

# Omega-3 Fats & Athletes

## What are Omega-3 fats?

Omega-3s are type of polyunsaturated and essential fat. Essential fats are those which our bodies can't make on their own and therefore must be consumed in the diet.

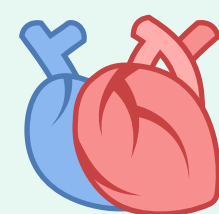
## How do Omega-3 fats affect health?

Omega-3 fats are important parts of our cell membranes, essential for growth and maintenance of the brain and eyes, regulate blood pressure, decrease inflammation, lower risk for chronic diseases, and more.

## Why are Omega-3 fats important for athletes?



Reduce muscle soreness & joint pain  
Support muscle protein synthesis



Support maximal blood flow  
Lower risk of cardiovascular disease



Improve concussion recovery  
Support mental health and mood  
Potential neuroprotectant



Fight exercise induced inflammation  
Support healthy immune system



## The different types of Omega-3 fats

Omega-3 fats are present in 3 forms in foods: EPA, DHA, and ALA. Understanding the differences between the forms can help make informed food choices based on personal nutrition needs.

### EPA

(Eicosapentaenoic acid)

### DHA

(Docosahexaenoic acid)

### ALA

(Alpha-linolenic acid)

Both DHA and EPA come from seafood sources. They are well absorbed and utilized by the body.



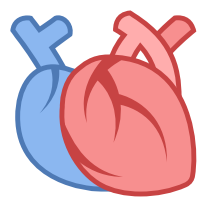
ALA is found in plant food sources. Converted to DHA & EPA for health benefits, but conversion rate is very low.



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## How much omega-3 is optimal for health and performance?

Optimal omega-3 intake for athletes is not yet established. While that research continues, a few current recommendations provide guidance:



General recommendation for good heart and overall health

Consume at least 2 servings of fatty fish per week, or about 500 mg DHA and EPA Omega-3 fats per day



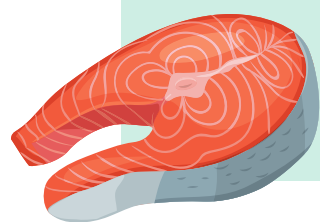
Proposed recommendation for athletes

Consume 1-2g combined EPA and DHA per day in a ratio of 2:1 EPA:DHA to reduce exercise induced inflammation



Higher doses of  $\geq 4$  g Omega-3 fats per day may be recommended in some situations such as with concussion recovery

## How can you get enough Omega-3 fats?



### Food

Food should always be the primary way nutrient needs are met when possible

Focus on fatty fish, like salmon, and seafood for their rich source of Omega-3's  
For example, a 3 oz. portion of cooked salmon provides about 1.8 g Omega-3 fats

Plant based sources like walnuts, chia, and canola oil can support Omega-3 intake, but are not as potent sources as seafood

### Supplements



If Omega-3 intake is a priority and intake recommendations cannot be met through foods, supplements can be considered

Choose a NSF Certified for Sport product to ensure the supplement is safe

Look for supplements made of fish or marine sources in triglyceride form of Omega-3 fats, as they are best absorbed

## The Omega-3 Index to assess Omega-3 status

- The Omega-3 Index determines Omega-3 status through a simple blood test.
- The Index represents the percentage of fats in red blood cells that are Omega-3 (DHA + EPA).
- A higher Omega-3 Index score is associated with lower risk of cardiovascular disease (CVD), better recovery from training, and improved mood.
- Recent studies have reported the Omega-3 Index of American Division I American student athletes to be in the 4 - 5% range, with nearly no athletes over the 8% mark.

< 4%

Higher CVD risk

4 - 8%

Intermediate CVD risk

> 8%

Lower CVD risk