



YOUR OMEGA-3 INDEX:

The human brain is nearly 60 percent fat with the majority being Omega-3 fatty acids. These are the building blocks of the brain and are crucial molecules that determine the brain's integrity and ability to perform. Omega-3s cannot be made by your body, so it is critical to obtain them by eating fish or taking fish oil. However, when it comes to Omega-3s, the most important factor is how much is being absorbed by your blood cells.

Consistently measuring your Omega-3 Index is the only way to maintain optimal levels. An Omega-3 Index over 8% is associated with improved memory, attention, learning, mood stability, faster recovery from concussion as well as lower anxiety, depression, and inflammation. Additionally, tracking your Omega-3 Index over time is one of the most important ways to help prevent alzheimer's disease, cognitive decline, and cardiovascular disease. Omega-3s are to your brain cells what calcium is to your bones; or what protein is to your muscles.

RESEARCH & ASSOCIATED CONDITIONS:

The graph below shows how your Omega-3 Index compares to current research studies.



PERSONALIZED RECOMMENDATIONS:
To achieve an Omega-3 Index above 8% within 3 months, you will need to do one of the following:


Eat a 3 oz. serving of oily fish (Salmon, Herring, Bluefin) at least 4 times per week to maintain in the "green zone"

OR


To maintain your Omega-3 Index in the "green zone", take 1,000 milligrams of combined EPA & DHA per day

Ask your doctor to recommend a quality Omega-3 supplement that has demonstrated a high level of cellular absorption. The most important factor is how much EPA and DHA is absorbed into your blood cells. How it gets there (fish or supplements) really doesn't matter, as long as its absorbed. ONLY choose high quality Omega-3 supplements with both EPA & DHA (from fish). Omega-3 supplements with ALA (from plants) will have little effect improving your cell health or your Omega-3 Index. See Appendix A of this report for information on how to choose quality Omega-3 supplements.



YOUR CELL INFLAMMATION BALANCE:

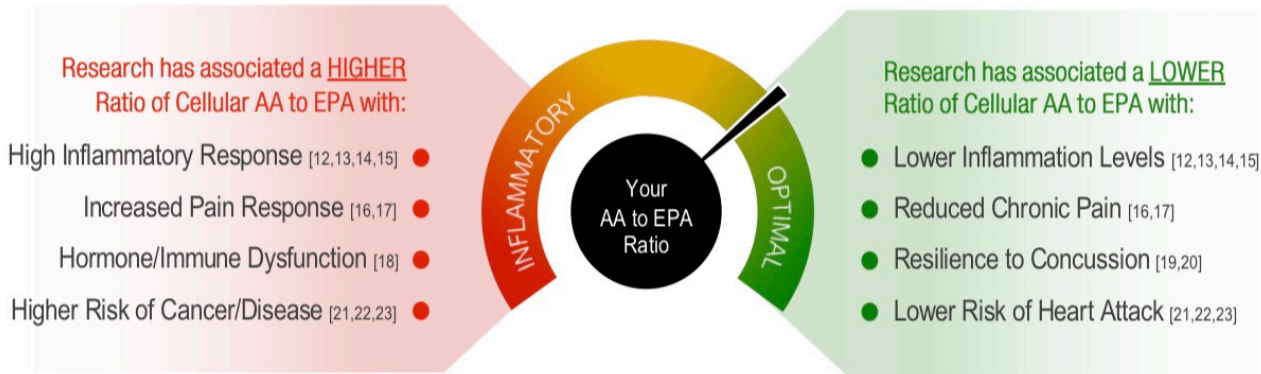
The majority of people in the United States have major imbalances in fatty acids due to the way we eat and grow our food. We have a significant deficiency of Omega-3s (from fish) in our diet and a significant excess of Omega-6s (from corn, soy, vegetable oils, and processed foods).

