
Watermelon	227	0

Reproductive/Ob-Gyn Physicians take note:
PEOs increase sperm vitality, motility, and morphology.

According to a **2012** study, "Findings demonstrated that **walnuts** added to a Western-style diet [**statistically significantly**] **improved sperm vitality, motility** and **morphology**."[16]

The reason for the huge success? Parent omega-6 and Parent omega-3 levels increased in the intervention group. **Walnuts** contain **five times more Parent omega-6 than Parent omega-3**, yet researchers *wrongly* give all the credit to walnut's small Parent omega-3 component, neglecting its critical Parent omega-6 component. The Parent omega-3 component is significant but far from the whole story. Of note, there was **no difference** in EPA / DHA (**derivative**) levels, ***only PEO levels.***

NEWSFLASH: MEN need More PEOs[17]… "Gender has a major, but inadequately understood, impact on EFA [PEO] requirements. *Male animals require a higher EFA intake than females…*"

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16 Ribbins, WA, et al., "Walnuts Improve Semen Quality in Men Consuming a Western-Style Diet: Randomized Control Dietary Intervention Trial, *Biology of Reproduction*, August 15, **2012**, DOI:10.1095/biolreprod.112.101634.

17 Horrobin, D.F., "Nutritional and medical importance of gamma-linoleic acid," *Prog. Lipid Res.*, Vol. 31, No. 2 (1992): 163–194.

Five Case Studies

CASE STUDY: Lowered Blood Pressure, Higher Energy, Better Sleep, Better Skin

Dear Professor Peskin

My husband (65) and I (63) have been taking PEO for about 6 months now. We are also following the *24 Hour Diet*. Great changes have happened:

- My husband's **high blood pressure is now normal** (he cannot stop telling everyone about you and PEO).
- **Hair loss has been reversed** and new hair is growing which makes him very happy. (He has good amount of hair, but had lost some in the top of the hair, which NOW is full again, just like a young man.)
- **Energy level in both of us is wonderful**. He is a runner and loves the new concept you give on not overdoing exercise.
- Both of us have a **much better clear and smooth skin**.
- **Sleep better**.

Thank you for your great work.
Lucy P.

CASE STUDY: Significantly Faster Healing

Hi Brian,
You wrote about PEOs helping people to heal 30–50% faster after surgery (probably in your presentation in Munich **2012**). I can

definitely verify that is true in my case. Last year in March I had a mastectomy, and another one this year in July. In addition this year I had hand surgery as well as knee surgery, and **I healed very quickly with each one**. The man I've gone to for over 20 years for lymph massage (for general health), is always **amazed at my healing speed**, and has told me on more than one occasion that **I heal 50% faster than most other people do.** So just wanted to pass that on to you. Those PEOs definitely help.

P.S. I had another breast cancer Tumor Marker test done, and dropped it again from 11 to 8 (anything under 38 is normal). So I'm sure that your recommendations of PEOs, minerals, and Essiac detoxifier are making me more and more healthy, and will hopefully keep me in remission forever.

Pat H.

CASE STUDY: Pain-free and Energized at Age 85

Dear Professor Peskin:

I would like to tell you how much my life has been positively affected **since 2001** when I began following the recommendations in the **PEO Solution**. I can honestly say that I have no aches or pains in my body and I feel energized most every day. In fact, I'm so healthy that my doctor thought my lab results' chart had the age incorrectly stated—he **thought I was 58 years old— actually I'm 85 years old!**

I have only recently retired from an active life as a dance instructor and **during those last 11 years from age 74 to 85, I went far beyond what I ever expected as a senior citizen**. I truly believe the advanced medical science in **PEO Solution** have provided this

vitality to 85 years of age—and shooting for 100! Thank you so very much!

Sincerest regards,

Allen Darnel (Kentucky)

CASE STUDY: Seizures in Pet Dog Have Stopped

Dear Prof. Brian Peskin,

I would like to share my experience with [treating] a **pet dog having chronic seizures** with PEOs. My patient requested to do something for his **pet dog having chronic seizures**.

I thought [of] giving PEOs and prescribed [them] to the dog morning and evening with meals. I was surprised to hear that the **seizures totally stopped after one week**. I was very **much thrilled and couldn't believe it myself**! I should give all the credit to you. Thanks and **no words are adequate to convey my sincere thanks to you for bringing this to the world**.

You have been a ***boon and hope for medicine of the future in the management of heart disease, cancer, neurological problems, and chronic diseases***.

Thanks for everything.

