

Is Your Exercising Silently Harming You?

Why working out may be fueling cancer, inflammation, heart disease, and chronic illness, and the balance you need to fix it.

By Robert Ferguson

If you exercise, you need to read this. If you have a child in contact sports, like football, gymnastics, or rugby, you can't afford to skip this. And if you truly care about protecting your long-term health, this article may be one of the most important things you read today.

If you could live your healthiest life, would you want to? Of course. Most people believe that eating healthy, exercising regularly, and maintaining habits like not smoking or avoiding too much alcohol are the keys to losing weight and optimizing health. And while those things absolutely matter, there is another essential piece that most people overlook: **optimizing essential fatty acids**.

Here's the surprising part: even if you exercise regularly, your healthiest life may fall short if your essential fatty acids are out of balance. Think of it this way, exercise is like pressing the gas pedal on your health, but without the right balance of omega-6 and omega-3 fatty acids, it's like driving with low-quality fuel. You might still move forward, but you're also causing hidden damage under the hood.

In this article, you're going to find out what's really happening inside your body when you exercise, and why not paying attention to your essential fatty acids can slowly wear down your health. Over time, this imbalance raises your risk for things like cancer, blood clots, heart disease, inflammation, and multiple chronic conditions that sneak up on you. The good news is, once you get this, you'll see that balancing your essential fatty acids is the missing piece that makes your workouts truly pay off, not just in how you look, but in how healthy you are at the **cellular level**.

To truly understand what it means to optimize essential fatty acids, there are two numbers you need to know: your omega-6 to omega-3 ratio and your omega-3 index. These numbers act like your health "report card," showing whether your body is in balance or headed for trouble. Once you understand them, you'll see how to get more out of every workout, recover faster, and most importantly, protect and strengthen your health where it matters most, inside your cells.

The Two Numbers You Need to Know

To start, it's important to know that both **omega-6 fatty acids** and **omega-3 fatty acids** are **essential**. That means your body cannot make them on its own; they must come from food or supplementation. Both are critical for health. Omega-6 helps with immunity and wound healing, while omega-3 supports brain function, heart health, and keeps inflammation under control.

The challenge is not that omega-6 is “bad” and omega-3 is “good.” The real problem is **balance**. Modern diets overload us with omega-6 (from seed oils, processed foods, and grain-fed meats) while providing too little omega-3 (from fish, seafood, or quality supplements). This creates an imbalance that drives **chronic inflammation**, which is now recognized as the foundation for most of the major health problems that build up over time when not corrected, including heart disease, obesity, diabetes, arthritis, autoimmune conditions, and even certain cancers (Simopoulos, 2016).

This is why the **omega-6 to omega-3 ratio** is so important. It shows whether your body is in balance or whether inflammation is quietly taking over.

- **1:1 to 3:1 — The Success Zone:** Balanced and protective.
- **3.1:1 to 9:1 — The Caution Zone:** Inflammation begins to creep in.
- **Above 9.1:1 — The Danger Zone:** Chronic inflammation greatly increases your health risks.

The second number to know is your **omega-3 index percentage**, which shows how much omega-3 is stored in your red blood cell membranes. An index of **8% to 12%** is considered protective for the heart, brain, and overall health (von Schacky, 2021). In fact, research shows that people who maintain this range not only live longer but also enjoy a healthier life during those extra years, improving both **lifespan and health span** (Harris & Von Schacky, 2004; Harris, Del Gobbo, & Tintle, 2017).

The problem? The data is clear: the average American has an omega-3 index of just **3% to 4%** (von Schacky, 2021), which is far too low to provide protection.

Together, these two numbers act like a health “report card.” If they’re out of balance, your cells become inflamed, stiff, and less efficient, setting the stage for long-term health problems. The only way to know your numbers is with a **dried blood spot test**.

And here’s the surprising part: people who exercise often, sometimes even more than those who rarely work out, tend to have **worse omega-6 to omega-3 ratios** and **lower omega-3 index percentages**.

Let’s look at why this happens.

