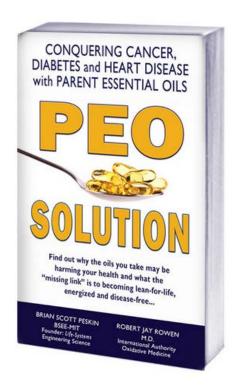
Chapter 11: Sports Medicine



The Athlete Advantage

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Chapter II

Sports Medicine The Athlete Advantage

"It was a pleasure meeting you at the Vegas A4M [American Academy of Anti-Aging Medicine] meeting. I used pharmaceutical grade fish oils for five years and had a number of problems with them. I developed easy bruising, felt tired, and had trouble getting rid of abdominal fat. I then switched to the Parent essential oils [PEOs]. I noticed immediately that my appetite decreased and was able to lose belly fat without having to fight cravings.

"Also my exercise endurance increased when doing strength-training exercises and I did not get 'burning muscles' while working out. I have been extremely satisfied with PEOs. Thank you for your efforts in advancing this science and I look forward to your new advances."

Peter Bales, M.D.

Orthopedic Surgeon (USA)

"I have been a competitive bodybuilder for over 30 years and have won numerous titles over that period. Over the years I have tried every conceivable diet

theory in the book, finally coming to the conclusion that a lower carb, higher protein diet combined with precise Essential Fatty Acid (EFA) levels produced the best results in respect to building lean muscle mass while keeping body fat at a low percentage. It took me a number of years to learn that fats (good fats) were not my enemy. In fact they were essential when it came to building a first class physique.

"Icame across PEO's after reading an article by Prof. Brian Peskin on how PEO's could benefit athlete performance and aid in post workout muscle recovery. I introduced two servings per day of PEO's into my regular nutrition plan, ½ teaspoon taken early morning with breakfast and ½ teaspoon 30 minutes prior to my weight training session. To be quite honest I was not expecting too much from what appeared to be a simple EFA supplement. But I was astounded by how much of a difference the PEO's actually made to my workout performance. There was a significant reduction in lactic acid burn when reaching maximum failure at the end of a set and my overall energy levels while training increased by at least 25-30%!

"While I was impressed by the short-term performance benefits the long-term benefit from continued use of the PEOs was equally impressive. I found that my lean body mass increased while my total fat mass decreased, the perfect scenario for any aspiring bodybuilder. I can only attribute the lean mass gain and body fat reduction to the PEO's having a favorable effect on my natural

Sports Medicine: The Athlete Advantage

testosterone levels, as EFA's are the initial building block of the hormone itself.

"I would recommend PEO's to any serious athlete with the goals of increasing workout performance, strength and achieving a leaner more muscular physique."

Steve Jones (Australia):

Editor-in-Chief — Natural Bodz Magazine
Pan Pacific Bodybuilding Champion

Over 30 years in the health and fitness industry.

[Note: Natural Bodz Magazine (www.naturalbodz. com] is also the No.1 selling magazine on the Magzter digital (magazine) network. Steve is a perfectionist seeking extreme definition for competitions.]

Athletes throughout the world—including professional football players, PGA golfers, hockey players, and martial artists—have put my discoveries to use, but typically don't publicize it. Let's investigate the Athlete Advantage when they incorporate PEOs into their training.

Incorporating PEOs Into Training

The field of **Sports Medicine** benefits from the **PEO Solution** so much that I term PEOs *the Athlete Advantage*. Just 1,500 mg or so of a proper PEO formulation 20 minutes before workouts makes all the difference. You have already discovered how PEOs:

• Increase cellular oxygenation,

- Maximize the structure and functionality of energyproducing mitochondria,
- Are fundamental to faster recuperation and increased endurance,
- Are structurally incorporated into all cells,
- And much, much more ...

In the prior chapters, we have given plenty of "theory" (the world's best medical science available), but wanted to also provide *real-life* applications. Therefore, this chapter focuses extensively on *real-life* results for your patients and clients.