Regards,

Jagadish Donki, MD (INDIA)

CASE STUDY: Lowered blood pressure, improved vision, improved knee joints

My 86-year-old father had slowly declining health. He suffered from painful knee joints requiring the use of a cane. High blood

pressure (in excess of 150/80) and more recently eye problems affecting his close up vision (distance vision was fine but had unexplained bad headaches when reading or watching TV). I got him to try your PEO recommendations. ***After about 5 weeks of taking the PEOs he can now walk 1 mile unaided, his vision problems are greatly improved and when I last tested his blood pressure, it was 125 over 80!***

Needless to say he is now convinced the PEOs do actually work! **It's great to see such a positive result in an elderly person,** as I wasn't sure if the results would be so good. I've advised him to increase the dosage slightly to 2 teaspoons a day to increase the effectiveness. **He has been taking prescription drugs for quite a long time now**, blood pressure drugs, water tablets for kidney problems, a daily statin (not good I know!) and a baby aspirin daily (awful again).

If the PEOs continue to give health improvements then hopefully I may persuade him to slowly stop taking the statin and aspirin, as I am aware of the problems these drugs cause.

Kind Regards,

David Armes

Does high consumption of Parent omega-6 lead to high levels of arachidonic acid (AA)?

Quite the contrary. A common misconception among physicians is that all Parents are supposed to become derivatives. Nothing could be further from the truth. **There are biochemical and**

physiologic *feedback systems* that must be understood. In fact, the more Parent omega-6 consumed, the less AA is formed. This fact has been confirmed and published decades ago! You will soon discover in chapter 7 that extremely few omega-3 derivatives (EPA / DHA) are made from Parent omega-3. It is likewise with the omega-6 series, too. Numerous clinical trials measured blood AA levels.

We see from a journal article published in **2013**:[18]

> "Based on **data obtained from *36 articles* containing *over 4,300 participants*, dietary intake of LA was not associated with serum or plasma phospholipid levels of arachidonic acid [AA].** When dietary LA levels were **increased up to six-fold, no significant changes in arachidonic acid** levels were observed. Similarly, decreasing dietary intake of LA by up to 90% was not associated with changes in arachidonic acid levels in the phospholipid pool of serum or plasma. ***To date, no evidence exists to support the proposition that unadulterated forms of LA [Parent omega-6] are pro-inflammatory*** in the range of current diets. In contrast, there is increasing evidence that **LA has anti-inflammatory properties**." [Note: The superb anti-inflammatory effect of Parent omega-6 and its derivatives is well-known from the biochemistry and physiology.]

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18 Anton SD, et al., *J Integr Med*, **2013**; 11(1): 2-10.

Anti-aging physicians take note: PEOs Ensure Top Mitochondrial Efficiency

PEOs are the ultimate support for mitochondrial integrity and functionality. This secret is uncovered when you analyze cardiolipin. A link to my Townsend Letter article[19] is included in Scientific Support for chapter 6, and is a "must-read" for specialists in oncology, cardiology, and anti-aging medicine.

The omega-6 series extends life span

I thank Francis LaPlante for sending me the *Science Daily* article titled, "Cellular Renewal Process May Underlie Benefits of Omega [-6 series] Fatty Acids, which reports on the journal article titled, "ω-6 polyunsaturated fatty acids *extend life span* through the activation of Autophagy."[20] (*See* more Scientific Support at PEO-Solution.com.)

> "These results show not only that dietary supplementation with ω**-6** PUFAs **activates a conserved cellular response** normally triggered by fasting, but also that long-term administration of ω**-6** PUFAs can render the beneficial effects of **low-caloric intake** even in ad libitum feeding conditions…."

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19 "Cancer and Mitochondria Defects: New 21st Century Research," *Townsend Letter*, August/September **2009**: 87–90.

20 O'Rourke, Eyleen, J., et al., ω-6 Polyunsaturated fatty acids extend life span through the activation of autophagy," *Genes & Development* (**2013)**. Published in advance February 7, **2013**, http:// genesdev.cshlp.org/content/27/4/429.full**.**

PEO Solution analysis: It is the omega-6 series that is critical, not the omega-3 series. Their experiment used epithelial tissue, which comprises skin, the intima (artery linings), and the linings of all organs. *All carcinomas suffer epithelial defect*. We see how critical this tissue lining is. **With supplementation, life span is increased and patients get the benefits of "calorie restriction" without starving. Adding Parent (rather than derivative) omega-6 would be even more beneficial as it fulfills the appetite and reduces cravings** for sweets, as Dr. Cavallino proved. *Fish oil fails again because there are no fish oil components—either Parent or derivative—in epithelial tissue*. Furthermore, Parent omega-6 (this study used derivatives) is important to patients' eating less and losing more body fat without cravings. (*See* Scientific Support for more information.)

