SelfDecode™

Hypoparathyroidism

Disease Report

REPORT CATEGORY

THYROID

Sample Client

Report date: 15 January 2026

Powered by omicsedge

Table of Contents

Personal information

NAME

Sample Client

SEX AT BIRTH

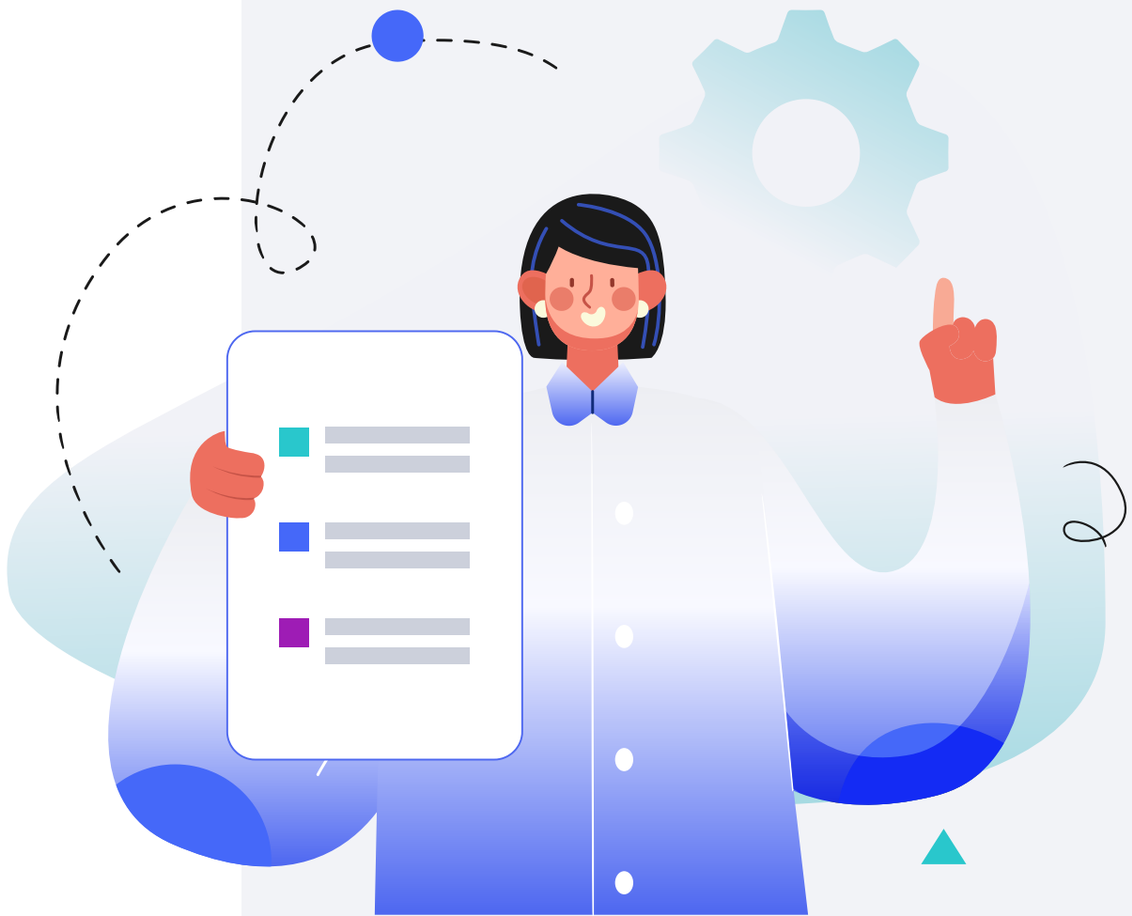
Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

