

Mucus Production

DNA Health Report

REPORT CATEGORY —



IMMUNITY &
INFECTIONS

Sample Client

Report date: 15 January 2026

Powered by

 omicsege

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

09 Your recommendations

22 Next Steps

- 22 Your Lab Results

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

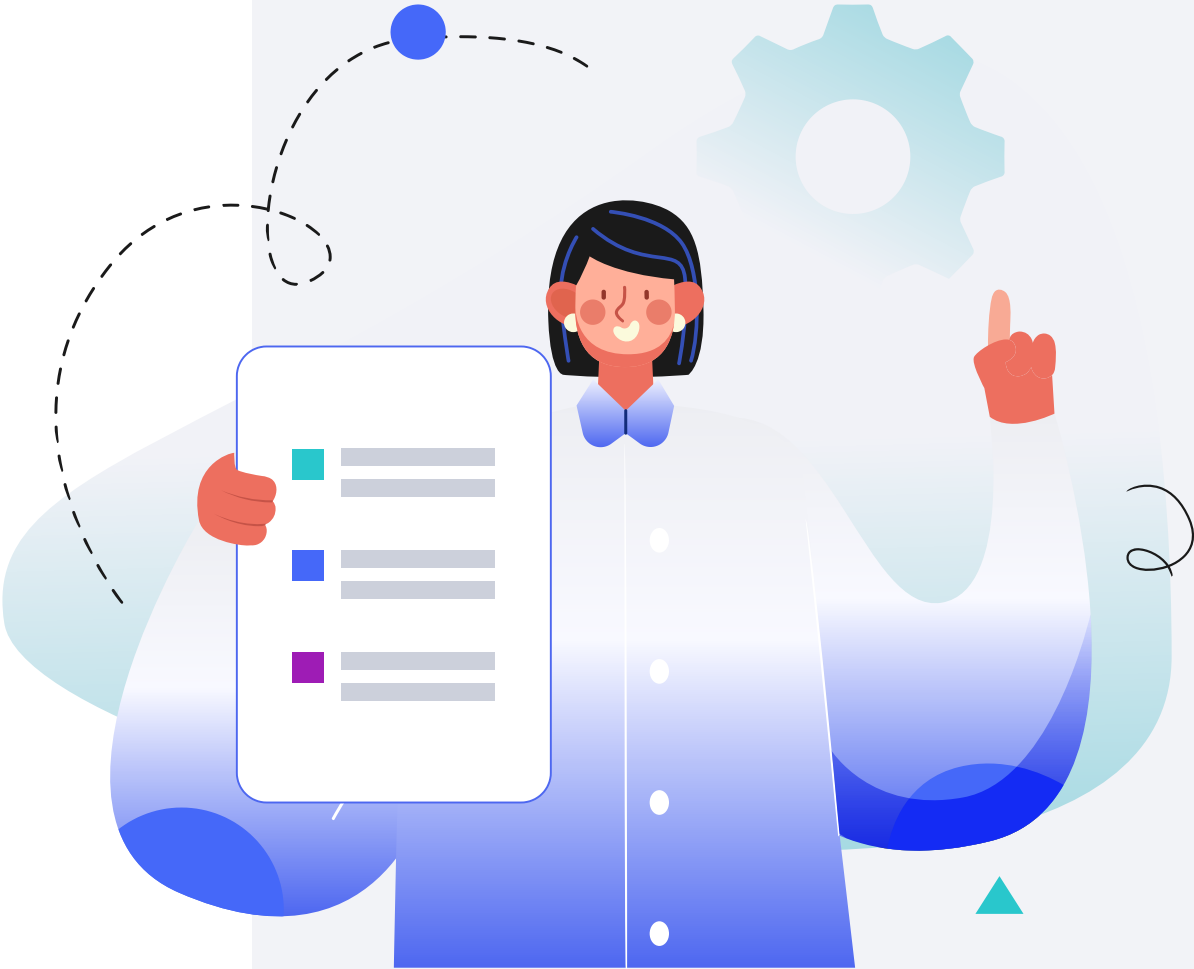
5ft 5" 165cm

WEIGHT

137lb 62kg

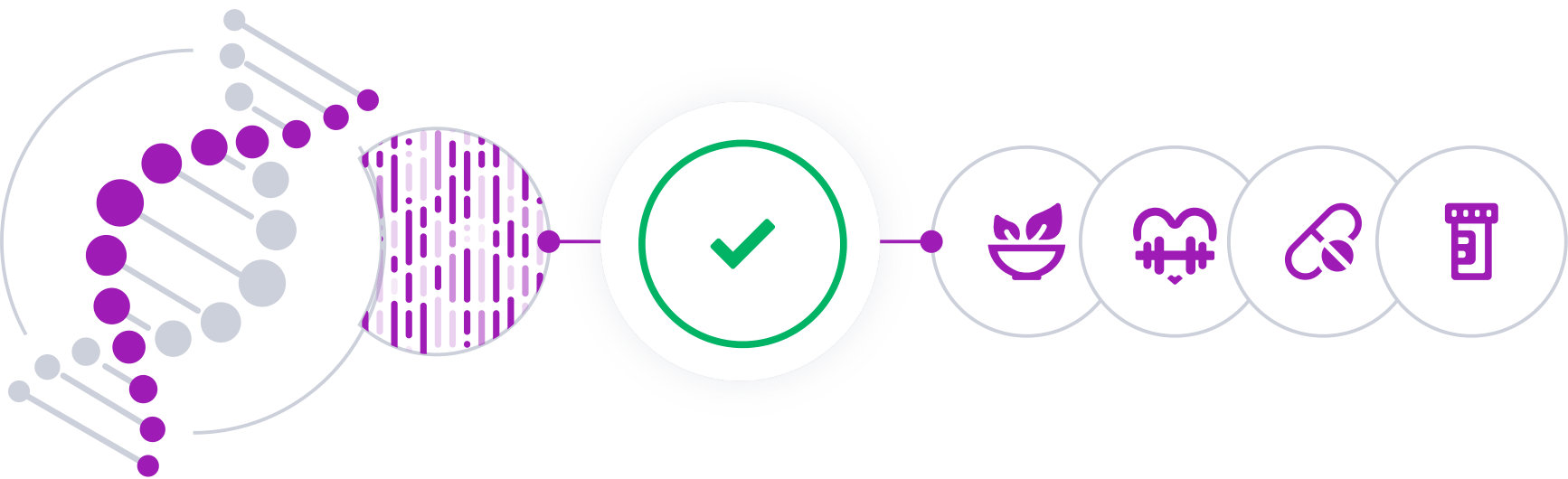
DISCLAIMER

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.

