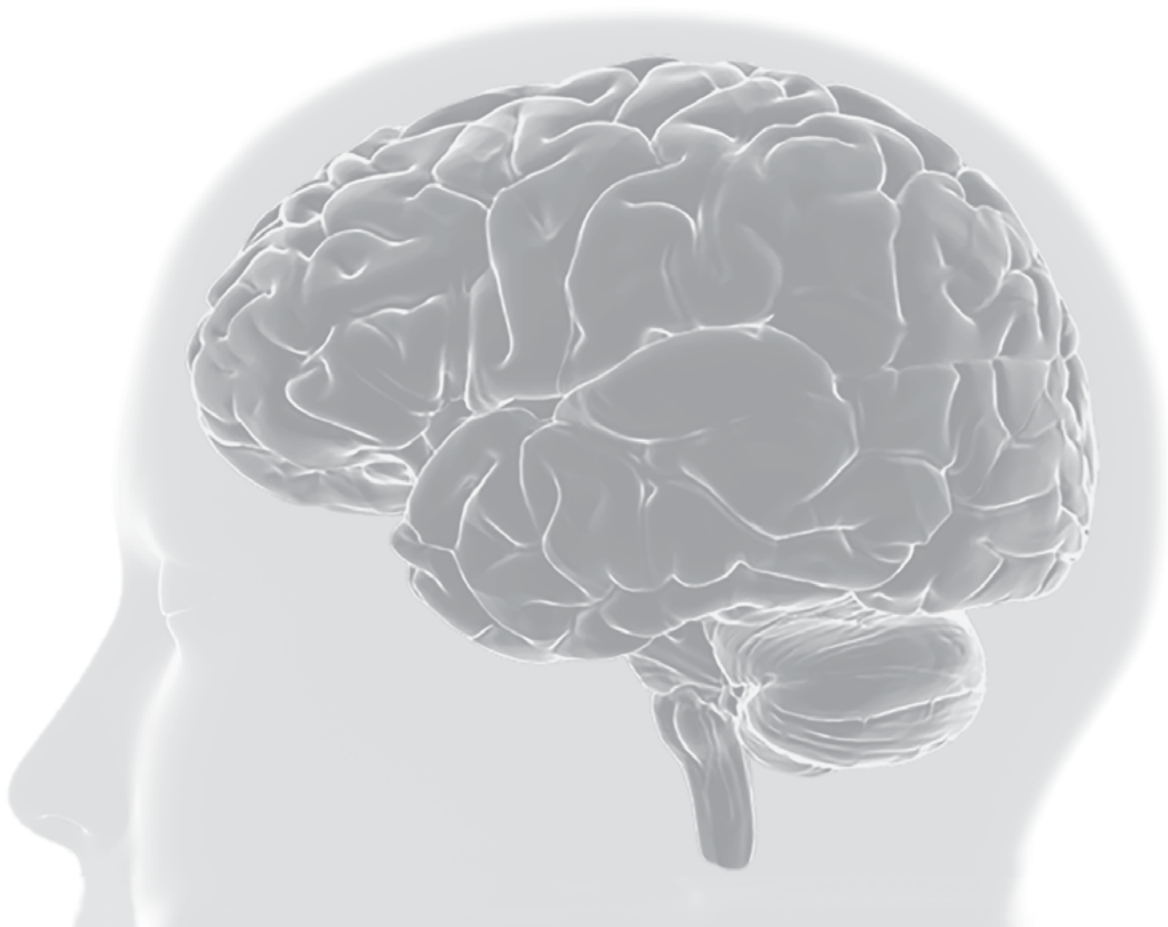




Practitioner Overview

Life's Most Important Numbers



Welcome Letter from the Founder

I would personally like to thank you for exploring this critical area of patient testing and education that directly addresses a widespread nutritional crisis in 95% of our patients. A crisis that limits their potential today and threatens their long term function. Many of you already employ evidence based nutritional approaches to addressing this problem. Our approach is simple: let us partner with you to provide a more specific, meaningful, and engaging roadmap that keeps your patient on the path you have set.

Knowing the solution is not enough. We need our patients to be aware, engaged, concerned, and committed. When we have that combined with the excellent interventions that some of our branded partners represent, we can truly change lives and make our practices more resilient. Let us show you how nutritional testing can be fun, functionally relevant, and incredibly meaningful to the quality of our lives and practice. That will make the next 20 minutes perhaps the most important of your life.