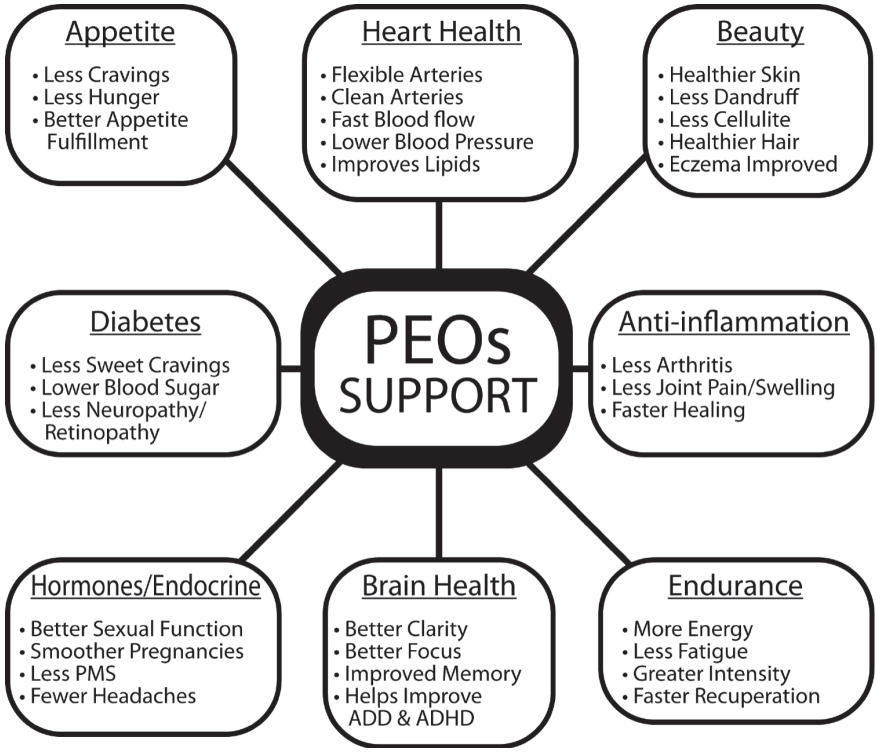
The next chapter will detail the failure of marine / fish oils and the success of the "Power of the Parents." This is foretold in a study reported in an article in the journal *Circulation* in **2008**.[21] Researchers studied 1,819 subjects who had had a first non-fatal acute myocardial infarction (MI), and an equal number of control subjects, all living in Costa Rica. In this study, intake of alpha-linolenic acid was much lower than the control group; however, intake of fish was similar, with considerable variation within each group. An inverse relationship was observed between amount of alpha-linolenic acid (Parent omega-3) measured in adipose tissue and the risk of nonfatal, acute MIs. Intake of EPA and DHA didn't modify the association between lower alpha-

21 Hannia Campos, H., et al., "Alpha-Linolenic Acid and Risk of Nonfatal Acute Myocardial Infarction," *Circulation*, **2008**; 118:339–345.

linolenic acid and higher risk of non-fatal MIs. It was concluded that consuming vegtable oils rich in alpha-linolenic acid (Parent omega-3) would have a protective affect against MIs.

Important Note: This result is **independent** of the level **of fish consumption**. Given all of fish oils supposed miraculous claims, didn't these researchers wonder why? However, the researchers understand that the Parent omega-3 did something the derivatives didn't do.

Eight Categories of PEO Support



Appetite

Many Americans suffer from constant food cravings. Once an individual's PEO deficiency has been eliminated, appetite and cravings significantly decrease. When cravings diminish, patients are:

- less hungry, keeping you
- satisfied longer, with
- fewer cravings for sweets. …

If you are PEO deficient, then your body is forced to keep you hungry all the time, hoping the next meal contains the necessary PEOs. Since commercial food processing destroys PEOs, many people stay constantly hungry.

With PEOs, patients achieve a better weight and waistline.

Heart Health

Heart attack victims often have depleted PEO levels, including the PEO derivatives AA and EPA. [Note: EPA is a Parent omega-3 derivative.][22]

PEO deficiency is called an "**independent risk factor**" **for heart attack**. This means that REGARDLESS of cholesterol levels, if you are PEO deficient, you are at great risk for cardiovascular disease.[23]

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22 Miettinen, T.A., et al, "Fatty-acid composition of serum lipids predicts myocardial infarction" *British Medical Journal (Clin Res Ed)* 9 Oct 1982; 285:993.

23 Miettinen, T.A., et al, *British Medical Journal*, 285:993–996.

New England Journal of Medicine states, "Diets high in polyunsaturated fat [PEOs] have been **more effective** than low-fat, high-carbohydrate diets in **lowering cholesterol** as well as the **incidence of heart disease**."[24]

Vascular-related disease is the #1 killer of Americans. PEOs assist heart health by producing the following: prostaglandins, eicosanoids, and leukotrienes. These substances are a made by your body "as needed" from PEOs and, in particular, from Parent omega-6. These biochemical agents ensure that:

- arteries remain flexible,
- arteries remain clean,
- arteries stay unobstructed,
- blood pressure is normalized, and
- platelets don't clump together, because Parent omega-6 and its metabolites are natural "blood thinners."