The fatty acids in your cell membrane are a reflection of the average fatty acids in your diet over the last 90 days. However, Omega-6s tend to increase inflammation whereas Omega-3s tend to decrease inflammation. Balancing these fatty acids is foundational to properly regulating your body's inflammatory response.

Everyone should track their dietary balance of pro-inflammatory Omega-6s to anti-inflammatory Omega-3s. A ratio of 6 or less Omega-6s to every 1 Omega-3 is essential to properly balancing inflammation, modulating pain receptors, and regulating immune system function.


RESEARCH & ASSOCIATED CONDITIONS:

The graph below shows how your AA (Omega-6) to EPA (Omega-3) Ratio compares to current research studies.




RECOMMENDATIONS:

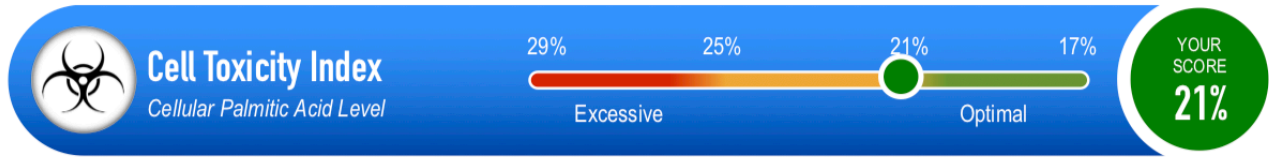
To Improve your Cell Inflammation Index within 3 months, you will need to do the following:


Nutritional supplements like boswellia serrata and curcumin inhibit Omega-6 inflammatory pathways and help balance inflammation.


Processed foods are high in pro-inflammatory Omega-6s. Reducing these foods will help balance your inflammation ratio.


Grass fed meat is higher in Omega-3s. Grain fed meat is high in Omega-6s. Eating grass fed meat will improve your ratio.


Replace commonly used vegetable oils with healthier alternatives such as olive, macadamia nut, or hi-oleic sunflower oils.



YOUR CELL TOXICITY INDEX:

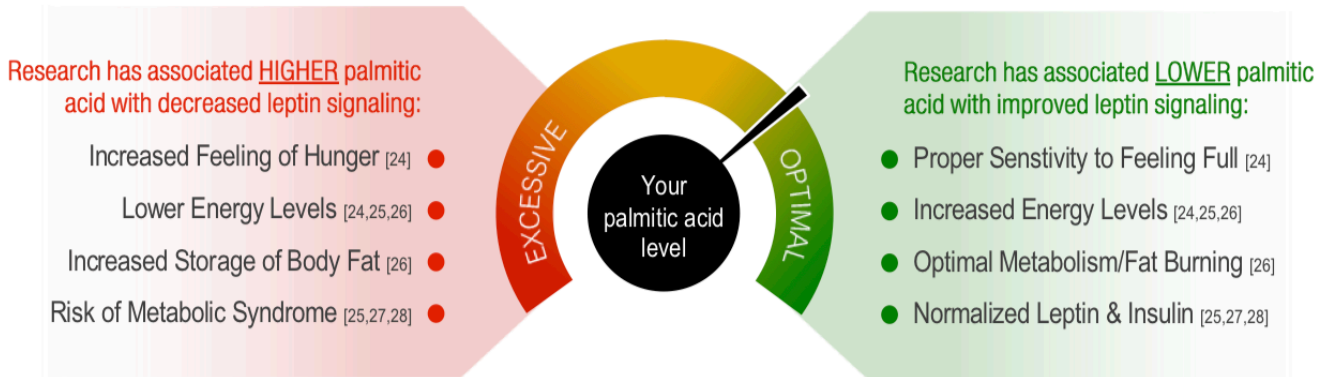
Excessive palmitic acid (usually from a diet high in simple carbohydrates) is associated with fatty acid alterations within the cell that can suppress the proper signaling of hormones critical to proper cell-to-cell signaling. Maintaining optimal palmitic acid levels helps normalize leptin and insulin signaling, which helps regulate your metabolism, increases your energy, and improves neurotransmitter communication.