Sincerely,



Daniel T. Johnston, MD, MPH Founder BrainSpan

Battle field tested.
Academically validated.
Practitioner and patient accepted.



Stanford University



Brain Health Facts

Fact: *Inflammation is the epicenter of all disease. Fatty acid levels ultimately govern inflammatory hormone levels, blood flow, and quality of nervous control.*

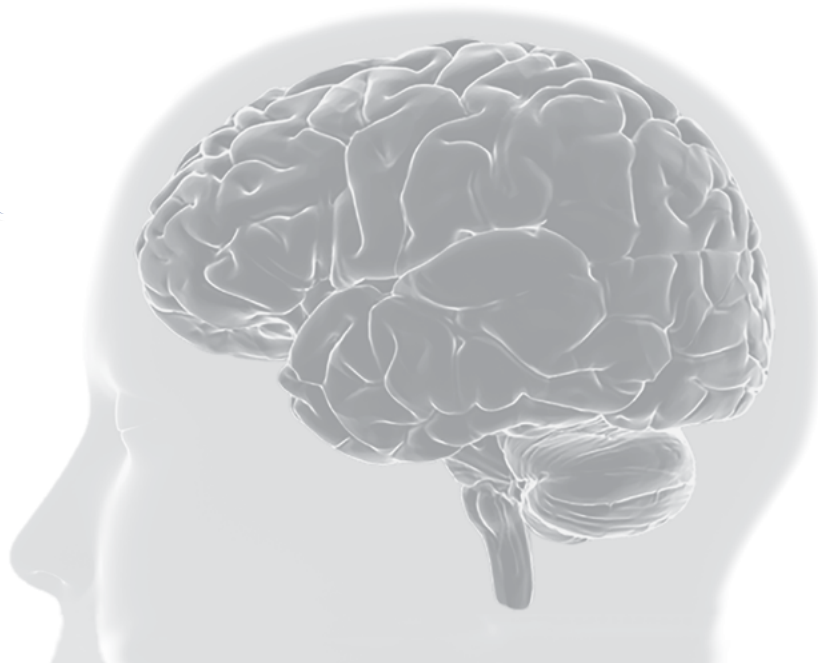
Fact: Brain health is rapidly becoming one of the top 3 reasons people consume supplements.

Fact: Brain health is a major concern in 9 out of 10 patients.

Fact: The risk of heart attack, stroke, depression, cognitive decline, autoimmune disorders, premature aging, and even sudden death is dramatically higher in those with poor fatty acid profiles.

Fact: The American Heart Association, American Stroke Association have said brain health is likely the most effective way to get people to adopt new, healthy lifestyle choices.

Fact: 9/10 patients have a major imbalance in their cellular essential fatty acids despite believing their diet is adequate that their supplements are working.



Our Proof

Independent samples sent to the other top 5 labs demonstrated significant variation with as much as 7 percentage points compared to the RBC method we employ that requires 60 minutes of preparation and testing. This is despite the relative high cost of other labs despite less utility clinically.

Specially treated, proprietary blood spot cards ensure fatty acids are stable for up to **23** days with 0% degradation. The RBC technique does not require patient fasting like most other labs. We are the only clinical support tool with independently validated CLIA certified lab partners with a paired cognitive functional test. The blood test alone has over 160+ peer reviewed publications to date. There is no other fatty acid test that comes close.

BrainSpan has documented the report's ability to drive patient engagement and compliance through its highly educational patient-friendly narrative and graphics. It is the only report that demonstrates an ability to drive an average improvement in fatty acid scores of **81%** between baseline and the first re-test and an average executive function improvement of **34%** by the 3rd test in months 4-6.

This reflects dramatic increases in compliance with nutritional practice revenues seeing 2-3x growth in the first year.

Fact: *The average fatty acid dried blood spot on the market degrades 10% per day.
The method we use has a published 98% correlation with whole blood fatty acids.
The test was the first to be selected for evaluation in combat settings by the US Army
and the only cell health test with an integrated functional assessment.
The latter has over 450+ peer reviewed studies.*



What We Measure

Our assessment results provide a detailed overview of three critical fatty acid biomarkers, four cognitive function indices, and the BrainSpan Index for a calculated Brain Age and predicted resilience to aging. **In addition**, the report provides six clinical summary scores that are calculated using various fatty acid markers from the 20 that are measured, demographic data, and functional indices within algorithms based on the latest scientific literature. The three direct fatty acid markers in the report as stand alone markers include the Omega-3 index (EPA/DHA), Omega-6/Omega-3 ratio (AA/EPA), and Palmitic Acid. The results of the cognitive function test include markers of Attention, Memory, Processing Speed, and Cognitive Flexibility.