Hence, with sufficient PEOs, atherosclerosis and arteriosclerosis are minimized, which significantly reduces your risk of heart attack.[25]

Few of us were told that **statin drugs mimic the action of PEOs** because **"statins and polyunsaturated fatty acids have similar**

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24 Hu, Frank B., M.D., et al, "Dietary Fat Intake and the Risk of Coronary Heart Disease in Women," *New England Journal of Medicine*, 337:1491–1499.

25 Crawford, M.A., "Commentary on the workshop statement. Essentiality of and recommended dietary intakes for Omega-6 and Omega-3 fatty acids," *Prostaglandins Leukot Essent Fatty Acids* **2000** Sep; 63(3):131–4 and *Progressive Lipids Research*; 20:349-362.

actions."[26] Doesn't it make sense to try the "real thing" instead of the imitator, particularly in light of the known side effects of statins, which range from memory loss to sexual dysfunction to muscle problems to immune depression, and more?

Beauty

There are numerous cosmetic benefits from PEOs. PEOs assist with the following:[27]

- healthier skin (smoother with fewer blemishes),
- healthier hair,
- faster healing of cuts and scrapes,
- faster healing from surgery,
- less dandruff, and
- less cellulite.

Diabetes

Diabetes has become the **#1 epidemic IN THE WORLD**!

In America there are over 100,000 new cases a month with no end in sight. In 1996, almost a decade ago, an amazing 58 percent of all adult hospital admissions at the Methodist Hospital in Houston, Texas were diagnosed with diabetes as a secondary

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26 Das, U.N., "Essential Fatty Acids as Possible Mediators of the Action of Statins," *Prostaglandins, Leukotrienes and Essential Fatty Acids,* Vol. 65, No. 1, July **2001**.

27 Horrobin, David, "Fatty acid metabolism in health and disease: the role of -6 desaturase," *Am J Clin Nutr* 1993:57(suppl.):723S-7S.

condition![28] This means that although the patients weren't admitted for diabetes, they were diagnosed with this disease.

PEOs come to the rescue both to help prevent and help control diabetes—especially, the complications of diabetes:

- Neuropathy (nerve damage). PEOs have the power to both stop and improve neuropathy.[29]
- Retinopathy (eye damage). PEOs help improve retinopathy and help protect against macular degeneration, too.

Many diabetic patients (and non-diabetics, too) report that PEOs significantly **help reduce their carbohydrate and sweets cravings**.

Carbohydrates and sweets are the worst foods to have at night because they cause elevated blood sugar levels, which last for hours! You discovered its solution in chapter 5 with the Fruit/Protein Powder Smoothie.

Elevated insulin levels are associated with impaired clotting (causing blood clots, leading to heart attack and stroke).[30] PEOs make insulin work more effectively in the cell membrane.

With decreased carbohydrate cravings and consumption, a diabetic's blood sugar levels will decrease, and they will lose weight, too.

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28 Carolyn Moore, Ph.D., R.D., L.D., C.N.S.D., Manager, Clinical Nutrition Services, The Methodist Hospital, Houston, Texas, 1998. Reported at conference on obesity I attended. The statistic is based on more than 25,000 patients.

29 Horrobin, David, *Am J Clin Nutr,* 1993:57(suppl.):723S-7S.

30 American Diabetes Association's 59th Annual Scientific Sessions, June 1999, *Journal of American Medical Association*; **2000**; 283:221–228.

PEOs are a diabetic's best friend.

The best formulation for a diabetic includes a small amount of GLA (the first Parent omega-6 derivative) from borage or evening primrose oil (preferred), making it less likely that their bodies will be unable to create GLA out of Parent omega-6 PEO.[31]

Anti-inflammatory

Arthritis and joint pain are a significant source of pain for many Americans. **You need to know that your body's natural steroids (anti-inflammatories) are produced from PEOs**.[32] Therefore, they help reduce pain.

- Auto-immune disorders are helped, too because your body can naturally produce prostaglandins and leukotrienes.
- Rheumatoid arthritis is helped.

"Derivative" PEOs work best at lower levels, supporting our recommendation that few derivatives are needed and much greater amounts of PEOs are required.[33]

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31 American Diabetes Association's 59th Annual Scientific Sessions: 283:221–228.

32 Murray, Robert K, et al, *Harper's Illustrated Biochemistry*: 117, 118, 123, 438; *New England Journal of Medicine*, 337:1491–1499; Sinclair, H.M., "Essential Fatty Acids in Perspective," *Human Nutrition: Clinical Nutrition*, (1984) 38C, pages 245–260; Bowen, Phyllis, et al., "Postprandial Lipid Oxidation and Cardiovascular Disease Risk," *Current Atherosclerosis Reports*; 6:477-484, **2004**.

