

Retinitis Pigmentosa

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

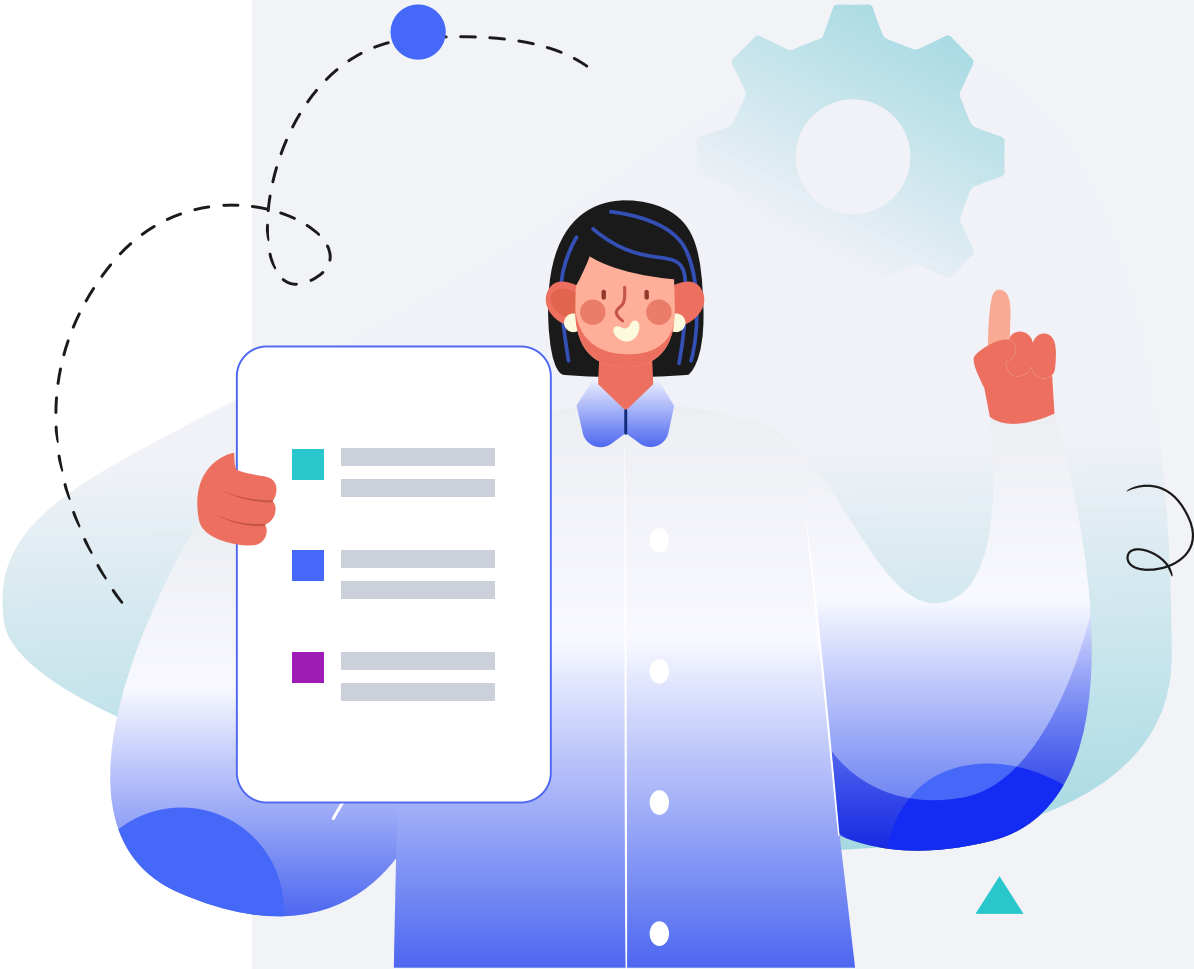
5ft 5" 165cm

