SelfDecode™

Niacinamide (Vitamin B3)

DNA Health Report

REPORT CATEGORY

NUTRITION

Sample Client

Report date: 15 January 2026

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Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

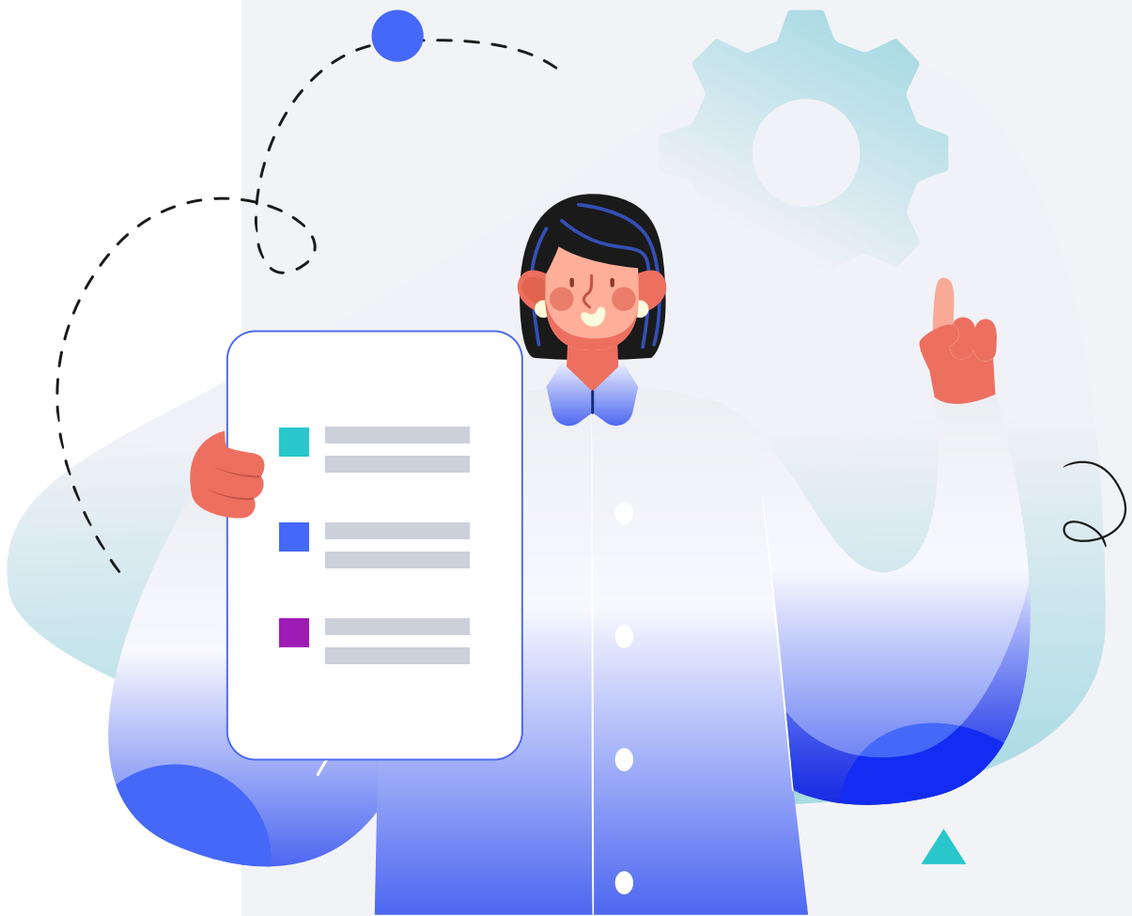
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