33 "Metabolism of polyunsaturated fatty acids by skin epidermal enzymes: generation of anti-inflammatory and anti-proliferative metabolites," *American Journal of Clinical Nutrition* **2000**;71(suppl):361S–6S.

Hormones & Endocrine System

PEOs are the basis of our sexual hormones, both male and female. Today, as compared to years ago, men and women are unknowingly ingesting large amounts of female (estrogen-based) hormones from food additives and animal-feed additives. PEOs give your body the opportunity to correct this imbalance.

Many women report that PMS symptoms are decreased.

People experience significantly fewer and less severe headaches.

PEOs are an important element in understanding erectile dysfunction. Consequently, men can take advantage of the multi-faceted power of PEOs.

Smoother pregnancies occur because of PEOs. However, the proper Parent omega-6/-3 ratio is required.[34] PEO requirements for a pregnant woman are higher than normal.

With a PEO deficiency, a woman can expect exhaustion and cellulite to increase after her child is delivered. Nature first provides necessary PEOs to the fetus. Only if any PEOs remain (an excess) will an expectant mother receive them. This is why it is critical for pregnant women to ingest plenty of Parent PEOs for both themselves and their developing children.

Brain Health

The brain is approximately 60% fat. Much of it is supposed to be PEO-based. With a potential PEO deficiency solved, your brain runs with:

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34 "Long-chain polyunsaturated fatty acids, pregnancy and pregnancy outcome," *American Journal of Clinical Nutrition* **2000**;71(suppl.):285S-91S.

- maximum speed,
- better focus,
- better clarity, and
- improved memory.

It is expected, although we have not proven, that Alzheimer's occurrences would decrease if PEO deficiencies were eliminated.

ADD and ADHD have become common illnesses with no end in sight. A significant number of ADD children (40% of them) had significant deficiencies of PEOs as measured in their blood in this study.[35]

Males are known to have a much greater PEO requirement than females.[36] This is a reasonable explanation as to why the disorder is much higher in males. PEOs also have a calming effect on the endocrine system. It is far preferable to use nutritional means to restore health in ADD/ADHD children whenever possible, as there are many physical conditions that manifest the same symptoms as ADD/ADHD (for example, nutritional deficiencies, allergies, and toxicities) which should first be eliminated as possible causes prior to resorting to behavior-modifying drugs such as Ritalin. The article "50 Conditions Mimicking ADHD" lists fifty conditions parents should have their physicians check for before they settle for the diagnosis of ADD or ADHD in their child.[37]

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35 Avila, Rafael, "Attention Please," *Energy Times*, December 1996, pages 52–58. The article was published in the *American Journal of Clinical Nutrition*.

36 *Medical Hypotheses* 1981 May; 7(5):673–9.

37 "50 Conditions Mimicking ADHD," www.incrediblehorizons.com/

Endurance

PEOs give everyone:

- more energy,
- less fatigue,
- greater intensity during exercise, and
- faster recuperation after exhaustion.[38]

Furthermore, PEOs are the building blocks of the body's own natural steroids.[39]

The Answer to the Autism Epidemic?

Autism is an epidemic today. You will discover in chapter 7 how **fish oil potentially damages the brains** of both infants and adults because they displace the critical omega-6 series metabolites. The medical journal's authors **specifically warned against feeding fish oil to infants**. However, fish oil consumption can be much more sinister. The pregnant mom can *un*knowingly be feeding her unborn baby a brain-damaging substance. If this continues once breast-feeding starts, a mom taking fish oil supplements can *un*knowingly cause even more damage to her newborn. A recent

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mimic-adhd.htm, accessed May 15, 2013.

38 Murray, Robert K, et al, *Harper's Illustrated Biochemistry*: 93, 191, 418; *Principles of Biomedical Chemistry*, 1998: 226; "Essential fatty acids in perspective," *Hum Nutr Clin Nutr* 1984 Jul;38(4):245–6.

