



## Traits Explorer

# DEMO REPORT

## Nutrition

Nutrition is the biochemical and physiological process by which an organism uses food to support its life. It includes ingestion, absorption, assimilation, biosynthesis, catabolism and excretion.

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20 entries

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### Calcium Levels

This result is based on **215 genetic variants** associated with "Calcium Levels"



Nutrition

#### Your results

**Slightly lower genetic predisposition**



#### Description

In our bodies, calcium is a mineral that makes up our bones, as well as a salt that dissolves in our blood and regulates bodily function. At UCLA, the normal range for blood calcium level is 8.6 to 10.3 mg/dL. In order to maintain a normal calcium level, the body uses hormones to regulate blood calcium levels.

[Learn more](#)



### Cholesterol - HDL Cholesterol Levels

This result is based on **3 genetic variants** associated with "Cholesterol - HDL cholesterol levels" analyzed in the scientific paper [\(08/05/2010 - Teslovich TM\)](#)



Nutrition

#### Your results

**Average HDL cholesterol levels**



#### Description

High-density lipoprotein (HDL) cholesterol is the "good cholesterol." This amiable scavenger makes its way through the circulatory system. Removes bad cholesterol from where it doesn't belong while doing its job. Cardiovascular disease is less likely in those with higher HDL levels, while vice versa is true for those with lower HDL levels. HDL stands for high-density lipoprotein, which is a kind of cholesterol. Having high levels of cholesterol isn't always a negative thing. Cholesterol is a necessary dietary fat. Thanks to it, stability is maintained in all of your body's cells. Higher-than-average HDL cholesterol levels, measured in milligrammes per deciliter, are indicative of cardiovascular disease. HDL cholesterol levels of 60 milligrammes per deciliter (mg/dL) or above are considered high. That's excellent. HDL cholesterol levels below 40 mg/dL are considered low. That's not a good sign.

[Learn more](#)



## Cholesterol - LDL Cholesterol Levels

This result is based on **6 genetic variants** associated with "Cholesterol - LDL cholesterol levels" analyzed in the scientific paper [\(08/05/2010 - Teslovich TM\)](#)



Nutrition

### Your results

Average LDL cholesterol levels



### Description

LDL cholesterol is often known as "bad" cholesterol since it clogs your veins and raises the risk of heart disease. LDL is an abbreviation for low-density lipoproteins. An elevated LDL level indicates that you have an excess of LDL cholesterol in the blood. HDL transports LDL to your liver, where it is excreted from your body. Plaque is formed by excess LDL and other chemicals. Plaque accumulates in the arteries, causing a disease known as atherosclerosis. LDL cholesterol levels ought to be fewer than 100 milligrams per deciliter. Levels of 100 to 129 mg/dL are normal for persons without no health problems but might be of greater risk for anyone with heart problems or risk indicators for cardiovascular disease.

[Learn more](#)



## Iron Levels

This result is based on **9 genetic variants** associated with "Iron Levels" analyzed in the scientific paper [\(10/29/2014 - Benyamin B\)](#)



Nutrition

### Your results

Slightly lower genetic predisposition



### Description

Normal levels are generally between 35.5 and 44.9 percent for adult women and 38.3 to 48.6 percent for adult men. These values may change depending on your age. Hemoglobin.

[Learn more](#)



## Lead Levels

This result is based on **15 genetic variants** associated with "Lead Levels" analyzed in the scientific paper [\(07/01/2015 - Warrington NM\)](#)



Nutrition

### Your results

Slightly lower genetic predisposition



### Description

Within our bodies, lead is absorbed and stored in our bones, blood, and tissues. It does not stay there permanently, rather it is stored there as a source of continual internal exposure.

[Learn more](#)



## Long-Chain Omega Fatty Acid Levels

This result is based on **3 genetic variants** associated with "Long-chain omega fatty acid levels" analyzed in the scientific paper [\(08/30/2019 - Avallone R\)](#)



### Your results

**Slightly decrease in omega fatty acid levels**



### Description

The phospholipids that makeup cell membranes are made up of omega-3 fatty acids, which play a crucial function in the body. DHA concentration is exceptionally high in the retina, brain, and sperm. Additionally, omega-3s (together with omega-6s) generate energy for the body and make eicosanoid compounds. This class of chemicals, known as Eicosanoids, has a broad range of cardiovascular, pulmonary, immune/endocrine, and metabolic systems because of their comparable chemical structure to fatty acids. Experts have not recognized serum or plasma EPA and DHA phospholipid levels as normal. However, the average value is between 3 and 4 per cent in U.S. individuals who do not take omega-3 supplements.