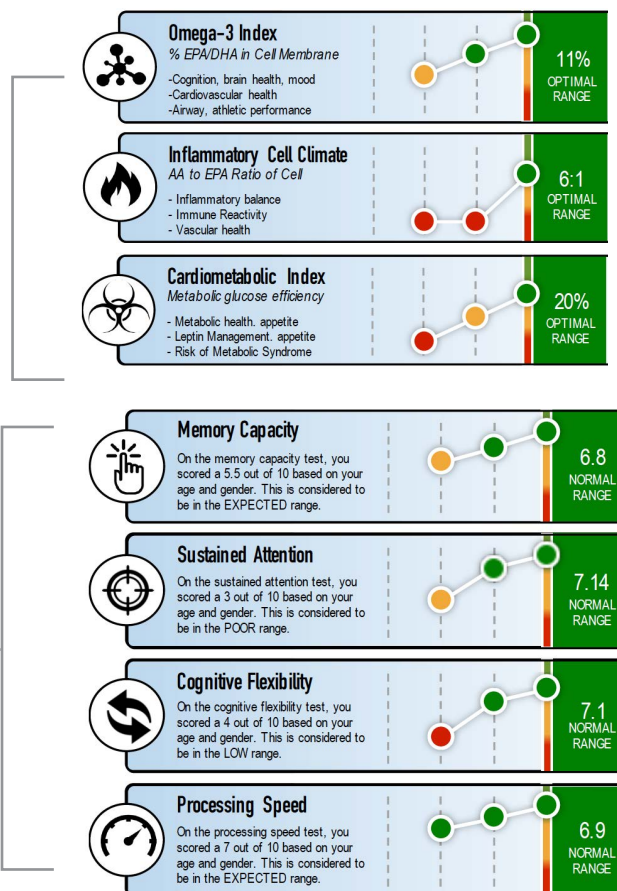
Together these metrics quantify the health and performance of the nerve cells and how efficiently the brain is functioning. Nerve cells require an optimal balance of Omega-3 and Omega-6 fatty acids. This reduces inflammation and improves signaling throughout the entire nervous system.

Additionally, optimal nerve cell health requires the elimination of toxins that can cause cellular destruction and interfere with optimal hormone and neurotransmitter production.

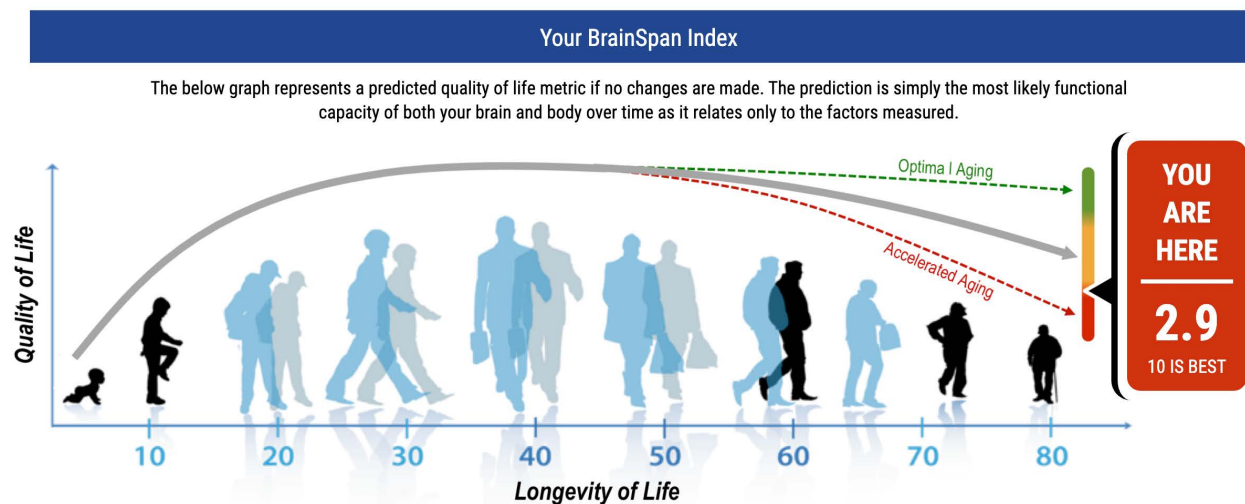
Basic RBC fatty acid panel via
Fingerstick Collection and Mail to Lab