The science of PEOs allows athletes to **increase endurance** and **decrease recuperation time** – a **winning combination**.



PEOs are the body's *natural* building blocks (substrates) of anabolic steroids—produced from cholesterol. The PEO Solution is "the answer" to increased athletic performance.

Newsflash: Athletes obtain a higher threshold before that (lactic) acid "burn" so they have more endurance and need less recuperation after strenuous activity. If athletes can push more weight, muscles increase. When the body recovers quicker using less energy on repair, then muscles grow bigger, faster.

Case Study: I used to train with IFBB Mr. Olympia runner-up, Lee Labrada. We did a very stressful "reverse pyramid" routine. As bodybuilders are well aware, the pain on the 2nd day after training is significant. With PEOs and the Essiac-concept tea (described in chapter 14), there was virtually no "burn"—just muscle failure. Endurance skyrocketed and recovery time significantly decreased.

With PEOs, eye-hand coordination improves. Nerves are made, in part, from these special oils. Peter Ebson, the world's #1 snooker¹ champion (2002), attributed his increased endurance, increased focus, and improved eye-hand coordination to "Parent" omega oils. Virtually any athlete in any sport will see an improvement in eye-hand coordination.

These are just a few of the benefits an athlete can expect.

As a runner, Dr. Broffman makes clear in his sports medicine report, which follows, that **PEO Solution** gives all athletes regardless of age the following advantages:

- Improved exercise tolerance
- Better, faster recovery
- Greater intensity
- Less injury

¹ Snooker is often called "smart man's pool." Greater skill is required since the table is larger, the pockets are narrower, and the ball smaller. It is a very intense (often grueling) game requiring significant endurance.

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I have been a runner initiated into the sport with a pair of Tiger Cortez running shoes in 1971. Now close to 60 I am still running and enjoying it more than ever. Part of the reason I believe for this is the absence of any running caused or related injuries in the last 2 years. Even though my running has actually increased in both distance and the rigors of long distance trail running during this time period I have not been sidelined, a common runner's predicament that would stop me over the last 30 years.

Why is this?

I am older now and I run smarter, more efficiently, overall eat better, cross train and take rest days. But most strikingly was the use of balanced whole plant essential oils 6 and 3 (Parent Essential Oils). It was very palpable within the first few workouts on these oils that my exercise tolerance, especially during hard exercise, was much better. It felt like I had more oxygen supply going to contracting muscles as well as an improved recovery. I was able to achieve two consecutive hard workout days, which I had not been able to do before. A recent example makes the case nicely. A long trail run on Friday, followed by a long bike ride on Saturday followed by an 18 mile trek up Half Dome on Sunday. By Sunday night and into Monday, I was refreshed, exuberant, no fatigue and an overall sense of athletic well being. My impressions seem to be directly related to using the balanced plant oils. Improving oxygenation to the cells during exercise seems to have the following effects for me: Improved exercise tolerance, better recovery and no injuries.

Michael Broffman
Pine Street Clinic

Fewer Injuries

Oxygen Saturation

⇒ Better Training

- Greater Intensity
- More Muscle
- Faster Recouperation
- Less Injury

The So-Called Lactic Acid "Burn"

Under *initial* intense physical stress, the muscles use glucose as a fuel—the energy is manufactured quicker (anaerobically) than in the mitochondria (aerobically), but inefficiently. If muscular activity continues, the **availability of oxygen** used in the electron transport chain is **the limiting factor in performance**. Lactate is merely the conjugate base of lactic acid. Essentially: Glucose \Rightarrow Pyruvic acid + H⁺ \Rightarrow Lactic acid. The hydrogen (ion) causes the "burn." The majority of energy is (initially) produced anaerobically. However, the higher the cellular oxygen levels, the better the reverse reaction: Lactic acid \Rightarrow Pyruvic acid, **and in the presence of cellular oxygen** large amounts of ATP are generated and the lactic acid forms glucose.

