

JOIN THE INTERNATIONAL Nutrient**actyon* PROJECT

What are your nutrient levels? How are they affecting you?

- How do they track with your desired health outcomes?
- How do your levels compare with those of 1000's of others with similar health targets?
- What do nutrient researchers recommend?

What is participation?



ENROLL

Join the project at grassrootshealth.net/register



ORDER YOUR TEST(S)

The project offers self-sponsored blood spot tests that can easily be done at home.

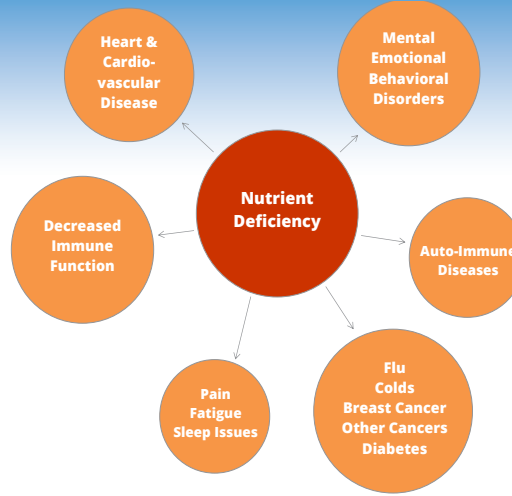
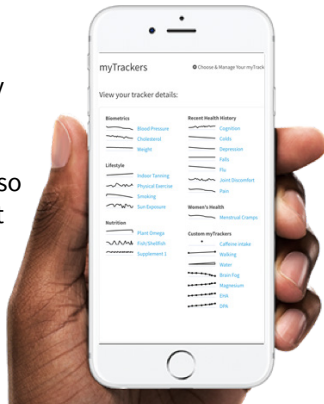


TRACK

After your test and questionnaire have been completed, use the **myDatamyAnswers** Personal Health System to track your results and see how you compare with others.

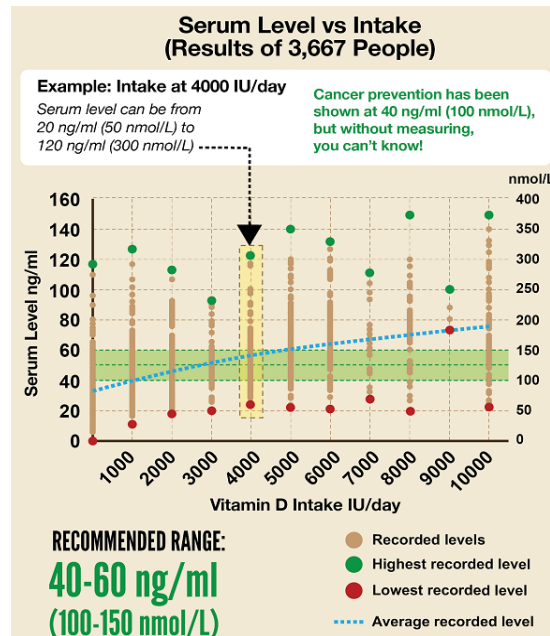
As a participant, you will receive

- Your individual response to changes tracked as measured by blood tests
- Individual health impacts can also be tracked and correlated to test results



WHAT DOES YOUR NUTRIENT RESPONSE TELL YOU?

The body's health outcomes are more closely associated with the specific blood measurements than with intake dosages. Everyone experiences a unique response to supplementation, nutrient intake, and how the nutrients interact, all of which can be influenced by several factors (see more inside). The vitamin D dose-response chart below illustrates the wide variation in response for individuals at a specific intake amount.



The only way to know where you are is to measure!