Four Web-Based Cognitive Function
Testing areas (15 Min)



What We Measure (Continued)



Brain-Body Coherence



This reflects overall quality of the brain-body integration. Cell membranes must have healthy levels of DHA to communicate & regulate organ functions.

Cardiovascular Health



This derives from your overall "cell climate" and vascular health. EPA, an Omega-3, is critical here. Associated conditions: heart disease, chronic pain, immune system & metabolic disorders.

Mood & Metabolic Health



Mood and appetite are tightly controlled by a hormone called leptin and an Omega-3, EPA. Palmitic acid interferes with leptin signaling. Optimal EPA levels improves mood, satiety, and lessens impulsivity.

Neuro-development & Dementia



Studies suggest you may improve motor and verbal development in youth (age 3+) and lower the risk of dementia (age 50+) by improving DHA status and seafood consumption.

Resilience to Concussion



Studies suggest the level of cell resilience and fluidity prior to injury (largely determined by levels of EPA and DHA) significantly influences how much nerve damage is done. It also affects how fast you recover.

Risk of Stroke



Large, prospective studies suggest you maybe able to lower your risk of a future stroke by improving your overall vascular health largely affected by the Omega-3 Index, especially EPA.

How We Measure

With our BrainSpan Kit, a simple blood spot test can significantly improve your life by targeting the root of pain, inflammation, and chronic disease. Our FDA compliant kit is simple and painless to use, simply follow our four steps below and your patient will be on their way to improving their quality of life.

Measure. Track. Improve.



1

Register Kit (1 Min)

Register your kit using a unique kit code online at www.mybrainspan.com or your practitioner can register for you inside their account.



2

Fingerstick Collection and Mail To Lab (3 Mins)

A simple, painless, needle-less fingerstick collects 3-4 drops of blood on a highly specialized card. This makes the results the most objective fatty acid results available with 160+ studies.



3

Web-Based Cognitive Function Test (15 Min)

If you registered your kit online, you will receive the cognitive function test by email from BrainSpan. Your practitioner can also start it from their account in the office.



4

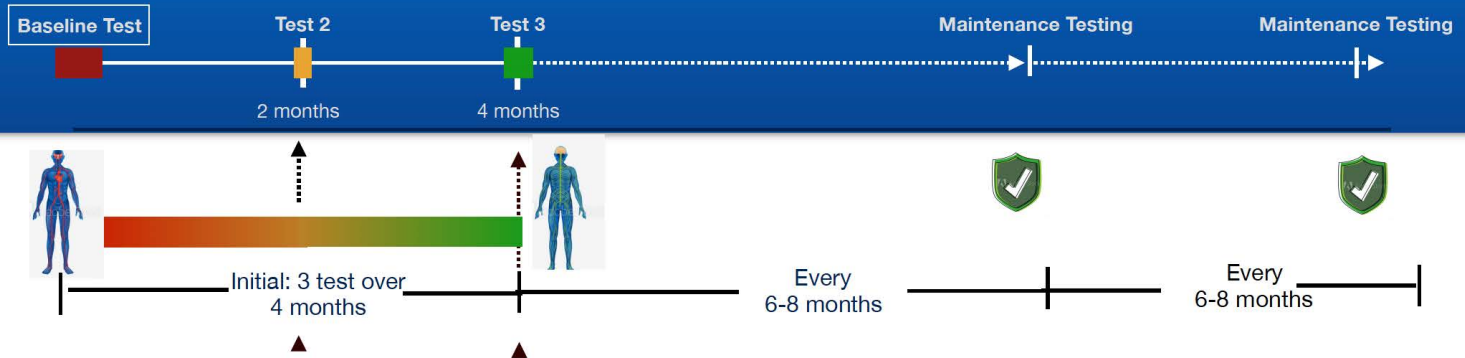
Learn & Track Progress Within 14-21 Days

Learn what it all means and why it matters. What does the future look like if you don't make changes?

