

# Nutrigenomics Report

Vitamins and Minerals



Sensitivities



Fitness



More



## Fitness

- VO2max
- Muscular Strength
- Endurance
- Heart Rate
- Improved weight loss with physical activity
- Muscle soreness
- Flexibility
- Muscle repair
- Exercises effects on Blood Pressure
- Motivation to exercise
- Cardiorespiratory
- Responsiveness Exercises effects on Triglycerides
- RMR
- Risk of low bone density
- Electrolytes
- circadian disruption
- Muscle soreness

## Minerals

- Calcium
- Copper
- Iron deficiency
- Iron overload
- Magnesium
- Phosphorus
- Selenium
- Potassium
- Zinc
- Iodine
- Salt sensitivity
- Glutathione

## Vitamins

- Lycopene
- Vitamin A (carotene)
- Vitamin A (retinol)
- Vitamin B1 (Thiamine)
- Vitamin B12
- Vitamin B2 (riboflavin)
- Vitamin B3 (niacin)
- Vitamin B5 (pantothenic acid)
- Vitamin B6
- Vitamin B7 (biotin)
- Vitamin B9 (folate)
- Vitamin C
- Vitamin D
- Vitamin E
- Vitamin K
- CoQ10
- Choline

## Weight Management

- Obesity Risk
- Hunger/Fullness Regulation
- Resting Metabolic Rate (RMR)
- Mediterranean Diet
- Mood-Driven Appetite Response
- Sweet Tooth
- Difficulty losing weight
- Bitter taste Sensitivity
- Low-Carb Diet Effectiveness
- Low-fat Diet Effectiveness
- Improved weight loss with physical activity

## Macronutrients

- Protein Metabolism
- High Cholesterol Risk
- Monounsaturated Fat Benefits
- Carbohydrate Metabolism
- Fiber
- Omega 3
- Omega 6
- Saturated Fat Risk
- Fat Metabolism

## Allergies and Sensitivities

- Lactose Intolerance
- Milk allergy
- Peanut allergy
- gluten sensitivity
- Pesticide Sensitivity
- Mercury Sensitivity
- sensitivity PCB
- Phthalate Sensitivity
- PFA sensitivity

SCYLEX

**01**

**VITAMINS**



Vitamin B9, also known as folic acid or folate acid, is a water-soluble B-vitamin that plays a crucial role in various bodily functions.

Low levels of Vitamin B9 can lead to fatigue and weakness, impaired immune function and cognitive and mood disorders.



## REFERENCES

### Vitamin B9 Food Source

Good dietary sources of folic acid include leafy green vegetables, legumes, citrus fruits, and liver.

### Vitamin B9 Functions

#### HEALTHY

Folate is involved in the metabolism of homocysteine, an amino acid linked to an increased risk of heart disease when elevated in the blood. Adequate folic acid intake can help lower homocysteine levels, reducing the risk of cardiovascular problems.

#### COGNITIVE

Folate is important for brain health and proper nerve function. It is involved in the production of neurotransmitters, such as serotonin and dopamine, which play a role in mood regulation and overall mental well-being.

#### SKIN & HAIR

Folate contributes to healthy skin and hair by supporting cell regeneration and tissue repair.

#### IMMUNITY

Folate plays a role in the immune system's functioning, helping the body respond effectively to infections.

The **MTHFR** gene is known to have two common variants, or polymorphisms, that can affect the way the body processes and utilizes vitamin B6, also known as folate or folic acid.

The **MTHFR** gene produces an enzyme known as **methyltetrahydrofolate reductase (MTHFR)**, playing a crucial role in various bodily functions, including DNA synthesis, neurotransmitter production, and the regulation of homocysteine levels.

The **MTHFR** enzyme catalyzes the conversion of dietary folate and folic acid into 5-MTHF, the active form of folate.

Some individuals carry genetic variants in the **MTHFR** gene that can affect the enzyme's activity. Individuals with genetic variations in this gene may experience altered nutrient absorption, potentially elevating the risk of conditions such as depression, anxiety, and heart disease.



SNPs Low Risk

rs180133C  
rs180133A

SNPs Medium Risk

rs180133C  
rs180133A

SNPs High Risk

rs180133T  
rs180133C

## HYPERBILICIN

**Congenital:** You do not have an increased genetic predisposition to folate deficiency. This means that the baseline activity of your *SH2T3* gene is likely normal. It is important to remember that factors such as lifestyle, diet, environment, physical activity, and stress can all impact the baseline activity.

## HYPERBILICIN

You do not have the genetic risk variant for the *SH2T3* polymorphism (rs48193). The other *SH2T3* variant (rs48193, listed above), diet, environment, and lifestyle are also associated with folate status. It is still important to get adequate folate for good heart, brain, skin, and immune health.

## Recommendations

It is still important to meet your daily folate intake requirements. You are likely to achieve this through consuming a variety of folate-rich foods.

Conditions such as cardiovascular disease, depression, and certain cancers may require high folate needs. Check with your doctor if you are concerned about your folate status.

Different life stages require more folate, such as pregnancy and lactation, with 600 mcg DFE and 500 mcg DFE, respectively. Additionally, older adults and those taking medications such as methotrexate and aminoglycosides are at a higher risk of folate deficiency.