GRASSROOTSHEALTH NUTRIENT RESEARCH INSTITUTE

Invites Your Participation

Nutrient**actyon*

Up to 75% world-wide are vitamin D deficient
More than 80% are deficient in omega-3s
Over 45% of the US are likely magnesium deficient

Widespread deficiency of these nutrients may be contributing to the rise in health problems such as

- fatigue and pain
- cardiovascular issues
- respiratory diseases
- mental disorders
- decreased immune function
- preterm birth
- musculoskeletal issues
- cancers, esp. breast and colon cancer
- diabetes and metabolic disorders



**GrassrootsHealth
Nutrient
Research Institute**

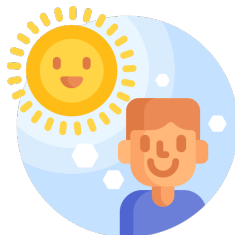
**Moving
Research
Into Practice**

What is vitamin D?

Vitamin D3, also known as the “Sunshine Vitamin,” is one of the chemicals that our body uses to unlock the DNA blueprints contained in all tissues, and which are needed for our cells to produce the many biochemical products required for their day-to-day functioning.

Why do we need vitamin D?

Every tissue in our bodies needs vitamin D and may be impaired if we do not get enough. In its most extreme forms, vitamin D deficiency results in rickets in children and osteomalacia (bone softening) in adults. Milder degrees of deficiency are now understood to be among the risk factors of a vast array of chronic diseases, including osteoporosis, impaired immune function, various autoimmune diseases (such as diabetes and multiple sclerosis), several cancers (such as breast, colon, lung, lymphoma, and prostate), high blood pressure, pregnancy complications, and cardiovascular disease. Our Scientists’ Panel recommends a range of 40-60 ng/ml (100-150 nmol/L) of the 25(OH)D level.



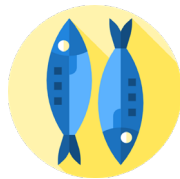
RECOMMENDED RANGE

40-60 ng/ml
(100-150 nmol/L)

What are omega-3s?

Two very important omega-3 fatty acids are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). Individual levels vary across the globe, with most countries and regions having levels that are considered low to very low (such as the USA). Omega-3 deficiency can lead to a higher risk of heart disease, cognitive decline, and other health problems. Hundreds of studies suggest that omega-3s may also provide benefit for a

wide range of other diseases, including asthma, preterm birth, depression, ADHD, autoimmune diseases, and cancer. They are beneficial for normal vision, liver function, immune function, skin health, maternal health, brain health, heart health, joints and muscles. The current target range is an Omega-3 Index level of 8.0% or higher.



TARGET RANGE
INDEX OF
8.0%
OR HIGHER

Why is magnesium important?

Over 45% of the US population consumes less than the average daily requirement of magnesium (which ranges from 310–420 mg for those 14 and older, depending on age and gender), thus are very likely deficient. This widespread deficiency may be contributing to the rise in many health problems such as musculoskeletal pain, atrial fibrillation, stroke, heart failure, preeclampsia, weakened bone health, mental, emotional & behavioral disorders, and diabetes.



Cedric F. Garland, Dr.P.H., Professor Emeritus, Department of Family Medicine and Public Health, University of California San Diego is the D*action study’s principal investigator.

How do different nutrients act together?

A major influence on how the body is able to respond to a specific nutrient is the status of its co-nutrients. Co-nutrients work together to carry out a multitude of functions within each system of the body, and the level of one can even affect the level or absorption of another. If the body has enough of a nutrient, but not enough of a co-nutrient, overall response and utilization will be limited, which could lead to dysfunction and disease.

Measure to know how much to take.

Once nutrient status has been measured, intake can be adjusted through diet, lifestyle habits, and supplementation. Supplementation calculators are available for both vitamin D and omega-3s to help participants determine adjusted doses to go from a current to a target nutrient level. Re-testing after 3-6 months can help determine if your target levels have been reached or if further adjustments are needed.



What else can be measured through the project?

Any of the following co-factors can be measured along with your vitamin D for an additional fee:

- Omega-3 Index (option to add AA:EPA, Omega-6:Omega-3)
- Magnesium (option to add Selenium, Zinc, Copper, Cadmium, Lead and Mercury)
- HbA1c (a marker of blood sugar metabolism)
- hsCRP (a marker of inflammation)
- Thyroid Stimulating Hormone (TSH)