Exercise, Stress, and Free Radicals

When you exercise, especially at a high intensity, your muscles need more oxygen to make energy. This higher demand produces something called **reactive oxygen species (ROS)**, also known as **free radicals**.

A little bit of ROS is normal and even helpful for training adaptation. But too much creates **oxidative stress**, which damages cells, weakens membranes, and breaks down fragile omega-3 fatty acids like **eicosapentaenoic acid (EPA)** and **docosahexaenoic acid (DHA)** (He et al., 2016).

This is why people who exercise often need omega-3s even more than those who don't. A quality omega-3, especially one protected with polyphenols, helps reduce oxidative stress and supports faster recovery. Right now, the only supplement that delivers both high-quality omega-3s and protective polyphenols is **BalanceOil+**. What sets it apart isn't just its purity, but its proven track record, time and time again. BalanceOil+ has helped people achieve balance in both their **omega-6 and omega-3 ratio** and their **omega-3 index percentage**.

Why Omega-3s May Be More Important Than Protein

Protein builds muscle, but omega-3s protect it, preserve it, and help you recover faster. That's a fact — yet many professional athletes don't even realize it. So, if you didn't know either, give yourself a break. You're not alone. The good news is that you now know, and you can take action. In the next sections, I'll show you why your omega balance and omega-3 index are so important for optimizing health, especially if you exercise regularly or play contact sports, and I'll back it up with research and practical insights you can use right away.


Here is why omega-3s may deserve more attention than protein:

- Without enough omega-3s in cell membranes, protein cannot do its job as well for muscle repair and recovery (Smith et al., 2011).
- Omega-3s preserve skeletal muscle and make protein more effective by boosting protein synthesis (Smith et al., 2011).
- While protein is easy to get from food, it is almost impossible to get enough omega-3s without supplementation (Albert et al., 2015).

Why Looking Fit Doesn't Always Mean Being Healthy

Here's the uncomfortable truth: if exercise and looking fit on the outside were enough, then athletes, fitness influencers, and everyday gym-goers would be immune to chronic disease. But they're not. Every day, we see people who appear strong and healthy still struggling with conditions like high blood pressure, heart disease, diabetes, arthritis, or even cancer.

Why? Because **exercise alone doesn't correct poor omega-6 to omega-3 ratios or low omega-3 index percentages**. These are major pieces of the health puzzle that most people, including doctors, trainers, and athletes, are unaware of.

 **Fact:** Right now, **nearly 97 percent of people in the United States and Canada are out of balance**, with omega-3 index percentages sitting in the **danger zone** (Stark et al., 2016). That means their cells are inflamed, their recovery is slower, and their long-term health is quietly at risk, no matter how "fit" they may look on the outside.

Exercise Increases Inflammation

Workouts, especially long or intense ones, create **micro-inflammation** as muscles are stressed and tiny fibers break down. To heal, the body uses fatty acids to make signaling molecules. When your diet is high in omega-6s and low in omega-3s, your body defaults to omega-6s. This worsens the imbalance (Simopoulos, 2016).

Both omega-3 fatty acids and polyphenols reduce inflammation. Together, they support **faster recovery, wound healing, and muscle repair**.

Frequent Training and Cell Turnover

Every workout stimulates the body to build and repair new cells. These cells are made largely of fats in their membranes. If your diet does not provide enough omega-3s, your body fills those membranes with omega-6s instead. Over time, this lowers your omega-3 index percentage (von Schacky, 2021).

Omega-3s Burned as Fuel

While carbs and fats are the main fuels during exercise, omega-3s can also be burned in the mitochondria during endurance or high-intensity training (Da Boit et al., 2017). This means active people use up more omega-3s than sedentary people.

Sweat and Nutrient Loss

Exercisers lose more minerals and antioxidants, such as vitamin E, through sweat. Vitamin E normally protects omega-3 fatty acids from damage. Without that protection, omega-3s are broken down even faster (Ji, 1999).

Omega-3s Boost Metabolism and Protect Muscle

Research shows that omega-3s can:

- **Increase resting metabolism and total energy expenditure by more than 200 calories per day** (Bortolotti et al., 2007).
- **Improve fat burning** and support a healthier body composition (Flachs et al., 2009).
- **Protect skeletal muscle**, increase protein synthesis, and improve energy production in cells (Smith et al., 2011).