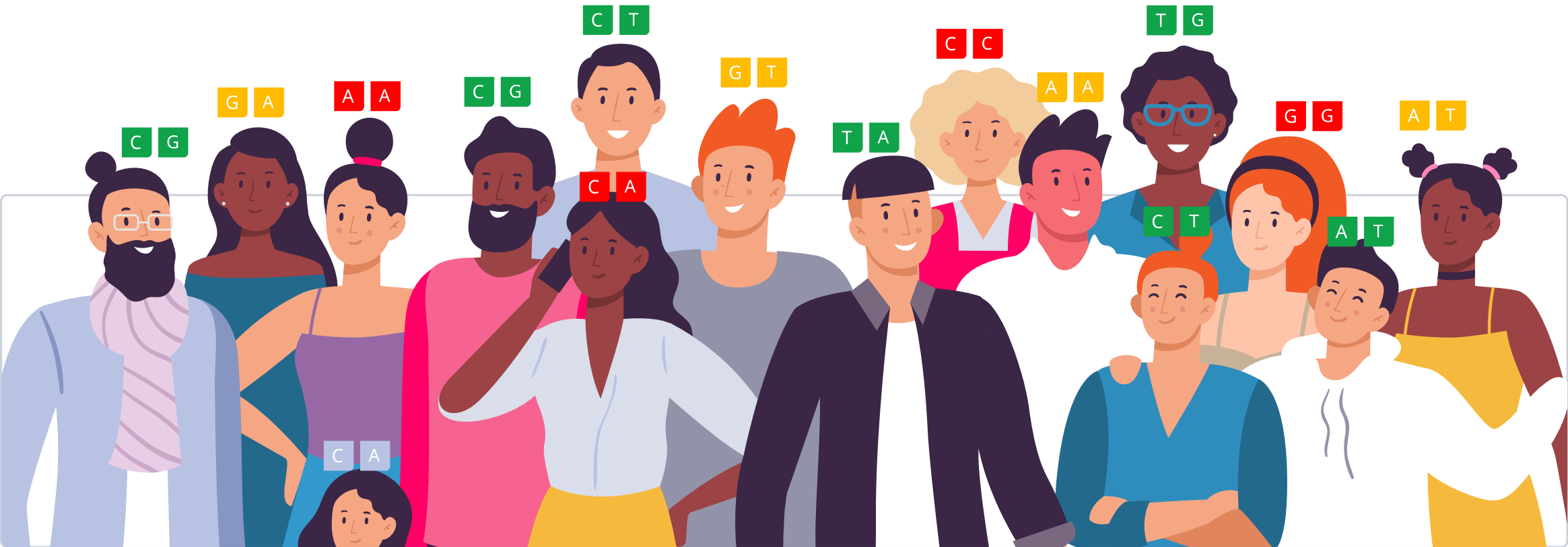


Similarly, our Trait Reports look at how your DNA influences your traits.



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

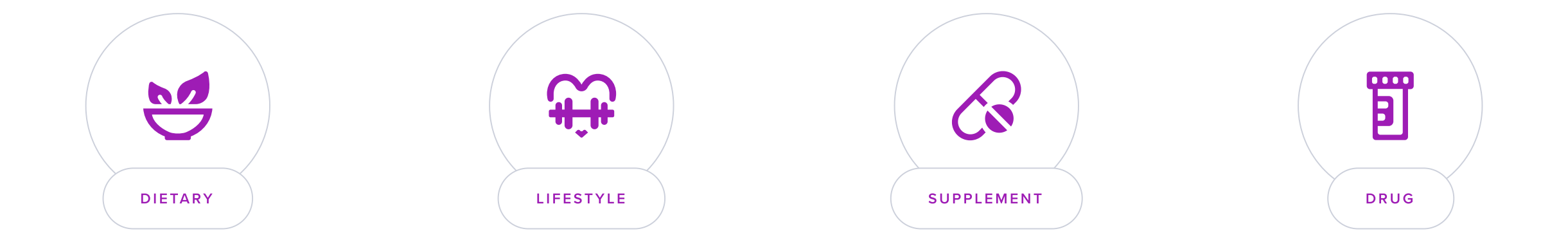
You have 2 risk alleles

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

Mucus production is a normal and vital function within the human body. The mucus (phlegm) acts as a protective and lubricating layer to keep the tissues from becoming dry. It also traps dust, microbes, and other particles that may cause harm. It's found lining several areas of the body, including the:

- Nose
- Throat
- Sinuses
- Lungs
- Gastrointestinal tract.

Abnormalities or changes in mucus can be indicative of health issues. For instance:

- Increased mucus production: infections, allergies, or irritants.
- Changes in color or consistency: different types of infections or conditions.
- Persistent, chronic mucus production: chronic conditions, like chronic bronchitis or cystic fibrosis.

Contributing Factors and Genetics

Many factors can increase mucus production, including:

- Pollutants
- Irritants
- Changes in humidity
- Genetics

The following health conditions can also have an impact:

- Infections (e.g., common cold, flu, bacterial infections)
- Allergies
- Chronic conditions (e.g., asthma, COPD, gastroesophageal reflux disease)



Predisposed to typical mucus production based on 91,570 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		DOSAGE	
1	Avoid Triggers	2	Avoid Contact Triggers
3	Optimize Indoor Air Quality	4	Avoid Exposure To Organic Solvents
5	Avoid Pollution	6	Air Purifier
7	Avoid Exposure to Molds	8	Gargling30 seconds
9	Avoid Air Pollution	10	Airway Muscle Training30 minutes
11	Avoid Contact With Dust	12	Avoid Contact With Pollen
13	Nasal Cleansing	14	Avoid Food Triggers

1



Avoid Triggers

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Identify substances or environmental factors that exacerbate your condition, such as specific foods, stress, or allergens, and actively avoid them. This may involve reading food labels, asking about ingredients when eating out, and making changes to your home or work environment to reduce exposure to identified triggers.

Description

A "trigger" is something that prompts or worsens the symptoms of a health condition. They can be something you eat or come into contact with. Triggers can lead to a wide range of symptoms, such as gut and skin problems and migraines.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

A **food trigger** can be something you eat.

A **physical trigger** can cause a change to your body through physical contact. It can include swimming in cold water or something you touch or inhale [\[R, R, R\]](#).

Triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [\[R, R, R, R, R, R, R, R\]](#):

- Gut problems
- Skin problems
- Migraines

How it helps

Avoiding triggers is essential in managing mucus production as it minimizes exposure to allergens and irritants that can exacerbate respiratory symptoms. By reducing these stimuli, individuals can achieve better control over their mucus levels and improve overall respiratory function.

2



Avoid Contact Triggers

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Identify substances or materials that irritate your skin or exacerbate your condition and consistently avoid direct contact with them. This may involve wearing protective clothing or gloves, changing household cleaners or detergents to hypoallergenic options, and carefully reading labels on cosmetics and skin care products to ensure they do not contain irritants specific to your sensitivity.

Description

Identifying and avoiding contact triggers, such as allergens or irritants, can help individuals manage allergies or sensitive skin conditions more effectively, reducing symptoms and improving overall quality of life.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

A contact trigger can be something you touch or inhale. It can include anything from your own sweat to dust in the air [\[R\]](#).

A physical trigger can be anything you come into physical contact with that causes a change to your body. It can include anything from swimming in cold water to wearing tight clothing [\[R\]](#), [\[R\]](#).

In people who are sensitive to them, physical triggers may contribute to vitiligo [\[R\]](#), [\[R\]](#).

In fact, **about 1 in 5 people may have at least one contact trigger**. Common triggers may include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Nickel and cobalt (e.g., jewelry)
- Latex (e.g., rubber gloves)
- Fragrances

Contact triggers may cause or worsen symptoms in people with eczema [\[R\]](#), [\[R\]](#).

How it helps

Avoiding contact triggers minimizes direct irritation to mucosal surfaces, reducing inflammation and excess mucus production. This proactive approach helps stabilize symptoms by preventing potential exacerbations linked to physical contact.

3



Optimize Indoor Air Quality

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To optimize indoor air quality, regularly clean or replace air filters in your HVAC system at least every three months, use an air purifier in rooms where you spend the most time, ensure proper ventilation by opening windows when weather permits, and reduce the use of air fresheners and candles that can add pollutants to the air. Aim to maintain these practices year-round to consistently improve indoor air quality.

Description

Optimizing indoor air quality involves implementing measures to reduce pollutants and allergens in indoor environments. It can promote respiratory health, reduce allergy symptoms, and create a more comfortable living space.

Cars, factories, and other sources increase outdoor air [pollution](#) ^[R].

But air pollution can also happen indoors. Indoor air pollutants include vapors from cooking and cleaning, mold, and smoke ^[R, R].

Sick building syndrome is a collection of symptoms that seem to be caused by exposure to these air pollutants. People with this syndrome tend to have ^[R, R, R]:

- Breathing problems
- Headaches
- Drowsiness
- Brain fog

How it helps

Improving indoor air quality minimizes exposure to airborne irritants, thereby alleviating inflammation in the respiratory tract and reducing excessive mucus production. This creates a more conducive environment for respiratory health and symptom management.

4



Avoid Exposure To Organic Solvents

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Ensure to work in well-ventilated areas and wear protective gear when handling products like paints, varnishes, and adhesives. When possible, choose solvent-free or water-based products to minimize exposure. Regularly check labels for any solvents listed and strive to limit their use in both personal and professional settings.

Description

Avoiding exposure to organic solvents, commonly found in paints, adhesives, and cleaning products, can protect against the potential health risks associated with inhalation or skin contact, such as respiratory issues and skin irritation.

Organic solvents are used in various industries and workplaces for tasks like cleaning, painting, and manufacturing.

However, their use can be hazardous to workers' health. Exposure to these solvents can lead to problems such as breathing difficulties, skin irritation, and reduced fertility [\[R\]](#).

How it helps

Avoiding exposure to organic solvents can enhance respiratory health by reducing inflammation and irritation of the airways, which may alleviate excessive mucus production caused by environmental irritants. This protective measure supports overall lung function and symptom management.

5



Avoid Pollution

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Minimize your exposure to pollution by staying indoors on days when air quality is poor, using air purifiers at home, and avoiding heavy traffic areas whenever possible. Aim to check the air quality index (AQI) daily, especially if you live in urban or industrial areas, and adjust your outdoor activities accordingly.