Your brain communicates with your fat cells throughout your body using leptin signaling. Similar to how a thermostat turns on and off the air to keep the temperature in your house stable, leptin communicates to your cells to burn or store fat.

When proper leptin signaling occurs, the brain properly stimulates a feeling of “full”, increases energy, and starts burning body fat. When leptin signaling is suppressed, the brain stays in “hungry” mode, lowers energy output, and stores body fat.

RESEARCH & ASSOCIATED CONDITIONS:

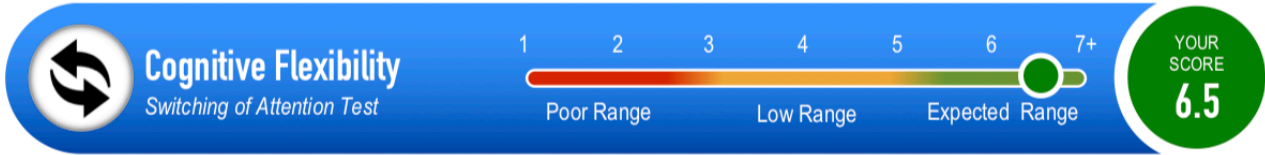
The graph below shows how your palmitic acid level may be affecting your leptin signaling.



RECOMMENDATIONS:

To Improve your Cell Toxicity Index within 3 months, you will need to do the following:

 <p>Supplements such as coenzyme Q10 & chromium encourage healthy blood sugar by improving carbohydrate metabolism</p>	 <p>Reduce your consumption of simple carbs (sugars) so they don't convert to palmitic acid and store up in your cells.</p>	 <p>Eat smaller, low glycemic, high protein meals more frequently throughout the day to stabilize your blood sugar production.</p>	 <p>Increase exercise so that your body uses more calories and does not convert as much glucose to palmitic acid for storage.</p>
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What This Score Means to You

On the cognitive flexibility test, you scored a 6.5 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.

Cognitive flexibility is your capacity to rapidly adapt your thinking based on new information and not get stuck in compulsive behavior. Your brain must be able to reorganize itself by forming new neural connections.

Poor cognitive flexibility scores may be due to a decreased production of the neurotransmitters serotonin and GABA.

How to Improve Cognitive Flexibility

- ✓ Getting all three of your blood cell biomarkers into the green zone can optimize your cognitive flexibility.
- ✓ Meditation – research has shown that mindfulness meditation can significantly enhance cognitive flexibility.
- ✓ Probiotics support gut microbiome function and optimize the production of neurotransmitters Serotonin and GABA, which help support cognitive flexibility.
- ✓ 5-HTP is a metabolite naturally made in the brain, is converted to serotonin as needed to promote positive mood, relaxation, and quality sleep.
- ✓ Vitamin B12 with Folate is essential for structural integrity of the brain and spinal cord. They produce neurotransmitters and key enzymes that improve overall cognitive skills.



What This Score Means to You

On the processing speed test, you scored a 6.3 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.

Processing speed is the pace at which you take in information, make sense of it and begin to respond. It has nothing to do with how smart you are -- just how fast you can take in and use information.

Slow processing speed is associated with inefficient connections in the brain's gray matter. These weak connections may be due to nutrient deficiencies in brain cells, limited production of vital neurotransmitters, chronic stress, lack of quality sleep, and toxins in your diet (such as refined sugars and processed foods).

How to Improve Processing Speed

- ✓ Getting all three of your blood cell biomarkers into the green zone can optimize your processing speed.
- ✓ Curcumin (Turmeric) keeps your brain sharp under pressure. It has also been shown to decrease plaques in the brain linked to Alzheimer's disease.
- ✓ Ginkgo Biloba & Acetyl-L-Carnitine have been shown to enhance cognition in healthy individuals as well as those with age related cognitive impairment.
- ✓ L-Tyrosine can increase the production of neurotransmitters that are essential for the brain's functions such as processing speed, problem solving, and making decisions.
- ✓ A recent study showed that one particular type of brain exercise - called "speed training" can increase processing speed and even significantly reduce the risk of developing dementia.