39 Murray, Robert K, et al, *Harper's Illustrated Biochemistry*: 117, 118, 123, 438; *New England Journal of Medicine*, 337: 1491–99; Sinclair, HM, "Essential Fatty Acids in Perspective," *Human Nutrition: Clinical Nutrition*, July; 38(4): 245–260; Bowen, Phyllis, et al., "Postprandial Lipid Oxidation and Cardiovascular Disease Risk," *Atherosclerosis Reports*; 6: 477–484, **2004**.

article in *Town and Country Magazine* titled "Autism's Angels" spotlighted this new epidemic:

> "Autism on the rise: Autism is the nation's **fastest-growing developmental disorder**.
>
> "Twelve years ago 1 child in 10,000 was diagnosed with it; now 1 in 166 children will fall somewhere on the autistic spectrum….
>
> "Currently, 1 million to 1.5 million people are diagnosed with autism in the United States—a number that could reach 4 million within a decade if the trend continues."[40]

◗ **PEO Solution** analysis: In slightly over a decade, autism has grown by a factor of 60-fold, from 0.01% to over 0.60%. Now a little less than 1 out of every 200 children will be sentenced needlessly to a life with autism and the numbers are constantly increasing. How can such a devastating disorder increase by such an alarming rate in just a decade? We, as a society, are doing something terribly wrong. Healthy essential oils in the correct Parent forms and ratios are integral to both the developing and mature brain as well as the complete neurological system. This is another reason **that I emphasize PEOs are the Foundation of Radiant Health**. Pregnant and nursing moms need to ensure they are doing all they can for their unborn and infant child by understanding the significance of this discovery.

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40 Guernsey, Diane, "Autism's Angels," *Town and Country Magazine*, August **2006:** 90–101, 131–133.

The Answer to Skin Cancer?

A very important fact in combating skin cancer is to understand that our **precious skin contains virtually no omega-3 or its derivatives; however, our skin is loaded with Parent omega-6.**[41] The skin comprises approximately 4% of body weight—your skin weighs more than your brain!

If your skin is deficient in Parent omega-6 through **following incorrect nutritional recommendations, we would expect skin cancer to run rampant—and it does**. There are over one million new skin cancer cases each year. With recommendations by physicians and nutritionists to take "lots of omega-3" and "no omega-6," it becomes obvious why skin cancer continues to skyrocket. You haven't given your skin the essential ingredient that it needs. Now you can protect yourself with the PEO recommendations in this simple plan.

Improved Outcomes for Surgery

The eminent Italian **plastic surgeon**, **Dr. Roncarati Andrea,** had this to say regarding improved patient outcomes with PEOs:

February 25, 2005

In my practice as a plastic surgeon, I have found myself understanding that to obtain good post-operative results according

41 R.S. Chapkin, et al., "Metabolism of essential fatty acids by human epidermal enzyme preparations: evidence of chain elongation," *Journal of Lipid Research*, Volume 27: 945–954, 1986.

to the intensity that varies from minor to major operations (the majority are very intense operations), the repair phlogistic resolution, edema and the scar tissue are all key factors to success.

My results have improved according to the use of new surgical techniques as well as the use of antibiotics and antiphlogistic [anti-inflammatory] drugs.

However, I must point out **a new major factor that improved greatly my patients' surgical results** after introducing certain "essential fatty acids" from 15 days prior to 30 days after surgery.

The level of tissue repair is what I look for especially in my practice and having the trial opportunity of five patients using Brian Peskin's EFA recommendations, I found **in all five patients an enormously improved result with better recovery** by just assuming a simple prescribed medical therapy with his EFA-based recommendations.

Unlike fish oil, which causes excessive bleeding, the Peskin Protocol *does not cause excessive bleeding*. In fact, it makes surgery easier and improves patient recovery.

This improved recovery included:

1. **faster** healing
2. **less** inflammation
3. **less** scar tissue and
4. **less** pain to the patient.

I finally believe and feel it is necessary to continue this very interesting tissue repair in the near future.

Dr. Roncarati Andrea

What Supplemental PEO Formulation Ratio is Best?

After nearly two decades of assisting physicians around the world, I have determined the optimal *prophylactic* amounts are 3 gm/day for a 160-pound patient. For disease states, much more may be administered on a temporary basis:

A balanced blend of Parent omega-6 / -3 in favor of Parent omega-6, with a ratio of 2.5:1 to 1:1—NO fish oil. Sources:

- Flax is fine for the Parent omega-3 component.
- Sunflower, safflower, pumpkin, evening primrose, oil, etc. are excellent for Parent omega-6.
- **A GLA-containing oil is highly recommended.** Rampant patient inflammation was not foreseen by Nature.

Quality and composition:

- Oils **MUST be organically grown and processed**. "Cold pressing" alone is insufficient.
- **High linoleic** (**LA—Parent omega-6**) MUST be used with **minimum oleic** content. Otherwise, the formulation will not have a sufficient absolute quantity of "active ingredients." **High oleic** oils are NOT to be used.
- Oils must have a **long, safe history as a culinary oil**, unlike hemp/soy.
- Oils must be **tested individually and after combination** by a certified lab to ensure the peroxide values (PV) are low. The blend's PV values are merely the potential to cause oxidative damage. PV values should be low but **much more important is ensuring the p-Anisidine is**

low (preferably <4), **the TBA value is low** (preferably < 0.06), **and the FFA (free fatty acids) are low.** PV measures initial stages of lipid peroxidation—a potential—to oxidize. When these initial hydroperoxidines break down they produce the more important secondary and terminal stage products. TBA is a specific test for important Malonaldehyde along with other (often volatile) aldehydes. Volatile aldehydes and other later stage aldehydes leave behind a non-volatile product that the p-Anisidine test measures. Free fatty acids (reactive) should be <1%.