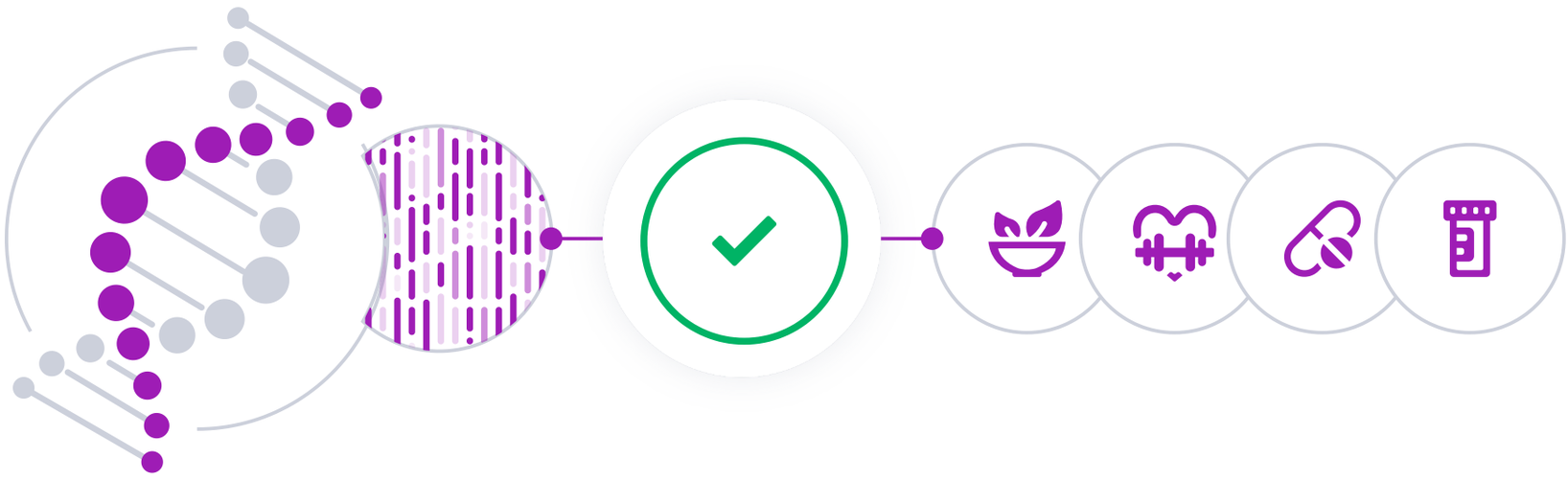


DISCLAIMER

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

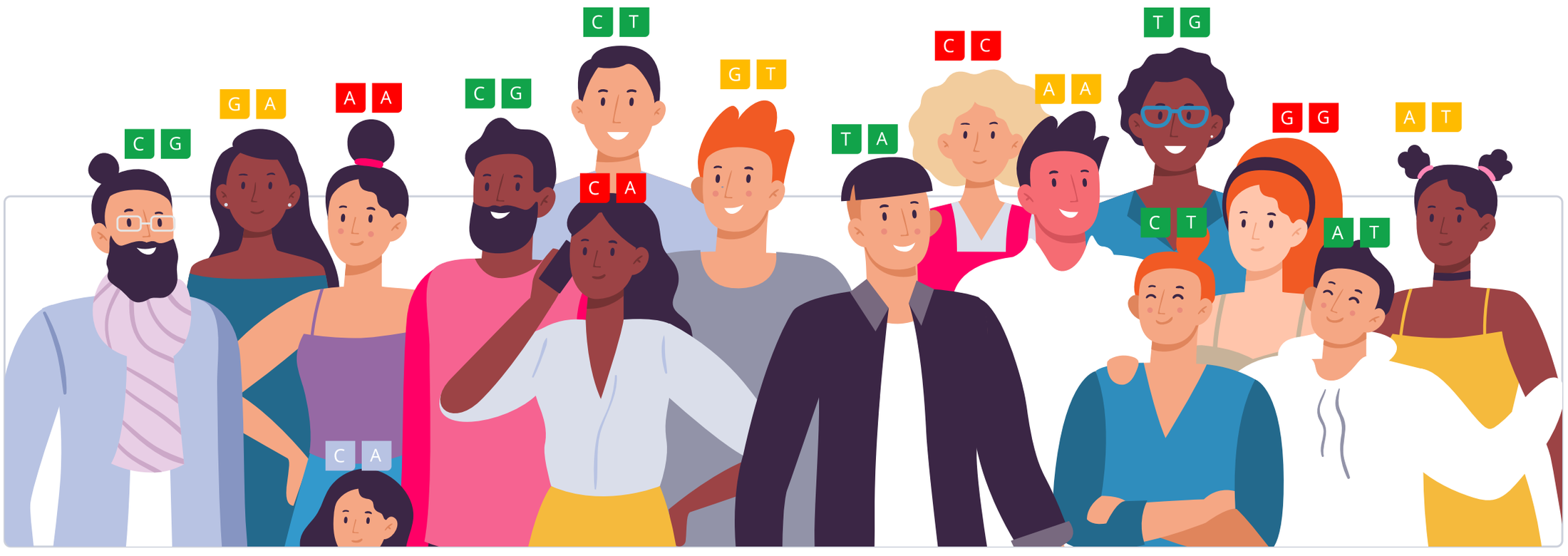
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



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.