WEIGHT

137lb 62kg

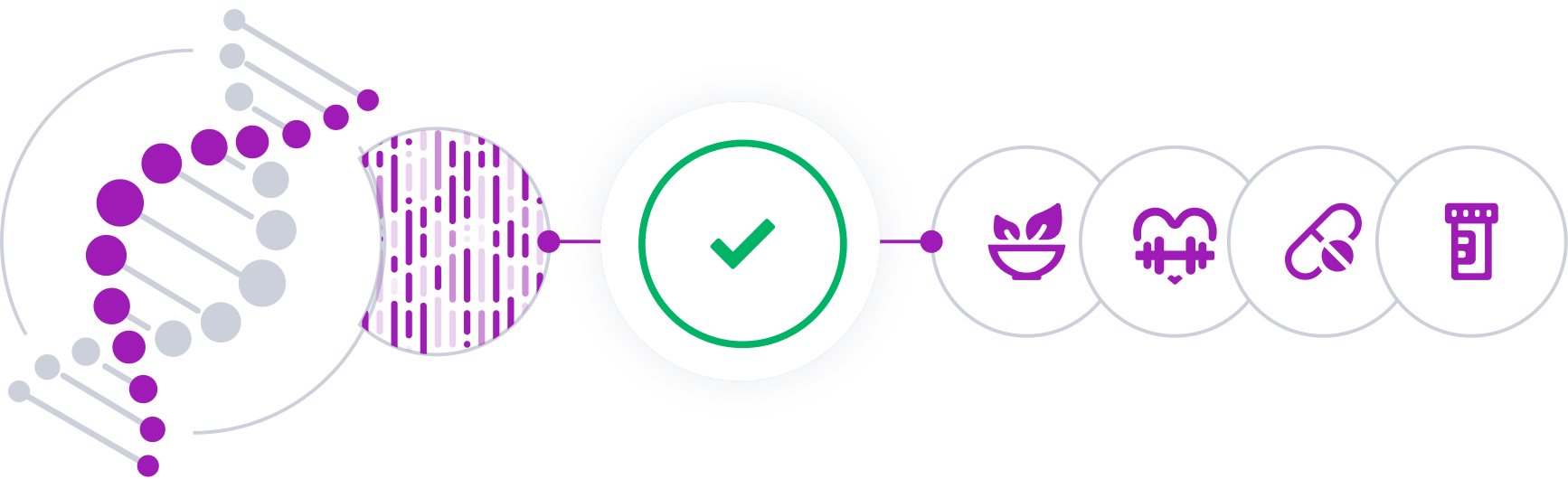
DISCLAIMER

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.