The bottom line: The intensified consumption of oxygen during exercise is termed the "oxygen debt / deficit." Increased longer-term endurance—above a few minutes—is absolutely dependent on cellular oxygen levels. The key issue in pain / lack of performance is net buildup of hydrogen ions—the direct cause of the acidity—lowering the pH of muscle and giving pain (a required warning signal) as a signal of the decreased performance ability of the muscle; i.e. cutting the risk of harming the muscle.²

Increased Oxygen Supply at a Cellular Level = Increased Performance

It is helpful to review research on the relationship between increased cellular oxygen and increased performance. This

² Thanks to Keoni Teta, ND, LAc and Jade Teta, ND, CSCS for bringing this to my attention from their excellent July **2010** article, "New Perspectives on Lactate and Lactic Acid," in the *Townsend Letter*.

state of super-oxygenation is called hyperoxia. Current science considers that the greater performance from hyperoxia is because of enhanced oxygen delivery to active muscle.³

As reported in *The Journal of Exercise Physiology*, hyperoxia is thought to increase pulmonary arterial oxygen tension (PaO₂), which, in turn, promotes enhanced diffusion of oxygen through the skeletal muscle. With greater oxygen, there is less degradation of phosphocreatine, a substance in the muscles that boosts energy for muscle contraction. The result is less cellular disturbance as maximal exercise is approached. Work tolerance is improved, independent of the mode of exercise.

When there is less disturbance of the equilibrium of the cell, there is less acidosis. The muscles contract more stably, and exercise is tolerated more. With hyperoxia, there is a greater gradient of diffusion of oxygen from capillary to the muscle mitochondria, and this enhances maximal aerobic capacity.² (For more information, *see* Scientific Support for chapter 12.)

PEO Solution analysis: Hyperoxia is normally defined as merely an abnormally increased supply of blood or increased oxygen tension in the blood. You now know that the key is increased oxygen content at the cellular level, not merely increase blood oxygen level. The following important case study by Dr. Cavallino is conclusive.

We now know how to remedy a cellular oxygen deficiency so

³ Astorino, T.A. and Robergs, R.A., "Effect of Hyperoxia on Maximal Oxygen Uptake, Blood Acid-base Balance, and Limitations to Exercise Tolerance," *The Journal of Exercise Physiology*, Vol. 6, No. 2, May **2003**, pages 9-18.

Sports Medicine: The Athlete Advantage

that the lactic acid produced in the muscles during strenuous workouts is more quickly used as fuel with oxygen. *This reduction in acid "burn" proves the tissue's increased oxygenating capability*. We can now demonstrate that although the muscles still use fermentation short-term, their oxygenating capability has been raised to such an extent that the acid burn is minimized or eliminated.

Let's proceed with an in-depth discussion about the oxygenation/decreased lactic acid buildup discovery. *The Hidden Story of Cancer* details this regarding increased anticancer protection.

Proof of Oxygenation with PEOs—Lactic Acid Burn is Stopped Cold: A "Do-It-Yourself" Test

If you have ever worked out with weights, then you have likely already experienced the so-called "lactic acid burn." It is a burning sensation that comes from acid buildup in your muscles, produced when they **ferment glucose for energy**—much in the same way that a cancer cell does. "Lactic acid burn" becomes a *problem of the past* when PEO supplements are properly used.

Here is a definitive test: First, take about 1,500 mg of a PEO-based oil supplement as recommended. Wait 20 minutes. Then you can simply take a heavy dumbbell and perform "biceps curls" until your arm is completely fatigued. If the muscle fails—you can't hold the dumbbell any longer and there is NO BURN—then you know that your tissues are fully oxygenated. If you get the "burn," keep following the PEO Solution and try again later.

PHYSICIAN'S CASE STUDY: Measurement of Lactic Acid Short-Term (3 minutes)

Dr. Cavallino, Italy's leading prolotherapy specialist, was kind enough to perform a lactic acid test before and after working out with an EFA formulation similar to the one described in **PEO Solution**. Before working out, his resting (no work) blood lactic acid⁴ amount was 4.4 mg/dl.