The only way to know and improve your brain and body cell health is through testing and re-testing to track a patient's progress.

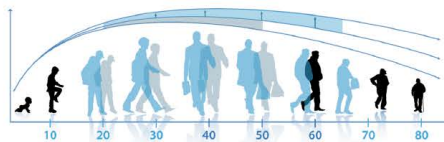
The Protocol

Meet the Standard of Care: Fatty Acid and Cognitive Testing Clinical Testing Requirements



First 4 months: 3 tests

- Interval duration: 4 months
- Purpose:
 - Move into green on all blood fatty acids
 - Establish Baseline Cognitive Function



Note: Pregnancy and breastfeeding or the presence of chronic illness may affect this protocol. Pregnancy: 2 tests split evenly over the first trimester then once per 2nd and 3rd trimester. Then every 3-6 months while breastfeeding. Chronic illness: same initial protocol then every 3-6 months.

Ongoing Health Surveillance 1 test every 6-8 months

- 1 test semi-annually
- Interval duration: 6-12 months
- Purpose:
 - Ensures long term compliance (habits) with nutritional and lifestyle changes
 - Adjust dosing of supplementation as required with aging to optimize and defend
 - Tracking of cognitive function to optimize function and detect early decline to adjust supplementation/nutrition before clinical disease

Reporting System

10 page, patient-friendly and compliance boosting



Healthcare Provider: Daniel Johnston
Office Address: 2671 Avenir Place, Suite 2123,
Vienna, VA 22180
Office Phone Number: (703) 964-6367

Date of Assessment: 03/29/2018
Lab Processing Date: 04/17/2018
Barcode ID: HCP-14722
Patient Name: Emily Akradi

BrainSpan™ Cell Health Assess

All diseases are disturbances at the cellular level. To treat disease, we must understand the alteration of individual cells. – Yale School of Medicine

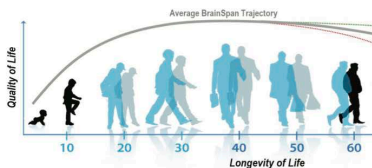
Your BrainSpan results provide you with some of the most important numbers in the health of your cells dictate the health and function of your entire brain and body. The cells called essential fatty acids (EFAs). These fatty acids have many important health of your brain and body. Your brain is 60% fat and most of that is from an Omega-3 fatty acids also regulate your metabolism and inflammation throughout your

Most Americans have major imbalances driven by dietary, genetic, and cultural factors unrecognized and increase your risk of many preventable chronic diseases such as study by Harvard School of Public Health linked these fatty acid imbalances to over preventable deaths per year. Without measuring and tracking, you are in the dark v cells – the foundational building blocks of your entire brain and body.

Additionally, this assessment measures the functional performance of your brain or cognitive challenges that compared your memory, attention, and processing speed your same age and gender using the Brain Resource International Database® (the brain health database). This provides you with a brain function baseline. Tracking your early detection of small changes that may be quickly improved with nutritional and l

Your BrainSpan Trajectory Index™

*Your BrainSpan Trajectory Index is based on the results from your blood cell test and brain report has been weighted based on relevant scientific literature regarding age-related cognitive Research shows that maintaining your scores in the "green zone" lowers your risk of cognitive inflammatory diseases like Alzheimer's Disease and heart



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Emily Akradi DOB: 06/15/74 Serial # HCP-14722
Assessment Date: 03/29/18 Lab Processing Date: 04/17/18



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, anxiety, depression, and inflammatory ways to help prevent Alzheimer's disease and what calcium is to your bones.

RESEARCH & ASSOCIATED COI

The graph below shows how your

Research has associated LOWER Omega-3 Index Scores with:
Higher Risk of Dementia & Stroke (1.23)
Decreased Short-Term Memory (4.5)
ADHD & Slower Learning (6.78)
Increased Stress & Anxiety (8.10.11)

To achieve an Omega-3

Eat a 3 oz. serving of oily Herring, Bluefish at least week to maintain in the

Ask your doctor to recommend The most important factor is how supplements really doesn't make EPA & DHA (from fish). Omega your Omega-3 Index. See App

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Emily Akradi DOB: 06/15/74 Serial # HCP-14722
Assessment Date: 03/29/18 Lab Processing Date: 04/17/18