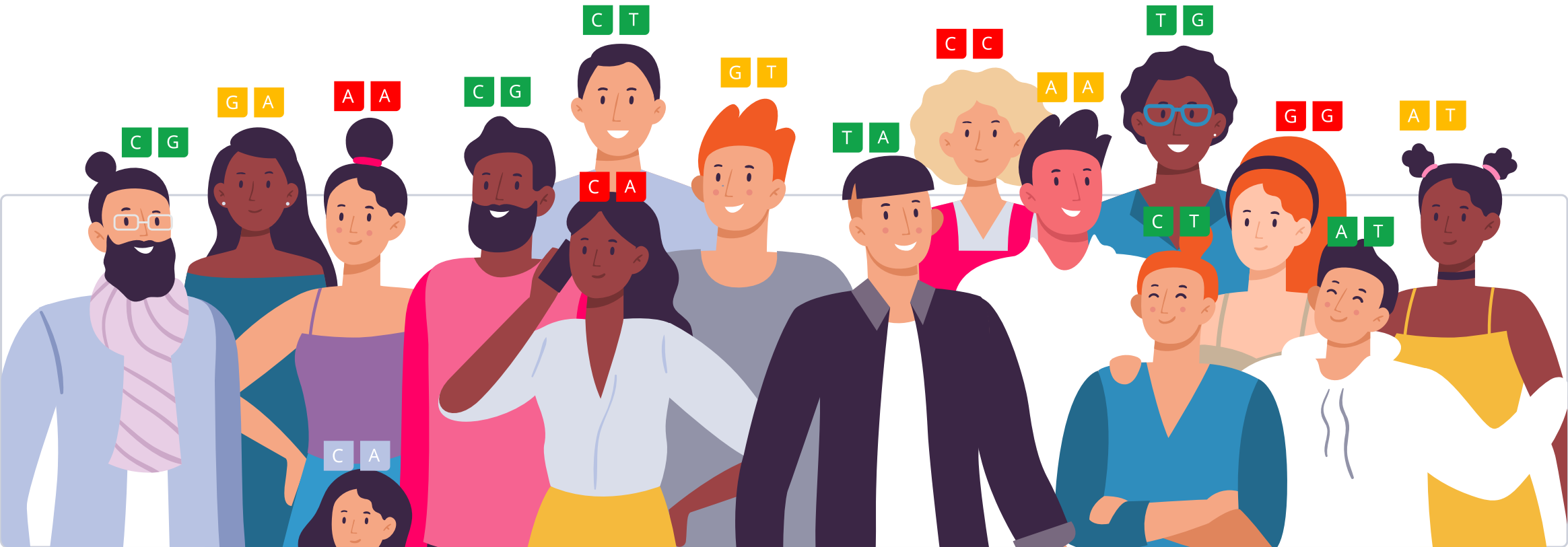


Similarly, our Trait Reports look at how your DNA influences your traits.



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.

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

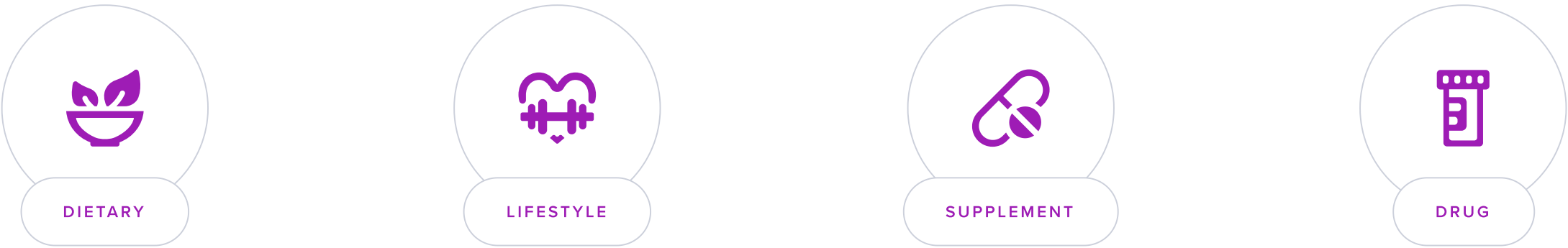
You have 2 risk alleles

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, a few 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

Retinitis pigmentosa (RP) is a group of inherited disorders that cause progressive peripheral vision loss and difficulty with night vision, as the condition primarily affects the rod cells in the retina which are responsible for vision in low light conditions. As RP progresses, patients may experience a phenomenon known as 'tunnel vision', where their field of vision narrows significantly, like looking through a straw.

Over time, RP may also affect central vision, which is needed for detailed tasks such as reading and recognizing faces.

Symptoms and Management

Symptoms of retinitis pigmentosa often first appear in childhood to young adulthood, but the severity and progression can vary widely even among members of the same family. There is currently no cure for RP, but research in gene therapy, retinal implants, and other treatments offers hope for future interventions.

In the meantime, patients can use aids such as low-vision devices and can benefit from support from organizations dedicated to those with visual impairments.



LESS LIKELY

Less likely to have retinitis pigmentosa based on 181,521 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
/	rs555679270	GG
ITGA4	rs1006786441	CC
/	rs766981289	CC

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		DOSAGE	
1	Goji Berries	2	Omega-3 (Fish Oil)2000 mg
3	DHA (Omega-3)200 mg	4	Dietary Vitamin A
5	Lutein And Zeaxanthin	6	Dietary Vitamin E
7	Dietary Antioxidants	8	Lutein
9	Vitamin A700 mcg	10	Dietary Omega-3 Fatty Acids
11	Avoid Excess Sunlight Exposure	12	Stress Management Therapy1 hour
13	Support Groups	14	N-acetylcysteine (NAC)1200 mg
15	Vitamin E200 iu		

1



Goji Berries

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate goji berries into your daily diet by adding a handful (about 1 ounce or 28 grams) to your morning cereal, yogurt, or smoothie. You can also snack on dried goji berries throughout the day. Aim to include them in your diet consistently for at least a month to observe potential health benefits.

Description

Goji berries are a nutritious fruit known for their high antioxidant content. They may support immune health, provide essential nutrients, and be incorporated into a healthy diet as a snack or ingredient.

How it helps

A 12-month double-masked study on 42 RP patients found that daily LB granules improved visual acuity and prevented macular thinning, suggesting a neuroprotective effect on the retina without adverse effects [\[R\]](#).