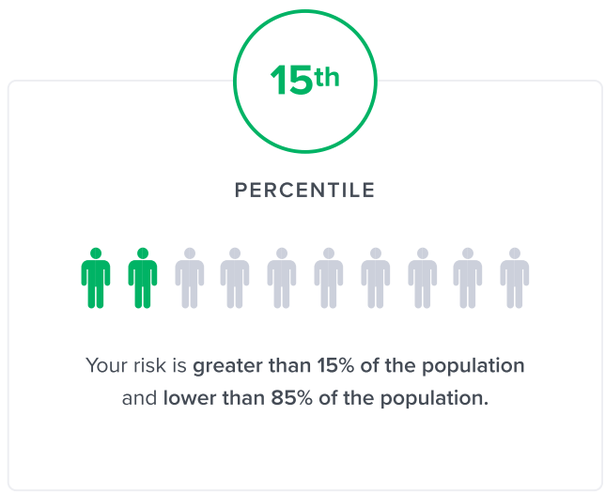
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



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

Hypoparathyroidism is a disorder characterized by insufficient production of parathyroid hormone (PTH) by the parathyroid glands located in the neck. PTH plays a crucial role in regulating and maintaining a balance of the body's calcium and phosphorus levels.

When PTH levels are too low, calcium levels in the blood decrease (hypocalcemia) and phosphorus levels increase, which can lead to a variety of symptoms such as muscle cramps, tingling in the fingertips, toes, and lips, and general muscle aches and pains. If left untreated, hypoparathyroidism can result in severe complications such as cataracts, inappropriate calcifications within the brain, or dental problems.

Management

The condition can be congenital or acquired; the latter often following surgical procedures that inadvertently damage or remove the parathyroid glands, such as thyroidectomy. Management of hypoparathyroidism typically involves calcium and vitamin D supplementation to normalize calcium levels and prevent symptoms.

Some patients may require long-term treatment and monitoring of their calcium and phosphorus levels to maintain a good quality of life. The introduction of recombinant PTH treatments offers a more physiologic approach to management, though their use remains relatively limited due to cost and the need for daily injections.

MORE LIKELY

More likely to have hypoparathyroidism based on 24,224 genetic variants we looked at

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	Calcium Supplements	1000 mg
2	Maintain Optimal Vitamin D Levels	1000 iu
3	Dietary Calcium	
4	Avoid Processed High Phosphate Foods	
5	Magnesium	350 mg
6	Vitamin D and Calcium	
7	Dairy Products	
8	Avoid Rapid Weight Changes	
9	Salmon	
10	Sardines	
11	Leafy Green Vegetables	

1

Calcium Supplements

IMPACT 4 / 5

EVIDENCE 4 / 5

How to implement

Take 500-600 mg of calcium supplement twice daily with food. For best absorption, do not exceed 600 mg at one time and ensure a total daily intake of 1000-1200 mg from all sources, including diet. Continue indefinitely for ongoing support of bone health.

TYPICAL STARTING DOSE

1000 mg

Description

Calcium supplements are commonly used to support bone health and prevent conditions like osteoporosis. Adequate calcium intake is essential for maintaining strong bones and teeth.

Calcium is the most abundant mineral in the human body. It is vital for the bones, heart, muscles, and nervous system [R].

Your body gets calcium from food and needs vitamin D to help absorb it. Calcium can be found in a variety of foods, including [R]:

- Dairy products
- Green, leafy vegetables
- Fish with edible soft bones (e.g., sardines)
- Calcium-fortified foods and beverages

How it helps

PTH controls blood calcium and phosphorus levels. Low PTH leads to abnormally low blood calcium levels, especially in older subjects [R, R].

In line with this, experts recommend giving calcium supplements to virtually all hypoparathyroidism patients, especially if combined with vitamin D, to restore normal calcium levels. Successfully tested forms include [R, R, R, R]:

- Calcium carbonate
- Calcium citrate

Drinking high-calcium mineral water may also help [R].

However, synthetic PTH may be more effective [R].

Please note: *calcium competes with iron for absorption in the intestines, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using calcium supplements.*

2

Maintain Optimal Vitamin D Levels

IMPACT 3 / 5

EVIDENCE 4 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE

1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs vitamin D for strong bones. Vitamin D also plays a role in [R]:

- Mood
- Immunity
- Heart health
- Blood sugar control

Sunlight is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [R, R].

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [R].

