

## Omega 6/3 Fatty Acid Profile

Test report no.	: 010-7FFKKK-1000-TTLL	TTL Barcode	: ZS381302
Customer name	: SAMPLE	Method of analysis	: Gas Chromatography (FID) LHC/P/5.4/01
Date of receiving	: 2022-01-01	Date of testing	: 2-Jan-22

## Results

Polyunsaturated Omega-6 fatty acids			Polyunsaturated Omega-3 fatty acids		
	Total :			Total :	
Linoleic acid (LA)	C18:2,n6	22.7 %	Alpha-linolenic acid (ALA)	C18:3,n3	0.3 %
Gamma-linolenic acid (GLA)	C18:3,n6	0.2 %	Eicosapentaenoic acid (EPA)	C20:5,n3	0.1 %
Dihomo-gamma-linolenic acid (DGLA)	C20:3,n6	1.3 %	Docosapentaenoic acid (DPA)	C22:5,n3	0.9 %
Arachidonic acid (AA)	C20:4,n6	12.0 %	Docosahexaenoic acid (DHA)	C22:6,n3	2.7 %
<b>Saturated fatty acids</b>			<b>Monounsaturated fatty acids</b>		
	Total :			Total :	
Myristic Acid (MA)*	C14:0	1.0 %	Palmitoleic Acid (PLA)*	C16:1, n7	0.7 %
Palmitic acid (PA)	C16:0	26.9 %			
Stearic acid (SA)	C18:0	15.4 %	Oleic acid (OA)	C18:1,cis-9	16.0 %

### Note:

Above results relate only to the sample as received.

The results not to be used for diagnostic purposes and should be clinically correlated.

These 13 fatty acids represent 98% of the total fatty acids in human body. Fatty acid levels are given in % of these 13 fatty acids.

Fatty acids marked with \* are not accredited by NABL.



### Analyzed by

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### Approved signatory

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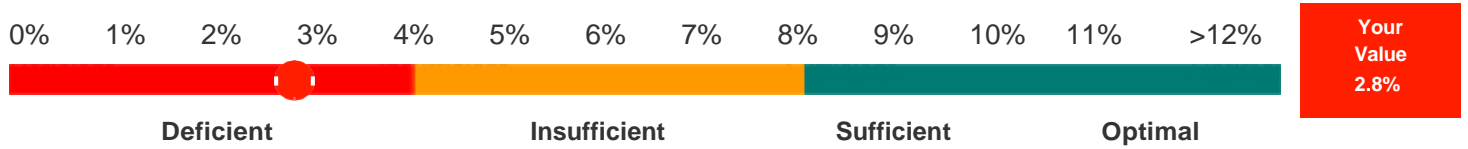
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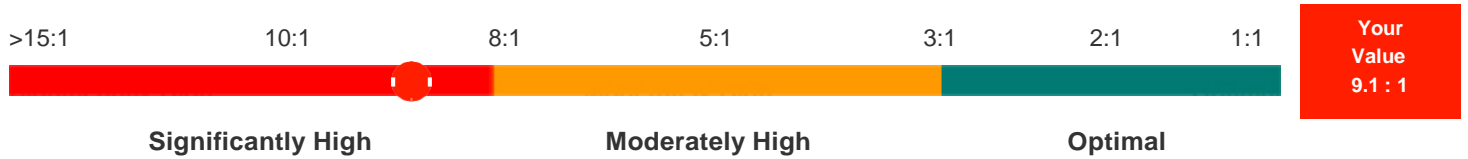
## Omega-3 Index (EPA+DHA)



An Omega-3 Index greater than 8% is desirable and should be the target for everyone. An Omega-3 Index level greater than 8% means that you have low cardiovascular risk. Studies show that having a higher Omega-3 Index is beneficial for cardiovascular, brain, joint and eye health. Re-test your Omega-3 index every six months to make sure you remain in the target range.

**Your Omega-3 Index is below the target. This can be improved by increasing your Omega-3 intake through an increase in fish consumption or an increased intake of Omega-3 supplements.**

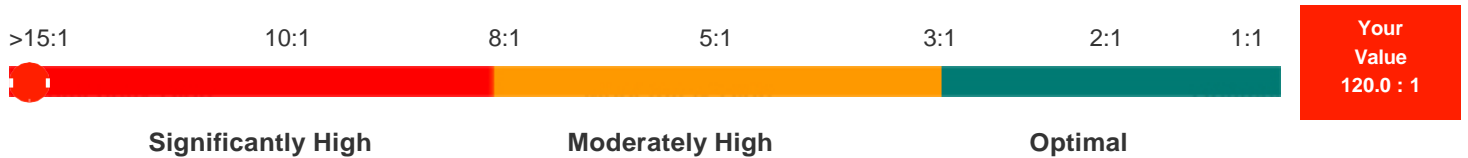
## Omega-6 to Omega-3 Ratio



The desirable target of Omega-6 to Omega-3 ratio is less than 3. This is also a good indicator of predicting cardiovascular health. Higher the ratio, greater is the risk.