- A **blend of multiple oils** must be used to minimize potential patient sensitivity to any particular oil. I personally suggest a blend utilizing at least four oils.

From Dr. Rowen:

Over the last 26 years, I have devoted myself to what I consider is the biggest factor in disease causation. Simply put, it is the delivery of, or utilization of oxygen. To put in simpler terms: consumption of oxygen underlies all disease states. Almost all the energy our cells make for normal functioning, regeneration, repair, and maintenance comes from oxidative metabolism (burning oxygen). One molecule of glucose will generate just 2 net molecules of ATP in the absence of oxygen, and 34 more if oxygen is present and utilized in the mitochondria. This is a huge

difference, and the health, life and death of your cells is at stake. When infected, your white cells undergo a "respiratory burst," consuming up to 100Xs the amount of oxygen compared to rest. All cells get stressed from time to time. They need more oxygen to make energy to cope with the stress. Not getting it, they will not perform, and possibly worse, degenerate to cancer. Mysterious ailments may be caused by insufficient oxygen consumption in your cells.

I am in 100% agreement with Prof. Peskin in his writings in this chapter. I simply wish to stress two points. One is oxygen, and the other is the wisdom of your body.

Let's start with oxygen. Oxygen is rich in the air. The problem is getting that rich oxygen deep inside our body. It's a long route. All liquids (gas is a liquid) move by pressure. So, oxygen will move from a higher pressure to lower pressure. In air, oxygen is approximately 20% of 760 mm mercury (torr) or 152 torr. When you breathe air, that pressure of oxygen enters your lungs where carbon dioxide is exiting. The carbon dioxide content cuts the pressure of oxygen to about 100 torr. This then is the pressure (force) of oxygen that can move through the inner lining of your lungs (alveoli) into the red cells moving through your pulmonary arteries for return to your heart. A normal person should have a pO2 (pressure of oxygen) of 90–100 in his arteries. Less can be indicative of lung dysfunction or poor transit of oxygen through the alveolar wall. Then, oxygen must be transported in red cells and these cells pushed through your circulatory system by your heart. We are assuming for the sake of this discussion that your heart is properly pumping.

The end of the line for the oxygen is at the tissue's cells. These are fed by the tiniest of blood vessels called capillaries. Once again, pressure comes to bear. When the oxygen-rich red cells containing

oxygen, at say 100 torr, reach your capillaries, the pressure within them is greater than the oxygen pressure in your cells. Oxygen will naturally move (by pressure) from higher to the lower pressure zone. Your tissue cells have lower pressure since they are burning (consuming oxygen and turning it into carbon dioxide). Oxygen must again transit the red cell membrane, then the capillary membrane, diffuse in the fluids through the space between your capillary and tissue cell, then diffuse through the membrane of the tissue cell, and finally diffuse into the mitochondria within the cell—an arduous journey.

Let's now look at all the transits the oxygen must make from your alveolar space (inside lungs) to inside the mitochondria. We'll count membranes: alveolar lining, red cell membrane (going in while in lungs), red cell membrane (exiting upon arrival in capillary), capillary endothelial lining (2 layers–one facing the capillary and the other facing the waiting cells), target cell outer membrane, target cell mitochondria. That's a total of seven membranes for oxygen to cross.

Now I must credit Prof. Peskin for forwarding me the article he quoted above on cystic fibrosis. I had always wondered how oxygen, somewhat water soluble, but not considered oil soluble, managed to cross an oil (fat) cell membrane and get into cells. We weren't taught the mechanism in medical school. We were simply told that it "just does" (that oxygen on its own moves across the cell membrane). But there is much more to this story.