[Learn more](#)



## Magnesium Levels

This result is based on **5 genetic variants** associated with "Magnesium Levels" analyzed in the scientific paper [\(05/29/2015 - Tin A\)](#)



### Your results

**Slightly higher genetic predisposition**



### Description

Normal serum magnesium concentrations range between 0.75 and 0.95 millimoles (mmol)/L. Hypomagnesemia is defined as a serum magnesium level less than 0.75 mmol/L. Magnesium homeostasis is largely controlled by the kidney, which typically excretes about 120 mg magnesium into the urine each day

[Learn more](#)



## Omega-3 (ALA) Levels

This result is based on **10 genetic variants** associated with "Omega-3 (ALA) Levels" analyzed in the scientific paper [\(2011 Jul - Lemaître RN\)](#)



### Your results

**Average genetic predisposition**



### Description

Omega-3 fatty acids, also called Omega-3 oils,  $\omega$ -3 fatty acids or n-3 fatty acids, are polyunsaturated fatty acids (PUFAs) characterized by the presence of a double bond, three atoms away from the terminal methyl group in their chemical structure. They are widely distributed in nature, being important constituents of animal lipid metabolism, and they play an important role in the human diet and in human physiology. The three types of omega-3 fatty acids involved in human physiology are  $\alpha$ -linolenic acid (ALA), found in plant oils, and eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), both commonly found in oils of marine fish. Marine algae and phytoplankton are primary sources of omega-3 fatty acids (which also accumulate in fish). Common sources of plant oils containing ALA include walnuts, edible seeds, and flaxseeds, while sources of EPA and DHA include fish and fish oils.

[Learn more](#)



## Omega-3 (DHA) Levels

This result is based on **3 genetic variants** associated with "Omega-3 (DHA) Levels" analyzed in the scientific paper [\(2011 Jul - Lemaitre RN\)](#)



Nutrition

### Your results Higher genetic predisposition



#### Description

Omega-3 fatty acids, also called Omega-3 oils,  $\omega$ -3 fatty acids or n-3 fatty acids, are polyunsaturated fatty acids (PUFAs) characterized by the presence of a double bond, three atoms away from the terminal methyl group in their chemical structure. They are widely distributed in nature, being important constituents of animal lipid metabolism, and they play an important role in the human diet and in human physiology. The three types of omega-3 fatty acids involved in human physiology are  $\alpha$ -linolenic acid (ALA), found in plant oils, and eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), both commonly found in oils of marine fish. Marine algae and phytoplankton are primary sources of omega-3 fatty acids (which also accumulate in fish). Common sources of plant oils containing ALA include walnuts, edible seeds, and flaxseeds, while sources of EPA and DHA include fish and fish oils.

[Learn more](#)



## Omega-3 (DPA) Levels

This result is based on **20 genetic variants** associated with "Omega-3 (DPA) Levels" analyzed in the scientific paper [\(2011 Jul - Lemaitre RN\)](#)



Nutrition

### Your results Slightly lower genetic predisposition



#### Description

Docosapentaenoic Acid (DPA) is a long chain omega-3 fatty acid that plays a critical role in how our bodies use EPA and DHA. It is similar to EPA, except our bodies can store twice as much in our blood because it is less actively oxidized (burned as energy). It works as both a standalone fatty acid and an intermediate essential fatty acid between EPA and DHA. DPA can be converted into either EPA or DHA, depending on what our bodies need, and vice versa. EPA, DHA, and DPA may offer important benefits individually, but our omega-3 metabolism relies on having all 3 present for best results. Known as the "Missing Omega", this fatty acid is present in human tissues and breastmilk, providing scientists with clues to its significance in overall human health. Despite this, investigations into DPA and its benefits have remained limited compared to the celebrated consumption of EPA and DHA.