Description

Urban environments come with some health hazards. Cars, factories, and other sources increase air [pollution](#). This can play a role in lung and heart disease, diabetes, and allergies. Other forms of pollution like environmental pollutants and noise pollution may also contribute to health problems.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) [\[R\]](#).

Air pollution plays a role in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung disease
- Heart disease
- Diabetes
- Allergies

Other forms of pollution can cause a number of health issues as well. Environmental pollutants, such as mercury and PCBs (polychlorinated biphenyls), may reduce lifespan [\[R\]](#), [\[R\]](#).

How it helps

Avoiding pollution reduces exposure to harmful airborne irritants that can exacerbate inflammation and mucus production in the respiratory tract, leading to improved lung function and alleviated symptoms related to mucus overproduction.

6



Air Purifier

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Install an air purifier in your home, ideally in the rooms you spend the most time in, such as your bedroom and living room. Keep the air purifier on for at least 12 hours each day, or continuously if possible, to effectively reduce airborne contaminants. Regularly clean or replace the filters according to the manufacturer's instructions to maintain its efficiency.

Description

Air purification is the process of cleaning the air around us. Using a high-quality air purifier with a HEPA filter helps remove harmful particles like dust, smoke, and bacteria. Having clean air to breathe can help boost your health by reducing allergies, asthma problems, and even certain infections.

How it helps

Air purifiers mitigate irritants such as allergens, dust, and pollutants in the air, which can trigger inflammatory responses and excess mucus production in the respiratory tract. Improved air quality supports better respiratory health and reduces mucus-related symptoms.

7



Avoid Exposure to Molds

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Keep indoor humidity levels below 50% by using dehumidifiers or air conditioners, ensure proper ventilation in areas like bathrooms and kitchens, fix leaks promptly, and clean up any water damage within 24-48 hours to prevent mold growth. Regularly check and clean places where mold tends to accumulate, such as shower curtains, window sills, and refrigerator drip pans.

Description

[Molds](#) are tiny fungi that live all around us: in the soil and air, on food crops, and even on our skin. Some of them are beneficial while others can wreak havoc on our health. Inhaled mold may cause a range of respiratory symptoms, like infections, asthma, and coughing.

[Molds](#) are tiny fungi that live all around us: in the soil and air, on food crops, and even on our skin. Some of them are beneficial while others can wreak havoc on our health [\[R\]](#).

Inhaled mold may cause a range of respiratory symptoms, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Respiratory infections
- Reduced lung function
- Caugh
- Asthma worsening

Mycotoxins are the most dangerous aspect of **foodborne mold**. Exposure to higher amounts of these toxins can damage the organs and promote cancer growth [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

Avoiding exposure to molds helps mitigate respiratory inflammation and irritation, which can exacerbate mucus production. By reducing contact with mold, individuals can decrease the risk of respiratory symptoms and improve overall airway function.

8



Gargling

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Gargle with warm salt water for 30 seconds, two to three times a day, especially after meals and before bed. Dissolve half a teaspoon of salt in a cup of warm water for the solution.

TYPICAL STARTING DOSE

30 seconds

Description

Gargling with salt water or certain antiseptic solutions is a simple practice that can help soothe a sore throat, reduce inflammation, and promote oral hygiene. It is often recommended as a natural remedy for minor throat discomfort and respiratory health.

Gargling is the act of bubbling some liquid in the throat and spitting it afterwards. The most common gargling solution is water with table salt, but you can use other salts or add ingredients such as honey, lemon, or herbs to improve the taste.

Salt water gargling has been used as a safe, affordable home remedy for sore throat since before modern medicine. People also use salt water gargles to improve [R](#), [R](#), [R](#), [R](#):

- Respiratory infections
- Mouth ulcers
- Allergies
- Dental problems

How it helps

Gargling with salt water helps reduce throat inflammation and soothes irritation, which can alleviate symptoms associated with excessive mucus production. This practice also enhances mucosal hydration, facilitating the clearance of mucus from the respiratory tract.

9



Avoid Air Pollution

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) ^[R].

Air pollution plays a role in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

Avoiding air pollution helps minimize irritation and inflammation in the respiratory tract, leading to reduced mucus production. This is crucial for individuals affected by conditions such as asthma or chronic bronchitis, where excess mucus can exacerbate symptoms.