2



Omega-3 (Fish Oil)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

2000 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

In a placebo-controlled trial of 51 male patients with X-linked retinitis pigmentosa, supplementation with DHA (30 mg/kg/day) for 4 years slowed the progression of vision loss [\[R\]](#).

Omega-3 fatty acids may help by reducing inflammation and supporting cell membranes in the eyes.

3



DHA (Omega-3)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take an omega-3 supplement containing DHA at a dosage of 200-500 mg daily, preferable with a meal to improve absorption. It's recommended to continue this supplementation as part of your daily regimen to support heart, brain, and joint health.

TYPICAL STARTING DOSE
200 mg

Description

DHA is an omega-3 fatty acid found in fatty fish and algae-based supplements. It is essential for brain health and has been associated with cognitive function, cardiovascular health, and reducing inflammation in the body.

An **EPA/DHA supplement** can be taken to help meet omega-3 fatty acid needs not achieved through diet. Supplement amounts are generally 250-500mg/d though there are no current official recommendations other than for ALA.

How it helps

In a placebo-controlled trial of 51 male patients with X-linked retinitis pigmentosa, supplementation with DHA (30 mg/kg/day) for 4 years slowed the progression of vision loss [\[R\]](#).

Omega-3 fatty acids may help by reducing inflammation and supporting cell membranes in the eyes.

4



Dietary Vitamin A

IMPACT0 / 5

EVIDENCE0 / 5

How to implement

Include foods high in vitamin A in your daily diet, such as sweet potatoes, carrots, spinach, and fortified foods like milk. Aim for 700-900 micrograms (mcg) of vitamin A per day for adults, depending on your age and sex, with a slightly higher intake recommended for women who are pregnant or breastfeeding.

Description

Vitamin A is essential for maintaining healthy vision, immune function, and skin integrity. It also plays a role in cell differentiation and growth, supporting various bodily functions.

How it helps

Taking vitamin A supplements can modestly slow the progression of retinitis pigmentosa. Vitamin A is essential for the maintenance of the photoreceptor cells in the eye, which are affected by this condition.

5



Lutein And Zeaxanthin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a supplement containing 10mg of lutein and 2mg of zeaxanthin daily, preferably with a meal that contains fat for better absorption.

Description

Lutein and zeaxanthin are carotenoids found in green leafy vegetables and certain supplements. They are known for their role in promoting eye health and reducing the risk of age-related macular degeneration and cataracts when consumed regularly as part of a balanced diet.

Lutein and zeaxanthin are two antioxidant pigments found in the eye [\[R, R\]](#).

Many plants contain lutein and zeaxanthin, including [\[R, R\]](#):

- Leafy greens (kale, spinach, leeks, lettuce)
- Cantaloupe
- Corn
- Peas
- Peppers
- Herbs (basil, parsley)

Egg yolks are the main animal source of these carotenoids [\[R\]](#).

Lutein and zeaxanthin may help support eye health [\[R, R\]](#).

How it helps

Lutein and zeaxanthin are antioxidants that protect the eyes from harmful light waves. Supplements containing these compounds may help in preserving vision in people with retinitis pigmentosa.

6



Dietary Vitamin E

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods high in Vitamin E into your daily diet. This includes almonds, hazelnuts, sunflower seeds, and green leafy vegetables such as spinach and broccoli. Aim for a daily intake of 15mg of Vitamin E from your diet, which is roughly a handful of almonds (about 23 almonds) or 2 tablespoons of sunflower seeds.

Description

Dietary vitamin E is a fat-soluble antioxidant vitamin found in nuts, seeds, and vegetable oils. It helps protect cells from oxidative damage and supports immune function.

[Vitamin E](#) is an antioxidant important for the immune system and for heart health [\[R\]](#).

Plant-based foods have the most vitamin E. These include [\[R\]](#):

- Wheat germ
- Sunflower seeds
- Almonds
- Plant oils

Adults need about **15 mg** of vitamin E per day [\[R\]](#).

How it helps

Although there is some evidence that vitamin E can slow the progression of retinitis pigmentosa, it is generally recommended to not exceed the daily intake due to potential adverse effects when taken in high doses.