The normal range is 5.7–22.0 mg/dl. Therefore, his resting level was a whopping 22.8% LESS than the lowest expected value—much less anaerobic glycolysis. This means oxygenation was already maximized in his system before he started the test.⁵ (See Scientific Support.)

Dr. Cavallino consumed about 1,400 mg of a recommended PEO oil blend 20 minutes before performing biceps curls. The results, in his own words, were: "After intense workout barbell biceps bilaterally [both arms] until exhaustion lactase value = 59.2."

PEO Solution analysis: This measurement translates to a temporary lactic acid INCREASE FACTOR of 13.4 times more lactic acid than

⁴ The lactic acid test must be properly performed: no tourniquet, no clenched fist, no physical exertion for hours before the test, and sitting quietly for 10–15 minutes before the test, etc. There are other factors, such as anxiety or ingesting certain drugs, or excessive alcohol consumption, that could invalidate test results. Your physician can discuss these with you to ensure an accurate measurement.

⁵ Dr. Warburg's comments from *The Metabolism of Tumors in the Body*, page 206. Also, see *The Hidden Story of Cancer*, Pinnacle Press.

Sports Medicine: The Athlete Advantage

normal—showing full tissue oxygenation. Typically, just 5–10 times more lactic acid output is expected. Dr. Cavallino's was significantly greater by 34% of the upper expected value, a significant improvement. With the addition of PEOs, we see the **muscle's tremendous capacity for work**. Another significant fact is that, because of the lack of (lactic) acid "burn," we know oxygen respiration is maximized with PEOs. (See Scientific Support for chapter 12 for full explanation.)

More from Dr. Cavallino...

Dear Brian, July 20, **2005**

"I MUST inform you about our positive outcome that my fellow players of the 'Banditi Flag Football Team' in Ferrara expressed very strongly this past Sunday. We played in a 'Championship Bowl' where **teams from all over Italy competed**. We were able to reach the finals [Silver Medal]. The sports event started at 10 am and finished at 5 pm. *My team played very well in all 5 games and since the summer heat was incredibly hot, many players from other teams were close to a heat exhaustion*.

"The majority of the 'Banditi' players were full of energy and said to me that the EFA-containing oils [PEOs], as you suggested, were remarkable, and they couldn't believe the positive outcome. No player from the 'Banditi' team had muscle spasms or any signs of muscle lactic acid [meaning increased oxygenation] due to over-use or exhaustion except for 3 players who refused to take the EFA oils [PEOs].

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"This, Brian, is *real-life* results and proof that the oxygen exchange is far more open to relieve and prevent muscle metabolic exhaustion thanks to the EFAs' biological and physiological properties.

"I would like to give you the maximum credit for this discovery because all my teammates said that your EFA recommendations are fantastic and miraculous....

"We all met up at practice last night and all the players that **followed your PEO recommendations were painless and never experienced such an outcome**. Last year, after any 'bowl game' many players needed 2 to 3 days to relieve the metabolic insufficiency, especially for the pain syndrome. Please feel free to contact me in reference to this remarkable outcome of *real-life* results!"

Dr. Stephen Cavallino [MD] Italy

"P.S. We must really get this EFA discovery into sports medicine."

CASE STUDIES

"Thought you might like to know that through your scientific research I have successfully reduced my body fat percentage from 15% down to 6.23% within 7 months (April 1st to November 17th) without losing any muscle at all. My lean body weight (LBW) stayed at 145 lbs throughout. My energy level couldn't be better.

"I only did general fitness twice a week at 30 minutes a session, but noticed I was still losing fat regardless of whether I

do a workout or not. I noticed that my body had reached its ideal body weight naturally and has stayed there without losing any more weight."