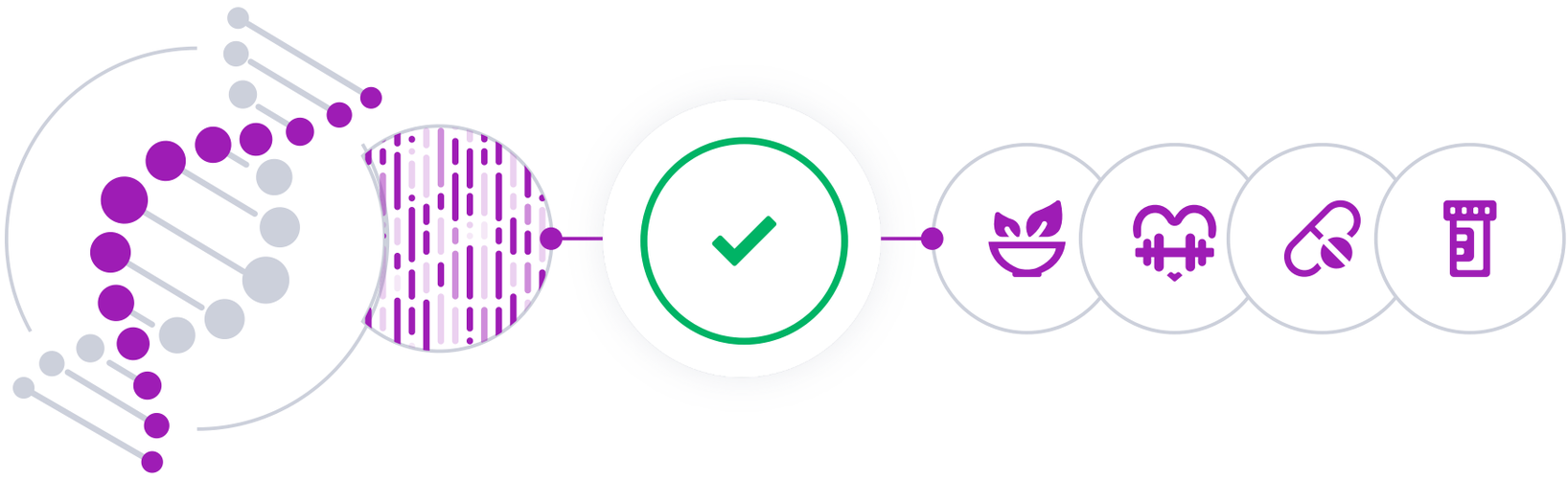


DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

How this works

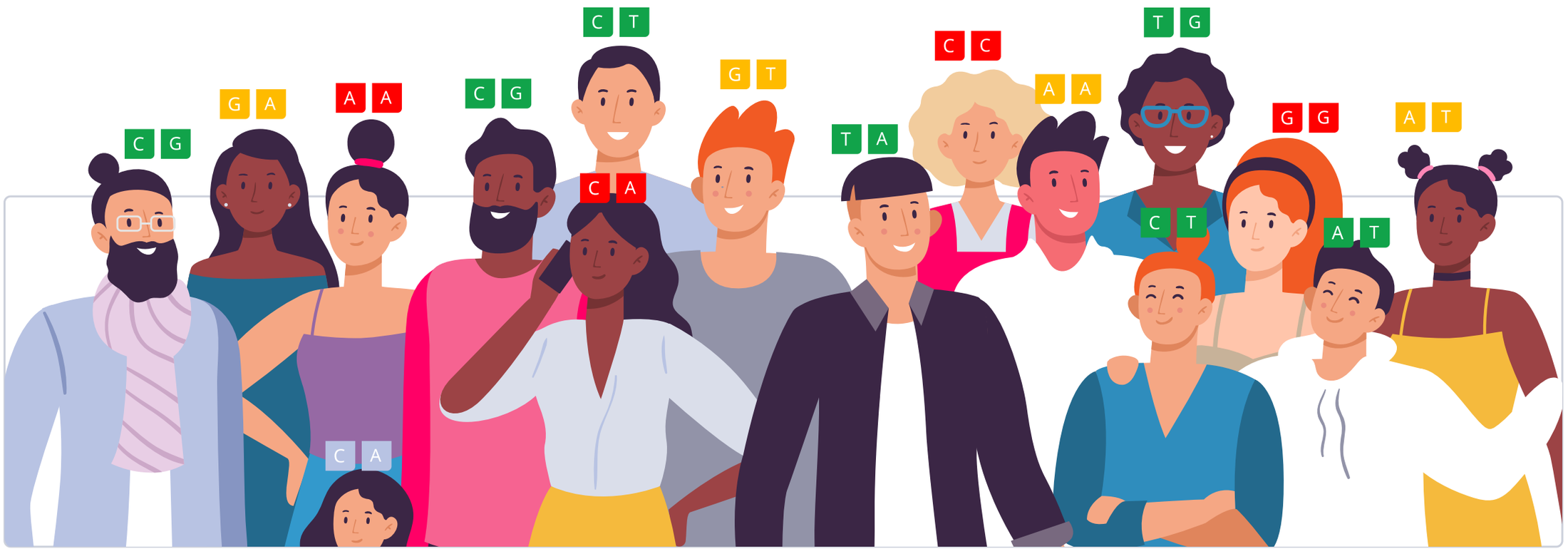
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



Similarly, our Trait Reports look at how your DNA influences your traits.

Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

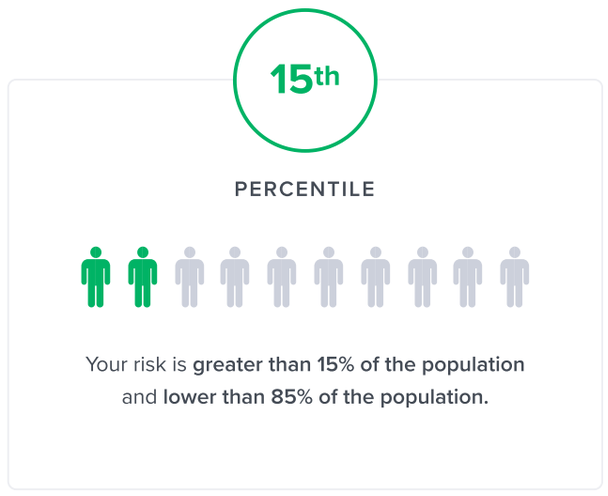
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information. We then summarize your results as a risk score or display it on a gauge.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:

In total, we analyze up to 83 million genetic variants.



Genotype color info: AA You don't have any risk alleles | AA You have 1 risk allele | AA You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:

Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):

Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

5 / 5

Recommendations that are considered effective and generally recommended by experts and medical bodies.

4 / 5

Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.

3 / 5

Recommendations that are considered possibly effective and have many studies supporting them

2 / 5

Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.

1 / 5

Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.

0 / 5

No evidence in humans.

Genotype-specific Evidence

High-quality

Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, afew large clinical trials, or a meta-analysis).

Medium-quality

Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).

Low-quality

Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).

Indirect

A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).

In theory

A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Niacinamide is one of two forms of **vitamin B3 (niacin)**, the other one being nicotinic acid. Vitamin B3 supports your nervous system, skin, gut, and more [R].

Most adults should get **14-16 mg** of niacinamide a day. That's roughly the amount available in [R, R]:

- 3 ounces of beef liver
- 5 ounces of chicken or turkey
- 6 ounces of canned tuna
- 3 cups of brown rice

Most people get enough niacinamide from their diets.

Topical niacinamide may help with skin problems, such as:

- Acne [R, R, R]
- Eczema [R]
- Rosacea [R, R]
- Seborrheic dermatitis [R]
- Psoriasis [R]
- Skin aging [R, R, R]
- Melasma [R]

It can also be taken orally for:

- Acne [R]
- Pellagra [R]
- Skin cancer prevention [R, R]
- Diabetes [R]
- Osteoarthritis [R]
- Reducing high phosphate levels in people with kidney disease [R]

Please note: *Higher doses of niacin have been linked to liver damage and insulin resistance. They may also cause low platelet count, nausea, vomiting, cramps, and diarrhea. Talk to your doctor before taking niacinamide* [R, R, R, R, R, R, R, R].

Factors Affecting Niacinamide Levels

Diet is by far the most important factor influencing niacinamide levels. The body can also convert niacin from the diet into niacinamide. Vegetarians and vegans might need to pay more attention to their niacinamide intake, as plant-based sources may be less bioavailable compared to animal sources.

Other factors influencing niacinamide levels include:

- Health conditions: Conditions like chronic liver disease, inflammatory bowel disease, or other disorders affecting nutrient absorption can lead to lower niacinamide levels. Hartnup disease, a rare genetic disorder, affects the absorption of tryptophan, a precursor of niacinamide, leading to deficiency.
- Age: Niacinamide absorption may decrease as we age.
- Physiological status: Pregnancy and breastfeeding increase the body's requirements for niacinamide.
- Alcohol consumption: Excessive alcohol intake can impair the absorption and metabolism of niacinamide, leading to reduced levels.
- Medications: Long-term use of certain antibiotics and anticonvulsants has been associated with lower niacinamide levels.
- Genetics: Variants at certain genes can affect how the body processes vitamin B3, influencing niacinamide levels.