7



Dietary Antioxidants

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods rich in antioxidants, such as fruits (berries, oranges, plums), vegetables (spinach, kale, bell peppers), nuts (walnuts, almonds), and seeds (flaxseeds, chia seeds) into your daily meals. Aim for at least 5 servings of fruits and vegetables per day, ensuring a variety of colors to cover different antioxidants.

Description

Dietary antioxidants are compounds found in foods that help neutralize harmful molecules called free radicals, potentially reducing the risk of oxidative stress-related diseases and supporting overall health. Examples include vitamins C and E, beta-carotene, and polyphenols.

Our cells sometimes produce molecules called **reactive oxygen species (ROS)** [\[R\]](#).

High levels of ROS can cause [oxidative stress](#) and damage our cells. Oxidative stress plays a role in many health conditions, including [\[R\]](#):

- High blood sugar
- Type 2 diabetes
- Heart disease

Antioxidants are substances that help combat ROS [\[R\]](#).

Antioxidants are found in many plants. Good sources include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fruits like tomatoes, berries, and pomegranates
- Vegetables like onions, spinach, and celery
- Chocolate
- Olive oil
- Wine

How it helps

Antioxidants can help protect retinal cells from oxidative stress and damage, which is beneficial for people with retinitis pigmentosa.

8



Lutein

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Increase your intake of lutein by eating more dark, leafy greens such as spinach and kale, as well as other foods like corn, peas, and egg yolks. Aim to include these in your daily diet, consuming at least one serving of lutein-rich foods per meal. It can also be taken as a supplement.

Description

Lutein is an antioxidant pigment found in the eye, and may support eye health. It is commonly found in leafy green vegetables.

Lutein is an antioxidant pigment found in the eye. Many plants contain lutein, including [\[R\]](#), [\[R\]](#):

- Leafy greens (kale, spinach, leeks, lettuce)
- Cantaloupe
- Corn
- Peas
- Peppers
- Herbs (basil, parsley)

Lutein may help support eye health [\[R\]](#), [\[R\]](#).

How it helps

Lutein, a type of carotenoid found in leafy greens, may benefit those with retinitis pigmentosa by acting as an antioxidant and filtering harmful high-energy blue wavelengths of light, protecting and maintaining healthy cells in the eyes.

9



Vitamin A

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a vitamin A supplement daily with a fat-containing meal to enhance absorption. The recommended daily allowance (RDA) for most adults is 700-900 micrograms (mcg) for men and women, respectively. Ensure not to exceed the upper intake level (UL) of 3000 mcg per day to avoid toxicity.

TYPICAL STARTING DOSE

700 mcg

Description

Vitamin A is a fat-soluble vitamin essential for various bodily functions, including vision, immune system support, and skin health. It is found in foods like carrots, sweet potatoes, and spinach and is important for maintaining overall health.

Vitamin A is a nutrient important for [\[R\]](#), [\[R\]](#):

- Vision
- Immunity
- Gut health
- Skin health

Foods rich in vitamin A include [\[R\]](#):

- Beef liver
- Sweet potato
- Spinach
- Carrots
- Cheese

Vitamin A is also available in supplement form.

Women should be getting 700 micrograms of vitamin A per day, while men should be getting 900 micrograms [\[R\]](#).

How it helps

Vitamin A has been studied in patients with retinitis pigmentosa and has been found to possibly slow the progression of the condition. It plays a crucial role in the maintenance of vision by being a component of rhodopsin, a protein in the retina that absorbs light.

10



Dietary Omega-3 Fatty Acids

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods high in omega-3 fatty acids into your diet daily. This includes eating fish such as salmon, mackerel, and sardines at least twice a week. Alternatively, include a tablespoon of flaxseed oil or chia seeds in your daily diet.

Description

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA. **EPA and DHA are vital for mental and heart health** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal health, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

Omega-3 fatty acids, found in foods like fish, can help protect cells in the retina. They may slow the progression of retinitis pigmentosa by reducing inflammation and supporting cell survival.

11



Avoid Excess Sunlight Exposure

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Limit direct sun exposure to early morning or late afternoon hours, ideally before 10 a.m. or after 4 p.m., when UV rays are less intense. Wear protective clothing, such as long-sleeved shirts, pants, and wide-brimmed hats, along with sunglasses that block UVA and UVB rays. Apply a broad-spectrum sunscreen with at least SPF 30 to all exposed skin, reapplying every two hours or immediately after swimming or sweating.