Karl R. (UK)

"...Clients get better performance, faster recovery, and incredible, verifiable, health benefits, all at the same time. By adhering to the PEO Solution my numerous 50+ and older clients actually live the dream of the strength and muscularity of youth as well as excellent health—PEOs are the 'Athlete Advantage!'"

Christine Boss, RPh (USA): Medicinal Chemist and Master Trainer

"I take Parent Essential Oils (PEOs) because they keep my weight constant and maximize both my mental and physical performance during training. I combine PEOs with Prof. Peskin's recommended truly chelated minerals because these help improve my reflexes and speed up the response between brain and body."

Eugene Laverty: World Superbike Rider—2013 Team, Aprilia, Italy

Enhancing Performance Naturally with Protein/Fruit Smoothie Combination

What about sports drinks for performance enhancement? The traditional sports drink is 6-10% carbohydrate, plus electrolyte minerals. But science is showing that a combination of fruit (NOT juice) and protein gives you a significant advantage over the carbohydrate drink, with an increased rate of glucose clearance from the blood. This results in lower blood glucose

PEO Solution

level and increased availability of carbohydrates to the working muscle. Research published in the **2011** *Journal of Strength and Conditioning Research*⁶ shows that this combination improves performance by 8% compared to glucose only, despite the fact that the combination used contained 50% less carbohydrates and 30% fewer calories. (*See* Scientific Support for chapter 12.)



Newsflash: Protein powder / Fruit smoothie combo is an ideal natural performance enhancer—significantly superior to carbohydrate (glucose) alone.

▶ PEO Solution analysis: In this study performed at the University of Texas in Austin, fourteen female cyclists were analyzed. The results confirm the value of the protein powder/fruit smoothie suggested in chapter 5. This experiment clearly showed that blood sugars were significantly lowered with the carbohydrate/protein combination by approximately 10 mg/dl (milligrams per deciliter). Since 70–90 mg/dl is the average blood sugar for a human, this translates to an additional 10%–15% increased fuel for the muscles.

⁶ McCleave, Erin L., et al., "A Low Carbohydrate-Protein Supplement Improves Endurance Performance in Female Athletes," *Journal of Strength and Conditioning Research*, Volume 25, No. 4, April **2011**.

Even Better: Protein Powder/Fruit Smoothie + PEOs

Athletes can easily reach levels of unprecedented performance. This special combination, as detailed in chapter 5, is superb for *naturally* fulfilling the appetite, losing excess body fat, and fulfilling the cravings for sweets. It is an ideal performance enhancement for all athletes.

Blood Glucose Clearance Blunted by Marine Oils

We've covered two clear ways to increase performance: Incorporating PEOs into a training regimen, and the Protein Powder/Fruit Smoothie + PEOs. The goal is for the body to use glucose efficiently, which results in it being cleared from the system during exercise as it is used.

But the opposite occurs with marine oils. Therefore, a warning to athletes: the consumption of marine oils will reduce performance. The University of Texas study mentioned above confirms how marine oil/fish oil negatively impacts the blood glucose fuel needed for maximum performance.

Warning for athletes: Marine Oil starves muscles of essential fuel, making you less effective in the gym—the OPPOSITE of what is required for success.

In chapter 7, you saw how fish oil RAISED blood glucose levels—depriving the muscle of fuel. Marine oil significantly blunted use of glucose by over 20%. If you don't think this is significant, ask yourself how much horsepower your automobile

will achieve with a 10%–15% increased fuel consumption? Depending on efficiency, at least 10%–20% more horsepower is developed. Fruit provides a superb *mixture* of various *naturally* occurring carbohydrate sources. Athletes need every possible advantage for maximum performance and this "secret" allows a significant advantage, then add the PEOs for even more athlete advantage.

This finding was published in 2003 in the *British Medical Journal of Nutrition*. Fish oil significantly reduces the glucose metabolic clearance rate, **a terrible effect for an athlete**. This study showed the consumption of fish oil reduced the rate that glucose disappeared by 26%. An athlete needs glucose. But they need it properly utilized, which fish oil blunts.