TYPICAL NEED

Likely typical niacinamide needs based on 11,120 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
SEPTIN8	rs13354173	CC
SLITRK1	rs181673553	AA

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You'll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

		DOSAGE
1	Chicken	
2	Beef liver	
3	Beef	
4	Tuna	
5	Sunflower Seeds	
6	Brown rice	
7	Pork	
8	Potatoes	
9	Green Peas	
10	Salmon	
11	Nicotinamide Riboside (NR)	250 mg
12	Mushrooms	
13	Niacin Supplements	20 mg
14	Turkey	
15	Chicken Liver	
16	B Vitamins	

1 Chicken

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate chicken into your meals 2-3 times a week, preferably opting for lean cuts like breast meat. Cook it through methods such as grilling, baking, or boiling to avoid adding excess fats. Aim for a portion size of about 3-4 ounces (85-113 grams) per serving.

Description

Chicken is a lean source of protein and essential nutrients like vitamin B12 and selenium. It can be a healthy part of a balanced diet that supports muscle growth and overall nutritional well-being.

Chicken and particularly dark meat like the thigh, is a good source of omega-6s that also contains protein, vitamins, and even needed trace minerals like selenium. One chicken thigh contains 3792 mg of omega-6.

How it helps

Chicken is a rich source of niacin, also known as Vitamin B3, which plays a key role in converting food into energy and keeps your cells functioning properly. Incorporating chicken into your diet can therefore help prevent a deficiency of this essential vitamin.

2 Beef liver

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate beef liver into your diet 1-2 times per week, aiming for a serving size of about 3-4 ounces (85-113 grams) each time. This can be pan-fried, baked, or incorporated into dishes like stews or pate to make it more palatable.

Description

Beef liver is a commonly recommended organ meat due to its rich content of protein, B-vitamins, and minerals.

Chickpeas are a good source of vitamin B6, iron, folate, fiber, and rich in minerals like copper, zinc, and phosphorus. A ½ cup serving provides 1.1 mg of vitamin B6 or 65%DV.

How it helps

Beef liver is high in niacin (Vitamin B3), a vital nutrient that your body uses to build NAD, a molecule that helps your cells generate energy. So, including beef liver in your diet can ensure plentiful niacin intake and thus ward off deficiency-related conditions like pellagra.

3

Beef

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate lean beef into your diet 2-3 times per week, with a serving size of about 3-4 ounces (85-113 grams) per meal. Choose cuts like sirloin or round to minimize saturated fat intake.

Description

Beef is a rich source of high-quality protein, essential vitamins, and minerals like iron and zinc. Incorporating lean cuts of beef into a balanced diet can support muscle growth, overall nutrition, and iron intake.

Beef is an excellent source of many B-vitamins, protein, proline, and minerals like zinc and iron. Grass-fed uncharred beef is healthiest. Beef contains 34.82 mg of proline per gram.

How it helps

Consuming beef helps with Niacin (vitamin B3) deficiency as it is rich in B3, which is essential for converting food into energy in your body. Regular inclusion of beef in your diet can therefore prevent this deficiency.

4

Tuna

IMPACT 2 / 5

EVIDENCE 1 / 5

How to implement

Incorporate tuna into your meals 2-3 times per week, aiming for a serving size of about 3.5 ounces (100 grams) per meal. Choose fresh or water-packed tuna instead of oil-packed to reduce unnecessary calorie intake.

Description

Tuna is a type of saltwater fish commonly consumed worldwide, rich in lean protein, omega-3 fatty acids, and essential vitamins and minerals. Its health benefits include heart health support, improved brain function, and reduced inflammation. Tuna is often included in diets for conditions like cardiovascular disease prevention and cognitive enhancement.

Tuna is a source of niacin, vitamin D, as well as being a very good source of protein and omega-3 fatty acids. A 3-ounce serving has 8.6 mg of niacin or 54%DV.

How it helps

Tuna is high in niacin (Vitamin B3), which is essential for your body to convert food into usable energy. Regular consumption of tuna can therefore help prevent a niacin deficiency and its associated health problems.

5

Sunflower Seeds

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a small handful of sunflower seeds (about 1 ounce or 28 grams) into your daily diet. You can eat them alone as a snack, sprinkle them on salads, or add them to homemade bread or muffins. Ensure they are unsalted to keep your sodium intake in check.

Description

Sunflower seeds are nutrient-dense plant-based snacks high in protein, healthy fats, fiber, and essential minerals like magnesium and selenium. They are associated with promoting heart health, supporting digestion, and providing energy.

Sunflower seeds are a great source of biotin, protein and antioxidants, minerals like zinc and selenium, and vitamins E and B6. A ¼ cup serving provides 2.6 mcg of biotin or 9%DV.