What This Score Means to You

On the cognitive flexibility test, you scored a 4.5 out of 10 based on your age and gender. This is considered to be in the LOW 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 6.5 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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Who We Measure



Healthy Weight

Six weeks of increased EPA & DHA significantly improved lean muscle mass and decreased fat mass in healthy adults



Aging

Jama study suggests individuals with a higher Omega-3 index have a 65% slower cellular aging process



Concussion Resilience

Increased DHA levels inhibit neuronal cell death and is an important neuroprotective agent



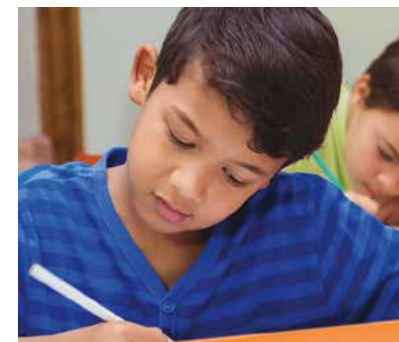
Improved IQ

Maternal dietary consumption of Omega-3 fatty acids during pregnancy improved children's IQ



Risk of Dementia

Individuals with high blood cell DHA had a 47% lower risk of developing dementia than those with low DHA

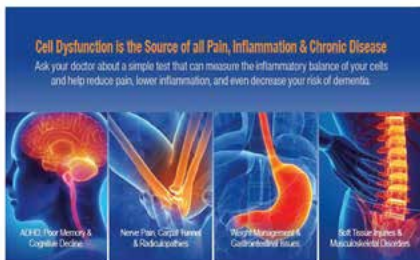


Attention and Behavior

Children's level of DHA in their blood cells significantly predicts their ability to concentrate & learn at school

Marketing Materials

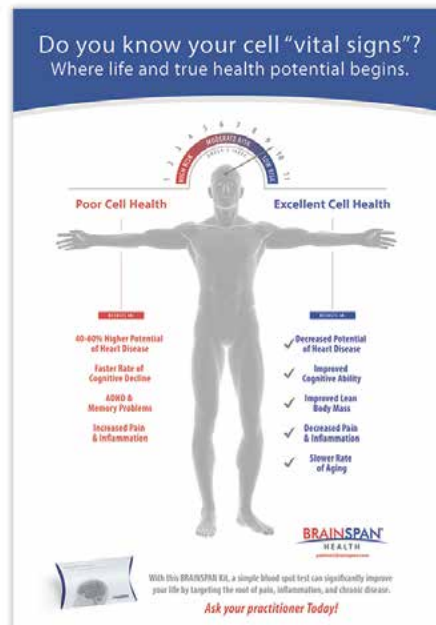
BrainSpan has produced nicely printed marketing materials that can be displayed throughout your office to better inform your patients of the possibility to improve their cell health and decrease their chronic pain due to inflammation. You may view these marketing samples on our website at <https://www.brainspan.com/marketing>



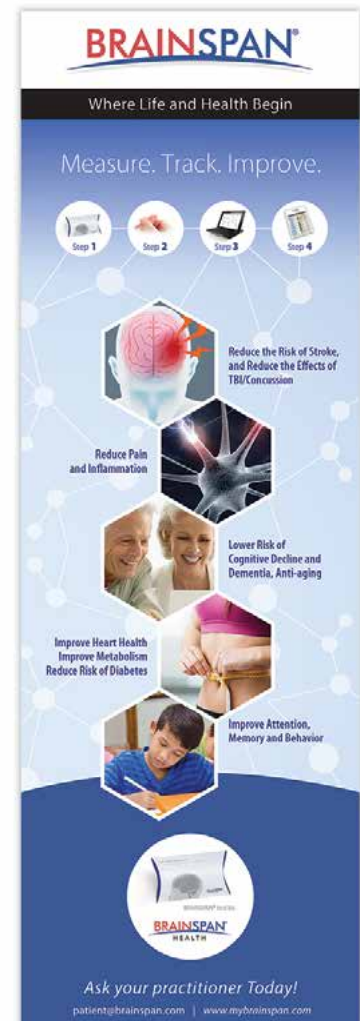
Brochures (A)



Brochures (B)



Posters (18" X 26")



Banner Stands (2' X 7')

*Sign up today at
www.brainspan.com/order*

*For the best offers, be sure to select your
nutritional partner referral source if applicable*

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