The study also showed a 40% decrease in the insulin response to an oral glucose challenge following a three-week supplementation with fish oil. Further, it showed that, in those membranes which had incorporated the marine oils, the composition remained altered at least 18 weeks after the fish oil was discontinued. It also showed that marine oils, over a 3-week period, reduced production of glucose by the liver by 21% and reduced clearance of glucose by 26%.7 (For more information, *see* Scientific Support for chapter 12.)

⁷ Delarue, J., Labarthe, F., and Cohen, R., "Fish-Oil Supplementation Reduces Stimulation of Plasma Glucose Fluxes during Exercise in Untrained Males," *British Medical Journal of Nutrition*, Vol. 90, No. 4, **2003**, pp. 777–786.

▶ PEO Solution analysis: During training, glucose is the muscle's #1 fuel. This article explains how marine oil / fish oil supplements both decrease fuel production AND STOP fuel delivery of glucose to your muscles during exercise. This effect from fish oil will hurt any athlete's training — effectively "short-circuiting" their training. The decrease in available glucose energy could even be worse in an elite athlete such as a bodybuilder or professional athlete.

If you are easily exhausted during training and you are taking fish oil, this is the reason why. There is a simple solution—STOP taking fish oil and replace it with fuel rich PEOs.

Two warnings to Sports Medicine Physicians and Athletes

Warning #1: When exercising, muscles utilize glucose. Muscle's GLUT4 receptor requires plenty of glucose as muscle's #1 fuel during initial training. GLUT4 is a protein responsible for transporting glucose into cells, and is regulated by insulin. Fish oil raises blood sugar levels and makes insulin requirements increase, too, but it does not quite keep up. The blood sugar level stays too high (in the bloodstream) but it is *not usable as fuel* for the tissue. Conclusion: fish oil STARVES an athlete's muscles of its fuel needed for maximum performance.

Warning #2: Human Growth Hormone is minimized by carbohydrate consumption. Athletes can and should consume *some* carbs—ideally from whole fruit as discussed in chapter 5—

PEO Solution

but don't overdo it with grains, or efforts in the gym will be counteracted. The Protein Powder / Fruit Smoothie combination is ideal. Add PEOs, and it is dynamite!



For Athletes: Anyone wanting more muscle or muscle tone needs to know that **sugar (carbohydrate) stops the body from producing growth hormone.** (*Basic Medical Biochemistry – A Clinical Approach*, p. 702.)

Dr. Rowen



I'm in full agreement with expected increased performance if you take nutritional steps to improve oxygen transport across your cell membranes. That includes making sure that they have sufficient PEOs to permit O₂ transit.

However, I can't help but put a plug in here for my favorite therapy on the planet—oxidation. Oxidation, especially via using ozone therapy or ultraviolet blood irradiation therapy, has been shown to increase blood rheological (flow) properties. Red blood cells so exposed become more flexible (better to squeeze through capillaries smaller than the cell diameter). Even better, they deliver more oxygen to your tissues.

And I'd like to emphasize the work of Doug Graham, DC, nutrition consultant to sport stars. His mostly raw food diet has improved the physical performance of professional stars. I've termed it the "Living Foods Diet." You know that's how I eat. And, I take ozone therapy regularly. As you know, I've done some grueling treks, sometimes getting my heart rate up to 180, and sustaining it at 140. I've not experienced a "lactic acid burn" since my 20s when I was a regular carnivore and never heard of oxidation.

If you want optimum performance, combine PEOs with Living Foods and oxidation. (You can do ozone therapy in the privacy of your own home by rectal insufflation). The latter will increase the oxygen tension in your tissues, while PEOs will permit faster and increased transport, and the nutrients in your Living Foods will permit combustion of your newly increased oxygen delivery.



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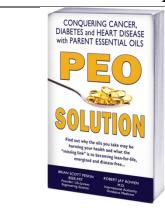
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