How it helps

Having low vitamin D levels may increase the risk of low PTH levels after the surgical removal of the thyroid gland [R].

Experts recommend high doses of vitamin D, typically in the form of calcitriol, to help the body absorb calcium and eliminate phosphorus. Its combination with calcium supplements may further increase the effectiveness of these supplements [R, R, R].

Alfacalcidiol may also help restore normal calcium, phosphorus, and vitamin D levels. However, it didn't correct vitamin D deficiency in a study [R, R, R].

3

Dietary Calcium

IMPACT 3 / 5

EVIDENCE 3 / 5

How to implement

Consume 1,000-1,200 mg of calcium daily through dietary sources such as dairy products (milk, yogurt, cheese), green leafy vegetables (kale, broccoli), and fortified foods (orange juice, plant-based milks). Adults under 50 need 1,000 mg per day, while those over 50 should aim for 1,200 mg per day.

Description

Dietary calcium is a mineral found in dairy products, leafy greens, and fortified foods. It is essential for bone health, muscle function, and nerve transmission.

Calcium is the most abundant mineral in the human body. It is vital for the bones, heart, muscles, and nervous system [R].

Your body gets calcium from food and needs vitamin D to help absorb it. Calcium can be found in a variety of foods, including [R]:

- Dairy products
- Green, leafy vegetables
- Fish with edible soft bones (e.g., sardines)
- Calcium-fortified foods and beverages

How it helps

PTH controls blood calcium and phosphorus levels. Low PTH leads to abnormally low blood calcium levels, especially in older subjects [R, R].

In line with this, experts recommend increasing dietary calcium to help correct the blood levels of this mineral in people with hypoparathyroidism. For instance, a study of 67 patients with chronic hypoparathyroidism found that consuming 1,000-1,200 mg of calcium per day helped control hypocalcemia [R, R].

4

Avoid Processed High Phosphate Foods

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

To follow this recommendation, remove or significantly reduce processed foods such as sodas, packaged snacks, processed meats, and canned foods from your daily diet. Instead, opt for fresh fruits, vegetables, whole grains, and lean proteins. It's helpful to read nutrition labels, aiming to keep your daily phosphate intake below 700 mg if possible.

Description

Processed foods often have high levels of phosphate. These include fast foods and soda. Extra phosphate can make bones brittle and damage your blood vessels over time. So, it's healthier to choose fresh foods over processed ones.

How it helps

PTH controls blood calcium and phosphorus levels. Low PTH leads to abnormally high blood phosphorus levels [R].

In line with this, some experts recommend limiting high-phosphorus foods to restore normal blood levels of this element in people with hypoparathyroidism. This means avoiding carbonated soft drinks, which contain phosphorus in the form of phosphoric acid, and limiting processed foods, meats, hard cheeses, nuts, and whole grains [R].

5

Magnesium

IMPACT 2 / 5

EVIDENCE 3 / 5

How to implement

Take up to 350 mg of magnesium daily as a supplement, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

350 mg

Description

Magnesium is an essential mineral involved in various bodily functions, including muscle contractions, nerve signaling, and bone health. Maintaining adequate magnesium levels through diet or supplements can support overall well-being and reduce the risk of magnesium deficiency-related health issues.

Magnesium is an essential mineral. Your body needs it for [R, R, R]:

- Muscle, nerve, and bone function
- Blood sugar and blood pressure control
- DNA and protein production
- Strong immunity

Women need **310-320 mg** of magnesium per day, while men need **400-420 mg** [R].

Foods rich in magnesium include **nuts, seeds, and leafy greens**. Magnesium is also available as a supplement [R].

How it helps

The parathyroid glands require sufficient magnesium levels to function properly. Some experts recommend taking magnesium supplements to restore normal levels and reduce hypoparathyroidism symptoms [R].

However, magnesium supplements may not help with low calcium levels [R, R].

6

Vitamin D and Calcium

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Take 600 IU of vitamin D and 1000 mg of calcium daily. For adults over 70 years, the vitamin D intake should be increased to 800 IU daily. These supplements can be taken together or separately, usually with a meal to enhance absorption, and it is advisable to continue this regimen as part of your daily routine indefinitely unless advised otherwise by a healthcare provider.

Description

Vitamin D plus calcium supplements typically combine vitamin D, often sourced from sunlight exposure or dietary sources, with calcium, primarily found in dairy products and leafy greens. This combination is used to promote bone health, reduce the risk of osteoporosis, and support overall musculoskeletal well-being.

