OMEGA-3 INDEX REPORT

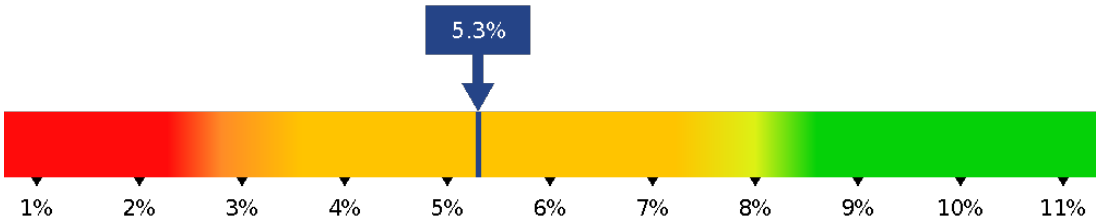
fattyacidlabs

Name: Fatty Acid
DOB: 2000-01-01
Account: Customer

Sample ID: TEST0051
Result date: 2024-10-01

UK | Europe | Australia
info@fattyacidlabs.com
results.fattyacidlabs.com

Your Omega-3 Index Levels



Reference range: 2.8-15.4%. Optimal range: 8-12%. Reference ranges encompass about 99% of fatty acids levels measured in adult populations.

Your Omega-3 Index Report

Congratulations on taking the initiative to assess your Omega-3 Index! This report offers important insights into your omega-3 fatty acid levels, which are essential for your overall health. The Omega-3 Index measures the percentage of EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) in your red blood cells. These two omega-3 fatty acids, primarily found in fatty fish and marine supplements, play crucial roles in cardiovascular health, brain function, and inflammation regulation.

An optimal Omega-3 Index is generally considered to be 8% or higher. Levels within this range are associated with a lower risk of heart disease, better brain health, and reduced inflammation. Your current Omega-3 Index is 5.32%, which is below the optimal range. To improve your Omega-3 Index to 8% or higher, we recommend that you consume an additional 976 mg of EPA and DHA per day on top of your current diet and supplementation. This recommendation is based on research published by Walker et al. in 2019. This information can help you understand how well your diet and lifestyle are supporting your omega-3 needs.

To improve and maintain a desirable Omega-3 Index, it is essential to include omega-3-rich foods in your diet. Fatty fish such as salmon, mackerel, sardines, and trout are excellent sources of EPA and DHA. Aim to consume fish at least twice a week. For those who prefer plant-based options, flaxseeds, chia seeds, and walnuts contain alpha-linolenic acid (ALA), a precursor to EPA and DHA. However, the conversion rate of ALA to DHA in the body is quite low, so it may not significantly impact your Omega-3 Index.

Omega-3 supplements, such as fish oil or algae oil, can be an effective way to increase your EPA and DHA intake. When choosing a supplement, look for one that provides at least 500 mg of combined EPA and DHA per serving. Marine-derived supplements are particularly beneficial, and you do not need to worry about mercury or other contaminants in these products.

Monitoring your Omega-3 Index over time is a proactive way to track your progress and make informed decisions about your diet and supplement regimen. If you increase your omega-3 intake, you can expect your Omega-3 Index to improve gradually over several months. We recommend rechecking your levels every 3-6 months to ensure you are on track and making any necessary adjustments.

Your healthcare provider can provide personalised recommendations based on your specific health needs and ensure that any changes are safe and effective for you. Maintaining an optimal Omega-3 Index is a vital aspect of supporting your long-term health, and your healthcare provider can guide you in achieving this goal.

Understanding and maintaining your Omega-3 Index is a valuable step towards enhancing your health and well-being. By incorporating omega-3-rich foods, considering supplements, and making healthy lifestyle choices, you can support your cardiovascular health, brain function, and overall vitality. Taking control of your Omega-3 Index empowers you to make informed decisions that benefit your health now and in the future.

Consult with your healthcare provider before making any significant changes to your diet or supplement routine.

OMEGA RATIOS & TRANS FAT

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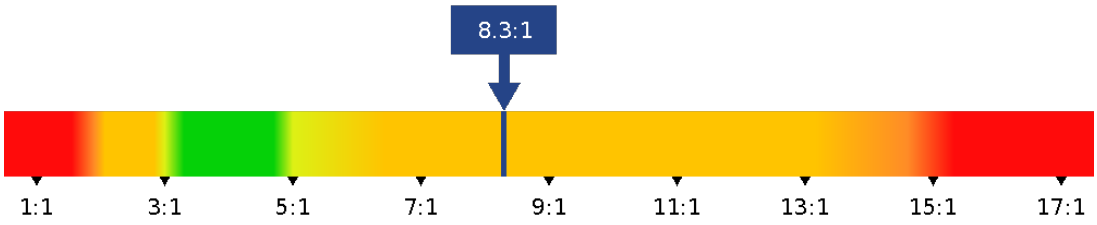
Your Omega-6:Omega-3 Ratio Levels