How it helps

Sunflower seeds are packed with niacin (vitamin B3), which is essential for energy production and brain health. Consuming them regularly can help maintain niacin levels, thus preventing deficiencies that could lead to conditions like pellagra.

6

Brown rice

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Replace white rice with brown rice in your meals. Aim to consume brown rice 3-4 times a week, incorporating it into dishes such as stir-fries, salads, or as a side to your main protein source. Start with a serving size of about 1/2 to 1 cup of cooked brown rice per meal.

Description

Brown rice is a whole grain rich in fiber, vitamins, and minerals. It provides sustained energy, supports digestive health, and contributes to overall nutritional well-being.

Brown rice contains a host of B-vitamins including thiamine, and minerals like magnesium, phosphorus, manganese, and selenium. A ½ cup serving provides 0.1 mg of thiamine or 8%DV.

How it helps

Brown rice is rich in niacin, a type of vitamin B3, which helps your body convert food into energy and supports healthy skin, nerves, and digestion. Regularly consuming brown rice could therefore help provide your body with sufficient niacin, preventing a deficiency.

7

Pork

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate lean cuts of pork, such as tenderloin or loin chop, into your diet 2-3 times per week, aiming for a portion size of about 3-4 ounces (85-113 grams) per meal. Cook it using healthy methods like grilling, baking, or broiling to minimize added fats.

Description

Pork is a meat obtained from pigs, and is a great source of zinc, protein, and iron, as well as leucine, selenium, phosphorus, and B-vitamins.

Pork is a good source of protein, chromium, selenium, phosphorus, zinc, and potassium. A 3-ounce serving provides 3.6 mcg of chromium or 10%DV.

How it helps

Pork, especially pork liver, is a rich source of niacin (Vitamin B3) which is essential for energy production and healthy nerve function in the body. A niacin-rich diet can thus prevent deficiencies, leading to conditions like Pellagra, characterized by diarrhea, dementia, and dermatitis.

8

Potatoes

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate potatoes into your diet 2-3 times per week, either baked, boiled, or steamed, avoiding deep-frying to minimize unhealthy fats. Aim for portion sizes of about a half to a whole medium-sized potato per serving.

Description

Potatoes are a starchy root vegetable rich in carbohydrates, molybdenum, iron, fiber, vitamin C, manganese and potassium. They provide sustained energy, and promote digestive regularity.

Potatoes are a good source for choline, as well as vitamins and minerals (mostly in the skin), including iron, vitamins C and B6, potassium, manganese, and niacin. One medium potato provides 57 mcg of choline or 10%DV.

How it helps

Potatoes are rich in niacin (Vitamin B3) which plays an essential role in the functioning of the digestive system, skin, and nerves. Consuming potatoes can help maintain adequate levels of Vitamin B3 in the body, preventing niacin deficiency and related disorders.

9

Green Peas

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a half cup of cooked or raw green peas into your diet at least three times a week. This can be as a side dish, added to salads, soups, or pasta dishes.

Description

Green peas are a nutritious vegetable packed with vitamins, fiber, and antioxidants. Including green peas in your diet can support digestive health, provide essential nutrients, and contribute to overall well-being.

Green peas are a good source of folate, manganese, iron, vitamins C , K, and A, fiber, as well as antioxidants. A ½ cup serving provides 47 mcg of folate or 12%DV.

How it helps

Green peas provide a decent amount of niacin, which is necessary for the proper functioning of the digestive system.

10

Salmon

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate at least two servings of salmon into your weekly diet, aiming for each serving to be about 3.5 ounces (100 grams), cooked. Choose wild-caught salmon when possible for higher omega-3 content.

Description

Salmon is a nutrient-rich fish known for its high content of omega-3 fatty acids, which can support heart health and reduce inflammation. It's also an excellent source of protein, vitamin D, and various minerals.

How it helps

Salmon is rich in niacin. Regular consumption can aid in preventing a deficiency that may lead to conditions like pellagra.

11

Nicotinamide Riboside (NR)

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take 250-300 mg of Nicotinamide Riboside (NR) supplement daily, with or without food. It can be taken any time of the day, but maintaining a consistent routine, such as taking it every morning, is advised for best results. Continue this regimen daily for an ongoing basis to support cellular health and energy levels.

TYPICAL STARTING DOSE

250 mg

Description

Nicotinamide riboside is a form of vitamin B3 that is used in dietary supplements. It is believed to support cellular energy metabolism and may have potential benefits for overall health, including cognitive function and mitochondrial function.