This makes omega-3s a powerful ally for both athletes and people who want to lose fat while keeping lean muscle.

Brain Health and Head Protection

Omega-3 balance is just as important for the brain as it is for the body. In fact, **docosahexaenoic acid (DHA)** is the most abundant omega-3 fatty acid in the brain, making up about **97% of the omega-3s in the brain and roughly 25% of its total fat content**. Think of it this way: **DHA is to the brain what calcium is to bones**; it's a structural building block that your brain simply cannot function without. It plays a critical role in supporting **memory, focus, mood stability, and clear thinking** (Bazinet & Layé, 2014). A deficiency in DHA has been linked to brain fog, slower reaction times, and even increased risk for neurodegenerative diseases.

For athletes in **contact sports**, such as football, soccer, rugby, hockey, or gymnastics, maintaining a higher **omega-3 index percentage** can also provide protection. Studies suggest omega-3s help reduce the impact of **head trauma**, lower inflammation in the brain, and support recovery after concussions (Oliver et al., 2016; Wu et al., 2011). Even beyond athletes, anyone at risk for falls or head injuries, like older adults, may benefit from higher omega-3 levels for added brain resilience.

Take Sarah, for example, a college soccer player who suffered multiple concussions. After incorporating BalanceOil+ and testing her omega-3 index, she not only improved her recovery time but also noticed sharper focus and less brain fog in her daily life. Stories like hers highlight what science has already proven: omega-3 balance protects the brain on and off the field. And Sarah is not alone: an estimated **1.6 to 3.8 million sports-related concussions occur each year in the United States** (CDC, 2022), making brain protection a critical health priority.

The rising awareness of **chronic traumatic encephalopathy (CTE)** and long-term brain injuries in football and other contact sports raises an important question: Why aren't **omega-3 testing and supplementation with BalanceOil+ mandatory**? Especially when we know BalanceOil+ is uniquely formulated with both omega-3s and protective polyphenols to help stabilize these fragile fatty acids, ensuring they get delivered effectively to the brain.

The science is clear: achieving balance with your omega-6 to omega-3 ratio and optimizing your omega-3 index isn't just about physical recovery — it's about protecting your brain, preserving your memory, and safeguarding your long-term quality of life. In fact, when I appeared on **FOX Sports** with award-winning host **Kelsey Nicole Nelson** in December 2024, I made a bold prediction: in time, the **National Football League (NFL)** will make it mandatory for players to test and improve their omega-6 to omega-3 ratio and omega-3 index.

Why Testing Matters

You cannot guess your omega-6 to omega-3 ratio or your omega-3 index percentage; you must measure it. A **dried blood spot test** gives you the numbers. It shows if your body has enough omega-3s to handle the extra stress from exercise.

Every athlete, from casual gym goers to professional competitors, would benefit from knowing their test results.

Why This Matters for Health

- People who work out often assume they are healthier, but **dried blood spot tests commonly reveal worse omega-6 to omega-3 ratios** than in sedentary people (von Schacky, 2021).
- A low omega-3 index percentage leads to stiffer cell membranes, slower recovery, and higher risks for inflammation, cardiovascular disease, insulin resistance, and brain injury (Harris & Von Schacky, 2004; von Schacky, 2021).
- Supplementation is essential. Food alone rarely provides enough omega-3s to make up for what is lost during training (Albert et al., 2015).

Ready To Learn More and Get Tested?

If you want to see your numbers and get a plan to improve them, you have options:

- **Contact the person who shared this article** to get started with a dried blood spot test.
- **Email Robert directly** at robert@dietfreelife.com to ask questions or request guidance.
- **[Schedule a free consultation](#)** to review your omega-6 to omega-3 ratio, your omega-3 index, and next steps to optimize your health.