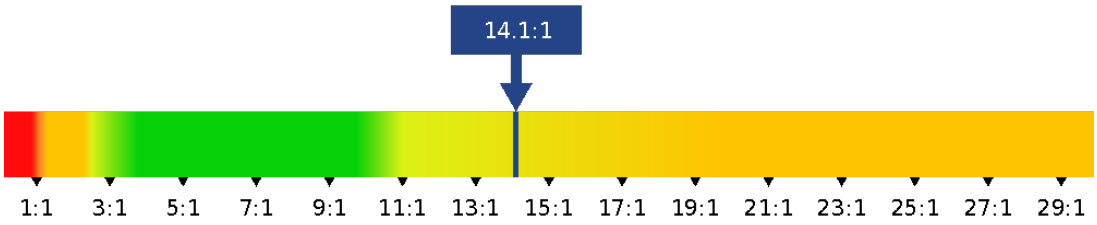


Omega-6:Omega-3 Ratio

The Omega-6:Omega-3 ratio assesses the balance between two essential fatty acids in your blood: Omega-6 and Omega-3. Omega-6 fatty acids, commonly found in vegetable oils, contrast with Omega-3 fatty acids, which are abundant in fish and certain plant sources. Maintaining a balanced Omega-6:Omega-3 ratio is vital for overall health. While Omega-6 fatty acids are necessary for various bodily functions, an excessive intake relative to Omega-3s can lead to inflammation and health issues. An optimal ratio, typically between 3:1 and 5:1, supports heart health, brain function, and immune system regulation. To achieve this balance, incorporating more Omega-3-rich foods like fish, nuts, and seeds into your diet is beneficial. Regularly monitoring and adjusting your diet based on this ratio can help ensure you're supporting your body's needs effectively.

Reference range: 1.9:1 - 14.6:1, Optimal range: 3:1 - 5:1, Reference Ranges encompass about 99% of fatty acids levels measured in adults population.

Your AA:EPA Ratio Levels

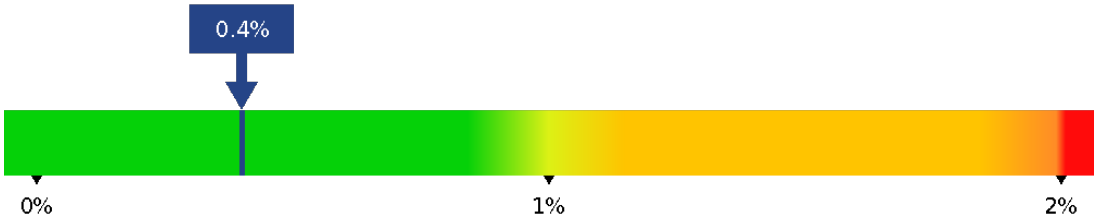


AA:EPA Ratio

The AA:EPA ratio measures the levels of arachidonic acid (AA) and eicosapentaenoic acid (EPA) in your blood. Arachidonic acid, an Omega-6 fatty acid, is found in animal products, whereas EPA, an Omega-3 fatty acid, is abundant in fatty fish. This ratio offers insights into the inflammation levels within your body. Higher AA:EPA ratios may indicate increased inflammation, whereas lower ratios suggest reduced inflammation and improved overall health. Balancing this ratio through dietary changes, such as increasing Omega-3 intake, can support heart health, joint function, and immune system performance. By monitoring and adjusting the AA:EPA ratio, you can take proactive steps towards maintaining a healthy inflammatory response and promoting long-term wellness.

Reference range: 1.1:1 - 69.1:1, Optimal range: 2.5:1 - 11:1, Reference Ranges encompass about 99% of fatty acids levels measured in adults population.

Your Trans Fat Index Levels



Trans Fat Index

The Trans Fat Index measures the levels of trans fatty acids in your blood, which primarily originate from processed foods con- taining partially hydrogenated oils. High levels of trans fats are associated with an increased risk of heart disease and other health problems. Reducing the intake of trans fats by avoiding processed foods can significantly improve your overall health. Understand - ing and managing your Trans Fat Index is crucial for reducing your risk of chronic diseases and enhancing your overall well-being. Adopting a diet rich in whole, unprocessed foods and regularly checking your Trans Fat Index can help you make informed dietary choices and support a healthier lifestyle.

Reference range: 0.22 - 1.99, Optimal range: < 1, Reference Ranges encompass about 99% of fatty acids levels measured in adults population.