[Learn more](#)



## Omega-3 (EPA) Levels

This result is based on **17 genetic variants** associated with "Omega-3 (EPA) Levels" analyzed in the scientific paper [\(2011 Jul - Lemaitre RN\)](#)



Nutrition

### Your results Slightly higher genetic predisposition



#### Description

Omega-3 fatty acids, also called Omega-3 oils,  $\omega$ -3 fatty acids or n-3 fatty acids, are polyunsaturated fatty acids (PUFAs) characterized by the presence of a double bond, three atoms away from the terminal methyl group in their chemical structure. They are widely distributed in nature, being important constituents of animal lipid metabolism, and they play an important role in the human diet and in human physiology. The three types of omega-3 fatty acids involved in human physiology are  $\alpha$ -linolenic acid (ALA), found in plant oils, and eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), both commonly found in oils of marine fish. Marine algae and phytoplankton are primary sources of omega-3 fatty acids (which also accumulate in fish). Common sources of plant oils containing ALA include walnuts, edible seeds, and flaxseeds, while sources of EPA and DHA include fish and fish oils.

[Learn more](#)





## Phosphorus Levels

This result is based on **5 genetic variants** associated with "Phosphorus Levels" analyzed in the scientific paper [\(2010 Jul - Kestenbaum B\)](#)



### Your results

**Slightly lower genetic predisposition**



### Description

The main function of phosphorus is in the formation of bones and teeth. It plays an important role in how the body uses carbohydrates and fats. It is also needed for the body to make protein for the growth, maintenance, and repair of cells and tissues.

[Learn more](#)



## Selenium Levels

This result is based on **4 genetic variants** associated with "Selenium Levels" analyzed in the scientific paper [\(05/21/2013 - Gong J\)](#)



### Your results

**Slightly lower genetic predisposition**



### Description

It is found naturally in foods or as a supplement. Selenium is an essential component of various enzymes and proteins, called selenoproteins, that help to make DNA and protect against cell damage and infections; these proteins are also involved in reproduction and the metabolism of thyroid hormones.

[Learn more](#)



## Triglyceride Levels

This result is based on **31 genetic variants** associated with "Triglyceride levels" analyzed in the scientific paper [\(06/01/2021 - Wan JY\)](#)



### Your results

**Lower genetic predisposition**



### Description

Triglycerides are a type of fat (lipid) found in your blood.

When you eat, your body converts any calories it doesn't need to use right away into triglycerides. The triglycerides are stored in your fat cells. Later, hormones release triglycerides for energy between meals.

If you regularly eat more calories than you burn, particularly from high-carbohydrate foods, you may have high triglycerides (hypertriglyceridemia).

- Normal — Less than 150 milligrams per deciliter (mg/dL), or less than 1.7 millimoles per liter (mmol/L)
- Borderline high — 150 to 199 mg/dL (1.8 to 2.2 mmol/L)
- High — 200 to 499 mg/dL (2.3 to 5.6 mmol/L)
- Very high — 500 mg/dL or above (5.7 mmol/L or above)

[Learn more](#)



## Vitamin A Levels

This result is based on **2 genetic variants** associated with "Vitamin A Levels" analyzed in the scientific paper [\(12/01/2011 - Mondul AM\)](#)



### Your results

**Slightly lower genetic predisposition**



### Description

Vitamin A is a vitamin, an essential nutrient for humans. It is a group of unsaturated organic compounds that includes retinol, retinal, (also known as retinaldehyde), retinoic acid and several provitamin A carotenoids (most notably beta-carotene). Vitamin A has multiple functions: it is important for growth and development, for the maintenance of the immune system, and essential for vision, where it combines with the protein opsin to form rhodopsin, the light-absorbing molecule necessary for both low-light (scotopic vision) and color vision.

[Learn more](#)



## Vitamin B12 Levels

This result is based on **4 genetic variants** associated with "Vitamin B12 Levels" analyzed in the scientific paper [\(07/01/2017 - Nongmaithem SS\)](#)



### Your results

**Slightly higher genetic predisposition**



### Description

Vitamin B12 is one of eight B vitamins. It is a cofactor in DNA synthesis, and in both fatty acid and amino acid metabolism. Among its many functions, Vitamin B12 aids in the production of DNA, the genetic material found in all of your cells, as well as the health of your body's blood and nerve cells. Vitamin B12 also aids to avoid megaloblastic anaemia, a blood disorder that causes fatigue and weakness in its victims. Natural sources of vitamin B12 may be found in a broad range of animal foods, as well as in certain fortified foods. The only way to get vitamin B12 from plants is via fortification. It is possible to meet your vitamin B12 needs by consuming a wide range of foods such as:

- Vitamin B12 is found in fish, meat, poultry, eggs, milk, and other dairy products.
- Vitamin B12 may be found in clams and cow liver.
- Vitamin B12 is added to several morning cereals, nutritional yeasts, and other foods.