Underwood's report was a breakthrough for me in my understanding of oxygen transport, and it made simple and logical sense.[42] We know that unsaturated fatty acid (double) bonds are

42 Underwood, Ref.: Campbell I.M., et al., "Abnormal fatty acid composition and impaired oxygen supply in cystic fibrosis patients," *Pediatrics* 1976; 57: 480–486.

electron rich (they have four electrons compared to a saturated single bond containing only two), and oxygen is highly attracted to electrons. In fact, that's the mechanism of unsaturated fats becoming rancid. Oxygen attacks the double bond and steals their electrons. A living cell could make use of this property. By having these unsaturated bonds, they will attract oxygen. So, oxygen gets its portal of entry though the oil rich cell membrane via the unsaturated bonds and their exposed electrons. However, this initial oxygen binding is *reversible* in the living cell. Since the innards of the cell is consuming oxygen, and the pressure is lower, the loosely bound oxygen can leave the membrane for the oxygen sink within the cell. **This is a normal process in contrast to oxygen permanently oxidizing said fatty acid and making it rancid**. This excessive harmful oxidation is why cell membranes prefer and are composed of a high preponderance of Parent omega-6—with its two double bonds—and not fish oil's EPA / DHA with their five and six double bonds. Those oxidize spontaneously (become rancid). Much more about this is discussed in future chapters. That does happen to a very limited extent, which is why your cell membranes are rich in vitamin E, which controls oxidative damage.

Then oxygen must cross your mitochondrial membranes where, once inside, it will be consumed to carbon dioxide and water.

Saturated fatty acids cannot conduct oxygen. So, unsaturated fatty acids are critical for transport. This said, you might think that the longer-chain fatty acids containing more unsaturated bonds (like fish oil's EPA / DHA) might be better. I think not.

Long-chain unsaturated fatty acids—in particular, fish oil's EPA/DHA—*auto-oxidize* **irreversibly** in the presence of oxygen, both in air, AND in your body. So, your body CAREFULLY regulates how much

of these derivatives it makes. Consider that the mitochondria, where oxygen is consumed in high-energy reactions, contains virtually no highly unsaturated omega-3 fatty acids, parent ALA or derivatives. Permanently oxidized fatty acids are toxic to your cells, causing rapid aging. In monkeys fed marine oils, their liver membranes became rancid and the organ used up all available vitamin E to protect itself. So clearly, God, in His wisdom, carefully controlled the conversion of the essential fatty acids to the more unsaturated, more vulnerable derivatives. Yet, if we don't have sufficient Parent oils in our membranes, oxygen won't get through. **This was a revelation for me. And, it explained why those taking a high-quality PEO felt and performed better, and quickly.**

The American diet is laden with *adulterated* fats. These are *altered* parent oils that are oxidized, cross-linked (due to heat), hydrogenated (trans fats), etc. **These are not working oils for oxygen transport. Hence, they cause oxygen deprivation within your cells, even if all the mechanical (heart) delivery mechanisms are working**. (This topic is so important that we have devoted an entire chapter to it.) For example, your lungs might have good capacity, your heart pumping an excellent 60% of blood with a single stroke, but with **seven membranes to cross, all compromised with adulterated fats**, you can still have a net oxygen deficit. *Even if you breathe 100% oxygen,* **your body won't be able to overcome this inner transport problem. Giving your body the PEOs**, it can begin to replace the toxic fats in your membranes with life-giving, oxygen-transporting oils, **enabling you to make the most use of the oxygen you breathe in**.

Next, consider God, or for those who prefer a different term—consider Nature. I don't think that God/Nature makes mistakes. We know in medicine that more is not necessarily better, though

the purveyors of fish oil would have you believe that. More HIGHLY unsaturated oils in your membranes is like painting a target on your chest. In this case, oxygen becomes the arrow damaging the more unsaturated oils, which it would not do to the PEOs.

This is especially critical in mitochondria, which are literally furnaces. A blast furnace making steel must have protection in its walls from the heat and reactions within. If the furnace walls are weak and unable to withstand the heat and pressure from the action, it will be destroyed. And so, mitochondria must have strong membranes, permit oxygen to pass, but be resistant to the high-energy combustion within. Derivatives don't match up here. Hence, their *naturally* limited conversion designed by God. Research has shown that when you forcibly raise the amount of derivatives in your blood, your cell membranes and mitochondria also get enriched, likely to your detriment.

I do admit that there might be that "rare" person who has a problem with conversion. But that would be a genetic anomaly and not the usual. Consider, if there were a drug to prevent sickle cell anemia, an unusual genetic condition, would you want to take it without knowing you have the problem? I consider the same effect here. So if you do choose to supplement with marine oil, I suggest that you have your fatty acids measured BEFORE embarking on supplements and then again after eight weeks. This will help you prevent "overdoing" it, and possibly frying your mitochondrial furnace membranes.

As an oxygen-based integrative physician, I consider the real essential fatty acids—PEOs—to be your fatty acid supplements of choice, allowing your body, in its wisdom, to regulate the conversion to the extremely vulnerable and potent derivatives for your specific needs.

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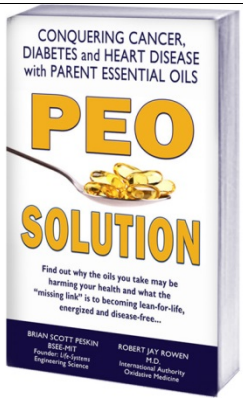

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