COMPLETE FATTY ACIDS REPORT

fattyacidlabs

Name: Fatty Acid
DOB: 2000-01-01
Account: Customer

Sample ID: TEST0051
Result date: 2024-10-01

UK | Europe | Australia
info@fattyacidlabs.com
results.fattyacidlabs.com

Type		Fatty Acids	Whole Blood Level	Reference Range
Polyunsaturated Fats (PUFAs)	Omega-3	**Omega-3 Fatty Acids**	**4.88%**	**2.57 - 15.14%**
		Omega3 Index	5.32%	2.80 - 15.40%
		Alpha-Linolenic (C18:3n3)	0.36%	0.10 - 1.90%
		Eicosapentaenoic (EPA, C20:5n3)	0.65%	0.14 - 6.92%
		Docosapentaenoic-n3 (C22:5n3)	1.01%	0.53 - 2.81%
		Docosahexaenoic acid (DHA, C22:6n3)	2.87%	1.00 - 6.50%
	Omega-6	**Omega-6 Fatty Acids**	**40.59%**	**24.90 - 44.20%**
		Linoleic (C18:2n6)	28.06%	14.00 - 31.30%
		Gamma-Linolenic (C18:3n6)	0.19%	0.05 - 0.72%
		Eicosadienoic (C20:2n6)	0.27%	0.10 - 0.43%
		Dihomo-γ-linolenic (C20:3n6)	1.55%	0.50 - 2.50%
		Arachidonic (AA, C20:4n6)	9.11%	5.00 - 14.80%
		Docosatetraenoic (C22:4n6)	1.19%	0.30 - 2.50%
		Docosapentaenoic-n6 (C22:5n6)	0.22%	0.08 - 0.83%
cis-Monounsaturated Fatty Acids	-	**cis-Monounsaturated Fatty Acids**	**20.26%**	**15.60 - 31.80%**
	Omega-7	Palmitoleic (C16:1n7)	1.0%	0.13 - 2.90%
	Omega-9	Oleic (C18:1n9)	18.61%	14.20 - 29.50%
		Eicosenoic (C20:1n9)	0.2%	0.10 - 0.77%
		Nervonic (C24:1n9)	0.44%	0.13 - 1.96%
Saturated Fatty Acids		**Saturated Fatty Acids**	**33.77%**	**29.90 - 42.10%**
		Myristic (C14:0)	0.77%	0.10 - 2.45%
		Palmitic (C16:0)	20.89%	17.50 - 27.10%
		Stearic (C18:0)	11.43%	8.40 - 15.00%
		Arachidic (C20:0)	0.13%	0.10 - 0.53%
		Behenic (C22:0)	0.24%	0.20 - 1.59%
		Lignoceric (C24:0)	0.31%	0.20 - 1.92%
Trans Fatty Acids		**Trans Fatty Acids**	**0.5%**	**0.30 - 2.02%**
		Trans Palmitoleic (C16:1n7t)	0.15%	0.10 - 2.45%
		Trans Oleic (C18:1n9t)	0.22%	0.00 - 0.51%
		Trans Linoleic (C18:2n6t)	0.13%	0.07 - 0.92%
		Trans Fat Index	0.35%	0.22 - 1.99%
Ratios		**Ratios**		
		AA:EPA	14.12:1	1.10 - 69.10:1
		Omega-6:Omega-3	8.32:1	1.90 - 14.60:1

Reference ranges based on approx. 99% adult population.

Omega-3 Fatty Acids
The Omega-3 Fatty Acids section provides insight into essential fatty acids crucial for overall health. It encompasses two main categories: plant-based omega-3 (alpha-linolenic acid, ALA) and marine omega-3s (eicosapentaenoic acid, EPA, docosahexaenoic acid, DHA, and DPA n-3). Besides the Omega-3 Index and Trans Fat Index, the additional fatty acid values provided here are primarily for your information. In addition, individual fatty acid values are from whole blood (which includes plasma, red and white blood cells), while the Omega-3 Index is a level of Omega-3 in red blood cells specifically.

Cis-monounsaturated Fatty Acids (Monos)
Cis-monounsaturated Fatty Acids analysis primarily centres on oleic acid, representing approximately 95% of monounsaturated fats. Present in various vegetable oils like olive, canola, and soybean, oleic acid is ubiquitous in diets and synthesized by the body. The relationship between blood oleic acid levels and health remains controversial, with inconclusive evidence to support firm target values. Additionally, palmitoleic acid, indicative of excess carbohydrate consumption, warrants attention, albeit its interpretation remains complex due to evolving research.

Saturated Fatty Acids
The evaluation of Saturated Fatty Acids underscores the significance of palmitic and stearic acid, comprising approximately 98% of saturated fats in the blood. While foods rich in saturated fats include solids like butter and lard, their consumption does not directly impact blood levels. Elevated palmitic acid levels have been tentatively linked to poorer overall health, necessitating further investigation.