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Date of Assessment: 10/25/17








Lab Processing Date: 11/1/17

Barcode ID: HCP-11303

Patient ID: 17739-JD-01

Your results below quantify the health of the trillions of cells in your body and the functional performance of your brain. Getting to the "green zone" in each index below and staying there as you age, increases your resilience and optimizes the performance of every organ system in your body, including your brain function. Based on your assessment, your health care provider has provided the below nutritional recommendations to improve your scores and support your optimal cell health. Additionally, you can track your cell health and brain function over time to be sure you are living in the green and aging optimally.

Summary of Results & Recommendations

Test/Description	Score History	Current Score	Recommendations
 Omega-3 Index % EPA/DHA in Cell Membrane - Memory/Focus/Mood - Risk of Dementia/Stroke/CVD - Concussion Resilience	1/16/17 4/5/17 7/15/17	10/25/17 8% OPTIMAL RANGE	Oily Fish (Salmon/Herring) Eat a 3 oz. serving 3 x's/week or Fish Oil Supplement 1,000 mg EPA/DHA per day <i>Ask your doctor to recommend a quality Omega-3 supplement that has demonstrated a high level of cellular absorption. The most important factor is how much EPA and DHA is absorbed into your blood cells.</i>
 Cell Inflammation Balance Omega-6 to Omega-3 Ratio - Inflammatory Response - Immune Function - Pain Response		6:1 OPTIMAL RANGE	Boswellia Serrata Take as directed <i>Blocks specific enzymes involved in the metabolic pathway leading to inflammation.*</i> Curcumin (Turmeric) Take as directed <i>Curcumin inhibits the arachidonic acid (Omega-6) inflammatory pathways.*</i>
 Cell Toxicity Index Excess Palmitic Acid Levels - Energy/Metabolism - Fat Burning Management - Risk of Metabolic Syndrome		21% OPTIMAL RANGE	Protein Meal Replacement Take as directed <i>Replace high carb processed foods with a low-glycemic protein meal replacement.*</i> Coenzyme Q10 & Chromium Take as directed <i>Encourages healthy blood sugar by improving carbohydrate metabolism.*</i>
 Memory Capacity On the memory capacity test, you scored a 7 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.		7 NORMAL RANGE	Vitamin D Take as directed <i>Research shows that memory declines two to three times faster in individuals with low levels.*</i> Phosphatidylserine Take as directed <i>Shown to enhance memory for words, faces, and numbers. Also supports general brain health.*</i>
 Sustained Attention On the sustained attention test, you scored a 6 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.		6 NORMAL RANGE	Magnesium with B6 Take as directed <i>Supports brain cells in producing vital neurotransmitters needed for sustaining attention.*</i> Zinc Take as directed <i>Provides antioxidant protection and has consistently enhanced attention in clinical trials.*</i>
 Cognitive Flexibility On the cognitive flexibility test, you scored a 6.5 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.		6.5 NORMAL RANGE	Probiotics Take as directed <i>Supports gut microbiome function which optimizes the production of Serotonin and GABA.*</i> 5-HTP Take as directed <i>Converts to serotonin as needed to promote positive mood, relaxation, and quality sleep.*</i>
 Processing Speed On the processing speed test, you scored a 6.3 out of 10 based on your age and gender. This is considered to be in the EXPECTED range.		6.25 NORMAL RANGE	L-Tyrosine Take as directed <i>Increases production of neurotransmitters essential for the brain's processing functions.*</i> Vitamin B12 with Folate Take as directed <i>Essential for structural integrity of the brain and spinal cord as well as improving overall cognitive skills.*</i>

*This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.