[Learn more](#)



## Vitamin B6

This result is based on **3 genetic variants** associated with "Vitamin B6" analyzed in the scientific paper [\(2009 Apr - Tanaka T\)](#)



### Your results

**Lower levels of vitamin B6**



### Description

Vitamin B6 serves as a coenzyme in some 100 enzyme reactions in amino acid, glucose, and lipid metabolism. Pyridoxine, the chemical name for vitamin B6, is a water-soluble vitamin found in a wide variety of foods and supplements. The effect of vitamin B6 in illness control has been extensively researched. Pregnancy-induced nausea may be alleviated with a vitamin supplement, but only under the supervision of a doctor. Cancer risk may be reduced if blood levels of B6 are sufficient, contrasted to if they are insufficient. Standalone B6 supplements (as opposed to the RDA quantities in regular multivitamin formulations) are not effective and are thus not recommended for general usage in the United States. There are several sources of vitamin B6 in both animal and plant meals. Tuna, fish, and beef liver

[Learn more](#)



## Vitamin C Levels

This result is based on **10 genetic variants** associated with "Vitamin C Levels" analyzed in the scientific paper  
(2021 Jan - Zheng JS)



Nutrition

### Your results

**Slightly higher genetic predisposition**



### Description

Vitamin C is an essential nutrient involved in the repair of tissue and the enzymatic production of certain neurotransmitters. Ascorbic acid, or vitamin C, is water-soluble. Soluble in water and transported to the tissues must be ingested every day via diet or supplementation. Scurvy, which claimed the lives of up to two million seafarers between 1500 and 1800, was known to nutrition specialists long until its discovery in 1932. A potent antioxidant, vitamin C aids in the treatment of infections and the healing of wounds by scavenging potentially damaging free radicals. A daily intake of 90 mg for males and 75 mg for females is the RDA for people over 19 years. This is the highest daily amount that is unlikely to damage one's health, known as the Tolerable Upper Intake Level (TUIL). Vitamin C's U.L. is 2000 milligrammes per day.

[Learn more](#)



## Vitamin D Levels

This result is based on **3 genetic variants** associated with "Vitamin D Levels"



Nutrition

### Your results

**Lower genetic predisposition**



### Description

Vitamin D is a group of fat-soluble secosteroids responsible for increasing intestinal absorption of calcium, magnesium, and phosphate, and many other biological effects. When exposed to the sun, the human body creates vitamin D. Vitamin D may also be obtained by eating particular foods or taking vitamin D pill. Vitamin D is necessary for various reasons, not the least of which is its role in bone and tooth health. Several illnesses and ailments, including type 1 diabetes, may potentially be prevented. Prohormones or precursors of hormones are not called vitamins for anything. Vitamin D is one among them. Nutrients such as vitamins, which the body cannot produce, must be obtained from the food. The skin produces a natural source of vitamin D. This year, a meta-analysis of previous studies revealed that vitamin D might protect against influenza.

[Learn more](#)



## Vitamin E Levels

This result is based on **3 genetic variants** associated with "Vitamin E Levels" analyzed in the scientific paper  
(10/01/2011 - Major JM)



Nutrition

### Your results

**Lower genetic predisposition**



### Description

Vitamin E helps maintain healthy skin and eyes, and strengthen the body's natural defence against illness and infection (the immune system). The human body solely uses alpha-tocopherol, a fat-soluble vitamin E. Its primary function is to serve as an antioxidant, scavenging free radicals that might harm cells. It also boosts the immune system and avoids cardiac clots. In the 1980s, scientists realized that free radical damage was implicated in the early stages of artery-clogging atherosclerosis and may also contribute to cancer, eyesight loss, and other chronic illnesses. Vitamin E may prevent cells from free radical damage and inhibit free radical formation in specific settings. Inconsistent research findings have tarnished the promise of utilizing high dosage vitamin E to treat chronic illnesses.

[Learn more](#)