**Your Omega-6 to Omega-3 ratio is above the threshold; you should increase your intake of foods rich in Omega-3 fats such as oily fish and/or Omega-3 supplements and reduce intake of vegetable oil and margarine.**

## AA/EPA Ratio



An AA/EPA ratio less than 3 is desirable and should be the target for everyone. The AA/EPA ratio is an indicator of chronic inflammation, which may play a role in causing several conditions such as hypertension, high cholesterol and diabetes. The AA/EPA ratio may also be elevated during acute inflammation such as infection.

**Your AA/EPA ratio is above the threshold. You can increase intake of Omega-3 rich foods or Omega-3 supplements and reduce your intake of vegetable oil and margarine.**

## Test Results

The test results show that your fatty acid profile is **UNBALANCED**.

One of the most effective ways to get a healthy and a balanced profile is by taking Omega-3 supplements. The recommended intake of Omega-3 (EPA and DHA) as per your body weight is:

- 35 Kg - 50 Kg : **3 Omega Boost Active Softgels**
- 51 Kg - 65 Kg : **4 Omega Boost Active Softgels**
- 66 Kg - 75 Kg : **5 Omega Boost Active Softgels**
- > 75Kg : **6 Omega Boost Active Softgels**

It is recommended that you take the recommended dosage daily for a period of **4** months to increase your levels of Omega3. This will help reduce the Omega-6 to Omega-3 ratio and decrease the dietary inflammation (AA/EPA). You should also consider changing your diet to one with less Omega-6 by reducing your daily intake of plant oils and grains. Reducing your intake of sugar and carbohydrates will also have an overall beneficial effect.

A new Omega 6/3 Fatty Acid Profile may be repeated after this period which will indicate improvements that may lead to reduced recommended dosage.

## A Brief Explanation on Fatty Acid Parameters

### What is the Omega-3 Index and what does it mean to me?

The Omega-3 Index is the method for quantifying Omega-3 blood levels. It is a measurement of Omega-3 fatty acids DHA and EPA as a fraction of total fatty acids in red blood cells. An Omega-3 Index level of >8% is recommended and correlates with population with low incidence of cardiovascular disease. Populations with an Omega Index of <4% have a high incidence of cardiovascular disease. The Omega-3 Index is a better predictor of heart attacks than a cholesterol number. Omega-3 levels can be modulated with simple diet changes and intake of Omega-3 supplements such as fish oil.

### What is Omega-6 to Omega-3 Ratio?

Omega 6's are important fatty acids mainly responsible for the inflammatory response. Inflammation is important in fighting infection and disease. However, too much inflammation or persistent inflammation at low levels is not desirable. Omega 6 is found in vegetable oils, cheaper margarines (and often used in food manufacturing pastries, pre-cooked oven baked potato chips), grains, seeds and nuts and reducing intake from these foods can help reach an optimal ratio. It has been shown that the Western diet has an Omega 6/ 3 ratio of 16 and above. Lower Omega 6/ 3 ratios have been associated with lower incidence of cancer, cardiovascular, autoimmune and inflammatory diseases.

### What is the AA/EPA Ratio?

Arachidonic acid (AA) is an omega 6 polyunsaturated fatty acid (PUFA) often found in vegetable oils and red meat. It is pro-inflammatory and plays an important role in warding off infections. However, too much AA can be harmful. Eicosapentaenoic acid (EPA) is one of the Omega-3 PUFA's and has anti-inflammatory properties and counterbalances the pro-inflammatory effects of AA. AA/EPA ratio has been used as an indicator of chronic inflammation. An AA/EPA ratio between 1.5 and 3 is desirable and should be the target for everyone.

## Types of Fats

**Saturated fats** are non-essential fats that come from animal products such as beef, lamb, pork, poultry with skin, butter, cream, cheese and other dairy products. Foods from plants that contain saturated fats include coconut, coconut oil, palm oil and palm kernel oil and cocoa butter. The American Heart Association recommends minimizing saturated fat consumption because of links to high cholesterol and an increased risk of cardiovascular disease.

**Monounsaturated fats (MUFA)** are non-essential fats that are generally considered to be of a good fat type. They are considered to be healthier alternatives to saturated and refined trans-fats found in most processed foods. Olive oil, avocados and almonds are good sources of MUFAs. The American Heart Association recommends replacing the majority of your saturated fat intake with monounsaturated fat or polyunsaturated fats.

**Omega-6** is a family of essential polyunsaturated fatty acids (PUFA) that must come from the diet. Modern diets contain a high proportion of omega-6 fatty acids, especially Linoleic acid, an essential fatty acid from common vegetable oils (e.g. corn, soya, sunflower, and cottonseed), processed foods made with them, as well as from seeds, nuts (eg. Cashews and Pecans) and grains (eg. cereals, wheat flour, pastas etc.). Arachidonic acid (AA) accumulates in meats from grain-fed animals and poultry. These fatty acids are pro-inflammatory and their consumption should be under control.

**Omega-3** is a family of essential PUFAs that must come from the diet. Alpha-Linolenic acid (ALA) originates from vegetable fats, while both Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) are rich in fatty shellfish and fish like Salmon, Anchovies, Herring, Sardines, and Trout. Plant derived ALA is not efficiently converted by our body into the required longer chain fatty acids EPA and DHA, which must come from marine sources or fish-oil based supplements. Omega-3s are important for heart, brain and joint health. Low levels of Omega-3 have been associated with:

- Increased risk of fatal heart attacks
- Metabolic syndrome / diabetes



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