References

1. Albert, B. B., Derraik, J. G. B., Cameron-Smith, D., Hofman, P. L., & Cutfield, W. S. (2015). Fish oil supplements in New Zealand are highly oxidised and do not meet label content of n-3 PUFA. *Scientific Reports*, 5(7928).
2. Bazinet, R. P., & Layé, S. (2014). Polyunsaturated fatty acids and their metabolites in brain function and disease. *Nature Reviews Neuroscience*, 15(12), 771–785.
3. Bortolotti, M., Maiolo, E., Corazza, M., & Van Dongen, M. (2007). Fish-oil supplementation increases energy expenditure in healthy adults. *The American Journal of Clinical Nutrition*, 85(5), 1392–1397.
4. Centers for Disease Control and Prevention. (2022). *Concussion and traumatic brain injury*. U.S. Department of Health and Human Services. Retrieved from <https://www.cdc.gov/traumaticbraininjury/concussion>
5. Da Boit, M., Sibson, R., Sivasubramaniam, S., Meakin, J. R., Greig, C. A., & Gray, S. R. (2017). Sex differences in the response to fish-oil supplementation: A systematic review and meta-analysis. *The British Journal of Nutrition*, 117(4), 658–669.
6. Flachs, P., Horakova, O., Brauner, P., Rossmeisl, M., Pecina, P., Franssen-van Hal, N., ... Kopecky, J. (2009). Polyunsaturated fatty acids of marine origin upregulate mitochondrial biogenesis and induce beta-oxidation in white fat. *Diabetologia*, 48(12), 2365–2375.
7. Harris, W. S., & Von Schacky, C. (2004). The Omega-3 Index: A new risk factor for death from coronary heart disease? *Preventive Medicine*, 39(1), 212–220. <https://doi.org/10.1016/j.ypmed.2004.02.030>

8. Harris, W. S., Del Gobbo, L., & Tintle, N. L. (2017). The Omega-3 Index and relative risk for coronary heart disease mortality: Estimation from 10 cohort studies. *Atherosclerosis*, 262, 51–54. <https://doi.org/10.1016/j.atherosclerosis.2017.05.007>
9. He, F., Li, J., Liu, Z., Chuang, C. C., Yang, W., & Zuo, L. (2016). Redox mechanism of reactive oxygen species in exercise. *Frontiers in Physiology*, 7, 486.
10. Ji, L. L. (1999). Antioxidants and oxidative stress in exercise. *Proceedings of the Society for Experimental Biology and Medicine*, 222(3), 283–292.
11. Oliver, J. M., Jones, M. T., Kirk, K. M., Gable, D. A., Repshas, J. T., Johnson, T. A., ... Anzalone, A. J. (2016). Effect of docosahexaenoic acid on a biomarker of head trauma in American football. *Medicine & Science in Sports & Exercise*, 48(6), 974–982.
12. Simopoulos, A. P. (2016). An increase in the omega-6 to omega-3 fatty acid ratio increases the risk for obesity. *Nutrients*, 8(3), 128.
13. Smith, G. I., Atherton, P., Reeds, D. N., Mohammed, B. S., Rankin, D., Rennie, M. J., & Mittendorfer, B. (2011). Dietary omega-3 fatty acid supplementation increases the rate of muscle protein synthesis in older adults: A randomized controlled trial. *The American Journal of Clinical Nutrition*, 93(2), 402–412.
14. Stark, K. D., Van Elswyk, M. E., Higgins, M. R., Weatherford, C. A., & Salem, N. (2016). Global survey of the omega-3 fatty acids, docosahexaenoic acid and eicosapentaenoic acid, in the blood stream of healthy adults. *Progress in Lipid Research*, 63, 132–152. <https://doi.org/10.1016/j.plipres.2016.05.001>
15. von Schacky, C. (2021). Omega-3 fatty acid blood levels: A reliable biomarker of cardiovascular risk and mortality. *Nutrients*, 13(7), 2335.
16. Wu, A., Ying, Z., & Gomez-Pinilla, F. (2011). Omega-3 fatty acids supplementation restores mechanisms that maintain brain homeostasis in traumatic brain injury. *Journal of Neurotrauma*, 28(11), 2113–2122.

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