How it helps

Vitamin D helps in the absorption of calcium from the gut, while calcium is essential for the proper functioning of the parathyroid glands. Adequate levels of both can help in the regulation of parathyroid hormone (PTH) levels.

7

Dairy Products

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate 2-3 servings of low-fat or fat-free dairy products into your daily diet. One serving could be 8 ounces of milk, 1 cup of yogurt, or 1.5 ounces of cheese. Choose options that are low in added sugars and consume as part of balanced meals or snacks throughout the day.

Description

Dairy products, such as milk, yogurt, and cheese, are rich sources of calcium and protein. They are essential for bone health, providing nutrients that support strong bones and teeth, as well as overall nutritional well-being.

Dairy products are made from milk. They include [R]:

- Cheese
- Yogurt
- Kefir
- Butter
- Cream

Dairy products contain high levels of calcium. Calcium helps build strong bones [R].

How it helps

Dairy products are rich in calcium, which can help increase PTH levels as the parathyroid glands respond to low calcium levels by releasing more PTH.

8

Avoid Rapid Weight Changes

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Maintain a consistent, healthy weight by avoiding extreme dieting or sudden increases in food intake. Aim for gradual weight changes, not exceeding 1-2 pounds per week, by adjusting your diet and physical activity levels accordingly. This approach should be sustained over a long-term period to ensure health and prevent potential adverse effects on the body.

Description

Avoiding extreme and rapid weight changes, whether through crash diets or excessive calorie restriction, is essential for preventing negative health consequences such as nutritional deficiencies and metabolic disruptions.

Your weight is determined by the number of calories you consume compared to those you burn. Changes in exercise frequency, amount and type of food consumed, and alcohol intake may alter your energy expenditure. This may cause small weight fluctuations [R].

Some people may gain or lose weight at a faster rate. Rapid weight fluctuations may be due to [R, R]:

- Very drastic diets
- Water retention or dehydration
- Hormonal changes
- Pregnancy
- Taking certain medications
- Certain health conditions

How it helps

For people with hypoparathyroidism, maintaining a stable weight can help minimize fluctuations in calcium levels. Rapid weight changes can disrupt calcium and phosphorus balance, crucial for managing this condition.

9

Salmon

IMPACT 0 / 5

EVIDENCE 0 / 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 high in vitamin D, which aids in calcium absorption and can help maintain appropriate levels of PTH in the body.

10

Sardines

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate two to three servings of sardines into your diet each week. You can eat them grilled, steamed, or straight from the can as part of salads, sandwiches, or as a snack. Each serving should be about 3.5 ounces (100 grams), which is roughly one can of sardines.

Description

Sardines are small, oily fish known for their rich content of omega-3 fatty acids, calcium, B12, and vitamin D. Consuming sardines can support heart health, bone strength, and provide essential nutrients, and they are typically found in coastal waters.

Sardines are a good source of iron, omega-3 fatty acids, and a host of vitamins and minerals including calcium, iron, and vitamin D. A 2-sardine serving provides 2 mg of iron or 11%DV.

How it helps

Sardines are rich in both calcium and vitamin D, making them beneficial for improving calcium metabolism and supporting normal PTH levels.

11

Leafy Green Vegetables

IMPACT 0 / 5

EVIDENCE 0 / 5

How to implement

Incorporate at least one serving of leafy green vegetables, such as spinach, kale, or Swiss chard, into your diet daily. This can be done by adding them to salads, smoothies, or as a side dish to your meals.

Description

Leafy green vegetables like spinach and kale are packed with vitamins, minerals, and antioxidants. Incorporating them into your diet can promote overall health by providing essential nutrients, supporting digestion, and reducing the risk of chronic diseases like heart disease and certain cancers.

Leafy green vegetables, also called leafy greens, or greens, are edible plant leaves, which can include stalks and shoots as well. Common examples include: lettuce, spinach, kale, chard, endive, and fennel.

Leafy greens contain a host of vitamins and minerals, as well as fiber. Most of them are a particularly good source of vitamin K.

How it helps

Leafy green vegetables are high in calcium and magnesium, both of which can influence PTH levels. Increased intake of these minerals can help stabilize and potentially increase PTH secretion.

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.

Phosphorus	2 mg/dL	1 2.5 3.5 4.5	9 Nov 2025
Calcium, Ionized	1.1 mmol/L	1.2 1.4	9 Nov 2025
Vitamin D, 25-Hydroxy, Total	58.59 ng/mL	10 20 30 75 150	9 Nov 2025