Description

Avoiding excessive sunlight exposure and practicing sun safety measures, such as wearing sunscreen and protective clothing, helps reduce the risk of skin damage, including sunburn and skin cancer. It supports long-term skin health and minimizes the harmful effects of UV radiation.

[Sunlight](#) or bright light during the day can benefit your body and mind. It may [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Boost your mood
- Boost your performance and energy
- Improve sleep quality

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 [\[R\]](#), [\[R\]](#).

However, **excessive sun exposure may lead to sunburn, skin aging, and skin cancer**, so make sure to find the right balance [\[R\]](#), [\[R\]](#).

How it helps

For individuals with retinitis pigmentosa, protecting eyes from excessive sunlight exposure is beneficial as it can reduce further damage to the retina. Ultraviolet (UV) rays from the sun can accelerate degeneration of the retina, so wearing sunglasses and hats can help minimize this risk.

12



Stress Management Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in stress management therapy sessions, such as cognitive-behavioral therapy (CBT), for at least 1 hour per week over a course of 8 to 12 weeks. Techniques can include mindfulness, deep breathing exercises, and identifying stressors to develop coping strategies.

TYPICAL STARTING DOSE

1 hour

Description

Stress management therapy refers to various techniques and approaches aimed at reducing and coping with stress. It can improve mental and physical well-being by helping individuals better manage the effects of stress on their health.

How it helps

Managing stress can help with the overall well-being of individuals with retinitis pigmentosa, reducing the risk of additional health problems that can exacerbate the condition.

13



Support Groups

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Attend a support group meeting related to your condition at least once a week. These meetings can be found through local hospitals, online platforms, or health organizations specific to your condition. Participation can be in-person or virtual, depending on what is offered and your preference.

Description

Support groups are gatherings of individuals facing similar challenges, where they can share experiences, emotions, and coping strategies. They offer emotional support, camaraderie, and valuable insights for those dealing with various health conditions or life circumstances.

Support groups involve people with similar struggles helping each other. Support groups usually take place in a casual setting. During sessions, people share their [\[R\]](#):

- Knowledge
- Experiences
- Coping strategies
- Understanding of the recovery process

Support groups may help support recovery from addictions [\[R\]](#).

How it helps

Joining support groups can provide emotional support and valuable resources, which can improve coping strategies and overall feeling of well-being.

14



N-acetylcysteine (NAC)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 600 mg of N-Acetylcysteine (NAC) supplement daily with water. It can be taken at any time of the day, but try to take it at the same time each day for best results.

TYPICAL STARTING DOSE
1200 mg

Description

NAC is a supplement that contains a form of the amino acid cysteine, a protein building block that your body uses to make the antioxidant glutathione. It is used for its potential antioxidant properties and its ability to support lung, gut, and mental health.

[N-acetylcysteine](#) (NAC) is converted to cysteine in the body. Cysteine is a protein building block (amino acid) that helps make the antioxidant glutathione [\[R\]](#).

People take NAC to potentially support [\[R\]](#), [\[R\]](#):

- Mental health
- Ovarian health and pregnancy outcomes
- Lung health
- Gut health

How it helps

N-Acetylcysteine (NAC) acts as an antioxidant, helping to reduce oxidative stress in retinal cells, which is believed to contribute to the progression of retinitis pigmentosa.

15



Vitamin E

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 200 IU of Vitamin E daily as a supplement, preferably with a meal that contains fat to enhance absorption.

TYPICAL STARTING DOSE

200 iu

Description

Vitamin E is a fat-soluble antioxidant found in various foods, such as nuts and seeds. It is known for its ability to protect cells from oxidative damage, support immune function, and may play a role in skin health. Vitamin E supplements are used to bolster antioxidant defenses and may be beneficial for conditions related to oxidative stress.

[Vitamin E](#) is an antioxidant important for the immune system and for heart health [\[R\]](#).

Plant-based foods have the most vitamin E. These include [\[R\]](#):

- Wheat germ
- Sunflower seeds
- Almonds
- Plant oils

Adults need about **15 mg** of vitamin E per day [\[R\]](#).

How it helps

Vitamin E is an antioxidant that can help protect retinal cells from oxidative stress, which may slow disease progression when used in combination with Vitamin A.

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.