10



Airway Muscle Training

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Perform airway muscle training exercises daily for at least 30 minutes. This can involve using specific devices designed to resist airflow in and out, thereby strengthening the respiratory muscles, or practicing breathing exercises that focus on inhaling and exhaling against resistance. Consistency is key, so aim to integrate this practice into your daily routine for ongoing respiratory health.

TYPICAL STARTING DOSE

30 minutes

Description

Airway muscle training is exercise that builds strength in the throat and tongue muscles. This can involve anything from controlled breathing to singing long notes. People use airway muscle training to improve sleep apnea, respiratory conditions, and exercise performance.

Airway muscle training is exercise that builds strength in the throat and tongue muscles. This can involve anything from controlled breathing to singing long notes. People use airway muscle training to improve [\[R, R, R, R\]](#):

- Sleep apnea
- Respiratory conditions like COPD
- Exercise performance

How it helps

Airway muscle training enhances the strength and coordination of throat and tongue muscles, facilitating better airway clearance and reducing mucus obstruction. This intervention can significantly improve breathing ease and overall respiratory function in individuals with excess mucus production.

11



Avoid Contact With Dust

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid contact with dust, clean surfaces with a damp cloth at least twice a week, use a vacuum cleaner with a HEPA filter regularly on carpets and upholstery, and avoid using feather dusters that disperse dust into the air. Additionally, consider using air purifiers in rooms where you spend the most time and keep windows closed on windy days to prevent outdoor dust from coming in.

Description

Avoiding exposure to dust can help alleviate allergy symptoms such as sneezing, runny nose, and itchy eyes, promoting respiratory comfort and overall well-being, particularly for individuals with allergies or allergic conditions.

How it helps

Avoiding contact with dust minimizes irritants that can lead to increased mucus production, thereby reducing respiratory discomfort and associated symptoms such as coughing and nasal congestion. This is particularly beneficial for individuals with allergies or respiratory conditions.

12



Avoid Contact With Pollen

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Stay indoors during high pollen count days, usually during early morning or late afternoon. Close windows and use air purifiers to keep indoor air clean. Shower and change clothes after being outside to remove pollen.

Description

Avoiding exposure to pollen can help alleviate allergy symptoms such as sneezing, runny nose, and itchy eyes, promoting respiratory comfort and overall well-being, particularly for individuals with allergies and allergic conditions.

How it helps

Avoiding contact with pollen decreases exposure to allergens that trigger inflammatory responses in the airways, thereby reducing mucus production and alleviating respiratory symptoms associated with allergies.

13



Nasal Cleansing

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Perform nasal cleansing using a saline solution twice a day, in the morning and evening. Tilt your head sideways over a sink and gently pour the saline solution into the upper nostril, allowing it to flow out of the lower nostril, then switch sides.

Description

Nasal cleansing, often done using saline solutions or neti pots, helps clear nasal passages, alleviate congestion, and reduce allergy symptoms, promoting better respiratory comfort and improved breathing.

Nasal cleansing involves rinsing your nasal passages with a sterile salt solution. This is done with a squeeze bottle or a teapot-like container called a neti pot [\[R\]](#), [\[R\]](#), [\[R\]](#).

People mainly use nasal cleanses to relieve a stuffy nose, which may be caused by [\[R\]](#), [\[R\]](#):

- Allergies
- Colds
- Sinus problems

How it helps

Nasal cleansing helps reduce mucus production by mechanically flushing out excess mucus and irritants from the nasal passages, thereby promoting clearer airways. This process enhances respiratory comfort and can significantly alleviate symptoms associated with congestion.

14



Avoid Food Triggers

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Identify foods that trigger negative reactions in your body, such as digestive issues, allergies, or headaches, and eliminate them from your diet entirely. This may require keeping a food diary for a few weeks to observe patterns and might involve cutting out common triggers like dairy, gluten, soy, or certain additives. Continuously monitor and adjust your diet to avoid these triggers as long as the symptoms persist.

Description

Food triggers are specific substances or ingredients in one's diet that can exacerbate or induce adverse reactions, such as allergies, sensitivities, or digestive issues, often leading to symptoms like inflammation, bloating, or discomfort.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

Food triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [R](#), [R](#), [R](#), [R](#):

- Gut problems
- Skin problems
- Migraines

How it helps

Avoiding food triggers helps minimize systemic inflammation, which can contribute to excessive mucus production. By reducing inflammatory responses, individuals may experience less congestion and respiratory discomfort.

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.