AN INDIVIDUALIZED APPROACH IS NECESSARY FOR ACHIEVING YOUR TARGET NUTRIENT LEVELS

What is needed for participation?

TEST YOUR LEVELS

Using a home blood spot test kit this project measures blood levels of vitamin D, omega-3s, hs-CRP, HbA1c, and T1D autoantibodies every 3-6 months.

COMPLETE ONLINE SURVEYS

Each time you test with additinal check-ins.

HOW DO YOUR NUMBERS COMPARE TO THE TARGET?

Are your levels in range? Or do you need to take steps to improve them?

TAKE STEPS TO ACHIEVE YOUR OPTIMAL LEVELS

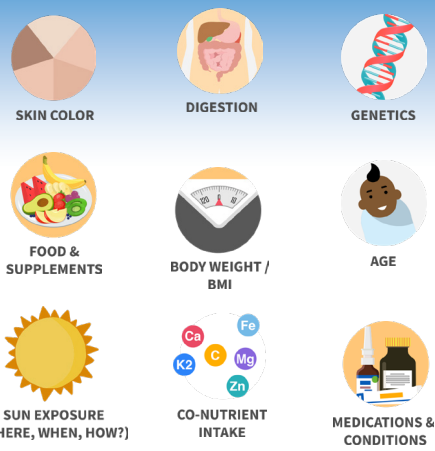
Supplement with vitamin D3, omega-3s, etc. Dose based on your current levels, target levels, and other factors.

Use the vitamin D*calculator at **https://grassrootshealth.net/dcalculator**, which offers an accurate calculation based on weight, current vitamin D level, and preferred target vitamin D level. A similar calculator is available for omega-3 dosing.

Receive education about supplementation, diet, and other lifestyle factors that can help decrease T1D risk.

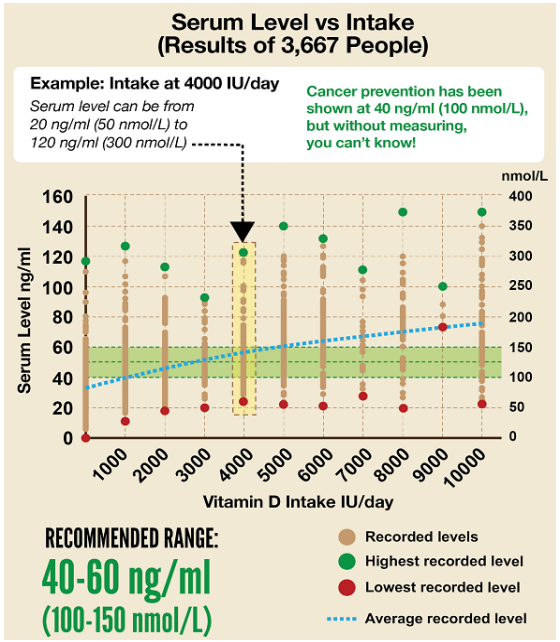
RETEST EVERY 3-6 MONTHS

Follow-up is included to retest and repeat the process to achieve and maintain your target levels and check autoantibody status.



PRECISION DOSING BASED ON RESULTS

Everyone responds differently to vitamin D, by up to 6 times for the same supplement amount! It is possible for an intake of 4000 IU/ day to result in a serum level of 25 ng/ml (62.5 nmol/L) in one individual and 60 ng/ml (150 nmol/L) in another. A similar dose-response relationship exists for omega-3s, which is why suggesting the same dose of vitamin D or omega-3s for everyone may not be sufficient for some. This is also why dosing must be based on a person's current status and target level.



Could vitamin D and omega-3 fatty acids help prevent or delay Type 1 Diabetes?

GrassrootsHealth Nutrient Research Institute

Moving Research Into Practice

Trusted Science for Efficacy

Vitamin D*action

TYPE 1 DIABETES PREVENTION STUDY

Implementing a protocol to help prevent or delay T1D onset among those at risk

ENROLL TODAY!

grassrootshealth.net/t1d

Scholarships are available to those who have tested positive for one or more of the known T1D autoantibodies

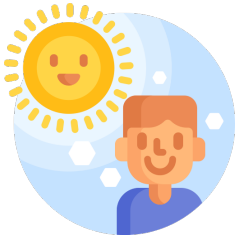
Vitamin D*action - FREQUENTLY ASKED QUESTIONS

What is vitamin D?

Vitamin D, which is both a nutrient and a hormone, is needed by virtually every cell in the body and is essential for hundreds of processes each and every day. It acts as a regulator of all cell types, tissues, and organs, and enhances the functioning of each system of the body to help keep us healthy.

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. The GrassrootsHealth panel of 48 Vitamin D scientists recommends a vitamin D blood level (measured as 25(OH)D) in the range of 40-60 ng/ml (100-150 nmol/L) for disease prevention.



RECOMMENDED RANGE

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

How do you get Vitamin D?

People obtain vitamin D from three sources: sun exposure, food sources, and supplements. In the past, humans achieved the optimal vitamin D blood level of 40-60 ng/ml (100-150 nmol/L) living a nomadic lifestyle. However, most modern humans are not able to reach optimal blood levels with the occasional sun exposure and food sources typical of modern day living without supplementation.

What are omega-3 fatty acids, and why are they important?

Omega-3 fatty acid intake and levels have been associated with T1D risk. Two of the most important, found mostly in fatty fish, are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). The typical diet for most individuals, *up to 80-90% in some countries*, does not provide enough, leaving a majority deficient.

The AA:EPA ratio is a measure of the primary pro and anti-inflammatory omega-3s. A lower AA:EPA ratio is better for health and has been associated with lower levels of inflammation and a lower T1D risk.

How can you know if you are deficient?

An estimated 75% of the world's population is vitamin D deficient, and as children grow, their risk for deficiency increases. The only way to know if they are getting enough is to measure the levels. Measuring the Omega-3 Index, AA:EPA ratio, and 25(OH)D is the first step to ensuring healthy levels associated with decreased T1D risk.

This study is brought to you by:

CWD Research Foundation
GrassrootsHealth Nutrient Research Institute
Moving Research Into Practice
omegaquant
Diabetes Research Institute
University of Miami

Cedric F. Garland, Dr.P.H., study Principal Investigator
Camillo Ricordi, MD, FNAI study Co-PI

Success Story: A 24+ Year Delay (and Still T1D Free)

At age 11, Ben tested positive for two of the T1D autoantibodies, which were present along with high levels of inflammation in his blood. Ben's doctors were convinced that he would be diagnosed with T1D within the next few months.

Determined not to allow this to happen, Ben's mom dug into the research and discovered a connection between inflammation and T1D, and consulted with researchers who had proposed a role of fish oils and vitamin D in delaying T1D diagnosis. She then developed a 'cocktail' of supplements to start Ben on, which includes high doses of omega-3 fats and vitamin D. "Ben's Cocktail" has now been shared with many others around the world who have tested positive for the T1D autoantibodies, and since then, she has received similar stories from those who have implemented the protocol with their children, and for themselves.

We now invite anyone who shares this experience, or who would like to give this protocol a try, to become part of our T1D Prevention Study, so that we can measure, track, and publish the findings to help make this an officially recognized protocol in the scientific journals – and more likely to be discovered, shared, and accepted.

Can T1D be prevented? Help us find out.

Evidence has shown that maintaining a vitamin D level of 40-60 ng/ml (100-150 nmol/L) and an AA:EPA ratio below 3 may help delay or prevent diagnosis. Take action or share this information today!

Learn More About Joining This Study!

Visit grassrootshealth.net/t1d

Questions? Email jen@grassrootshealth.org