How it helps

Similar to NMN, Nicotinamide Riboside is converted to NAD+ in the body, possibly increasing niacin levels and supporting energy metabolism.

12

Mushrooms

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate a variety of mushrooms such as shiitake, button, portobello, and oyster into your diet. Aim for at least 100-150 grams (roughly one cup) of fresh mushrooms or 15-20 grams of dried mushrooms, 2-3 times per week. You can add them to salads, soups, sandwiches, or sauté them as a side dish.

Description

Mushrooms are fungi rich in nutrients like B vitamins and copper, and bioactive compounds. They are used in various cuisines and have been associated with potential health benefits, including immune support and antioxidant properties.

How it helps

Certain mushrooms, especially crimini, are a good source of niacin. This vitamin is crucial for skin health.

13

Niacin Supplements

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Take a 20 mg niacin supplement daily, preferably with a meal to aid in absorption and minimize potential stomach upset.

TYPICAL STARTING DOSE

20 mg

Description

Niacin is an essential B vitamin that plays a vital role in metabolism, supporting heart health, maintaining healthy cholesterol levels, and promoting overall cellular function when included in a balanced diet or as a supplement.

Niacin (vitamin B3) is found in many foods. It supports your nervous system, skin, gut, and more [R].

Adults should get **16 mg** of niacin a day, and most people get enough from their diets [R].

Experts recommend getting niacin from food rather than supplements [R, R].

How it helps

Niacin increases the levels of good cholesterol and lowers triglycerides, fats that can lead to heart disease. This can prevent a Niacin deficiency, which can cause symptoms like indigestion, fatigue, and skin issues.

14

Turkey

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate turkey into your diet 2-3 times per week, choosing lean cuts like turkey breast. Aim for portions about the size of a deck of cards (3-4 ounces) for each serving.

Description

Turkey is a poultry meat known for its lean protein content and is a good source of nutrients like selenium and B vitamins. It is valued for its health benefits, including muscle growth, immune support, and stress reduction due to its content of tryptophan, which is a precursor to serotonin.

Turkey is a good source of zine, and rich in B-vitamins, minerals like selenium and phosphorus, and protein. A 3-ounce serving provides 1.5 mg of zinc or 14%DV.

How it helps

Turkey is rich in Niacin (Vitamin B3), an essential nutrient that aids in converting food into energy and helps with the functioning of the digestive system, skin, and nerves. Regularly consuming turkey can therefore provide a natural source of this vitamin, helping prevent a deficiency.

15

Chicken Liver

IMPACT 1 / 5

EVIDENCE 1 / 5

How to implement

Incorporate chicken liver into your meals 1-2 times per week, aiming for portions of about 100 grams (3.5 ounces) per serving. You can cook it by pan-frying, baking, or incorporating it into dishes like pâtés or spreads.

Description

Chicken liver is a nutrient-dense food that is rich in iron, vitamin A, and other essential nutrients. It can be a valuable addition to the diet to support healthy blood and overall nutritional health.

How it helps

Chicken liver is a rich source of niacin, making it beneficial for anyone looking to increase their dietary intake.

16

B Vitamins

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take a B vitamin complex supplement once daily, preferably with your morning meal to enhance absorption. The supplement should include a range of B vitamins such as B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folate), and B12 (cobalamin). Ensure consistency by taking it at the same time each day.

Description

B vitamins help the body function properly. Two examples are **vitamin B9** (**folate**) and **vitamin B12**. They play essential roles in [R, R, R, R]:

- DNA formation
- Metabolism
- Energy production

You can get these vitamins from [R, R, R, R, R]:

- Animal products
- Green leafy vegetables
- Citrus fruits
- Fortified foods
- Supplements

Adults should be getting **400 micrograms (mcg) of folate** and **2.4 mcg of vitamin B12** every day [R, R].

Folate deficiency is rare but can happen in people that don't eat enough fruits and vegetables. Alcoholics and lactating mothers may also be at an increased risk [R].

Vitamin B12 deficiency often takes years to develop, as the body is able to store large amounts in the liver. Groups that may be at an increased risk include [R, R]:

- Vegans
- Pregnant women
- Older people
- People with gut issues

How it helps

B Vitamins often work synergistically, and taking a balanced B complex can enhance the benefits of niacinamide (vitamin B3) in supporting overall health and energy levels.

Next Steps

Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.