

Sore Throat

DNA Health Report

REPORT CATEGORY —



Sample Client

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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.

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



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

A sore throat, or pharyngitis, is a common condition frequently characterized by a raw, scratchy, or painful sensation in the throat. This discomfort can be a result of inflammation, infection, environmental factors, or other irritants. Viral infections, such as the common cold or the flu, are among the leading causes of a sore throat.

Additionally, bacterial infections like streptococcal pharyngitis - known as strep throat - can also result in significant throat pain. People with sore throats may also experience symptoms such as difficulty swallowing, swollen glands, and hoarseness.

Causes and Treatment

Beyond infections, a sore throat can also be triggered by dry air, pollution, smoking, or allergies, all of which can irritate the throat lining. Overuse of the voice, such as shouting or prolonged speaking, is another common culprit.

While most sore throats are not severe and tend to resolve on their own, treatment options include staying hydrated, throat lozenges, anti-inflammatory medications, and, when appropriate, antibiotics for bacterial infections. In cases where a sore throat is frequent or chronic, it may signal an underlying condition that requires medical evaluation.



TYPICAL LIKELIHOOD

Typical likelihood of sore throat based on 541 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	Sage Extract	300 mg	2	Chewing	
3	Serrapeptase		4	Echinacea and Sage	
5	Honey		6	Topical Chamomile	
7	Topical Peppermint Oil		8	Zinc	15 mg
9	Gargling	30 seconds	10	Peppermint	
11	Echinacea	240 mg	12	Avoid Cold Exposure	
13	Topical Honey		14	Ginger	500 mg

1



Sage Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take sage extract in supplement form, ideally in doses ranging from 300 to 600 mg daily, divided into 2 or 3 doses throughout the day. It is recommended to follow this regimen for at least 1 to 2 months to evaluate its effects on cognitive function and mood improvements.

TYPICAL STARTING DOSE
300 mg

Description

Common sage (*Salvia officinalis*) is an herb from the mint family. It is native to the Mediterranean region. The main compounds in sage extract include essential oils like thujone and cineole, which contribute to its flavor and potential benefit for sore throats and digestive issues [R].

People commonly use sage as a spice and a traditional remedy for [R, R]:

- Sore throat
- Mood
- Blood sugar and cholesterol control
- Heavy sweating

How it helps

A study involving 286 patients with pharyngitis assessed a 15% sage spray. It showed significant superiority over placebo in reducing throat pain intensity within two hours, with minor side effects. This indicates its efficacy and tolerability for acute pharyngitis treatment [R].

In a multicenter trial in Switzerland, 154 patients received either echinacea/sage or chlorhexidine/lidocaine spray for acute sore throat. Both treatments showed similar efficacy and tolerability over three days, indicating echinacea/sage as a viable alternative [R].

Please note: *rosmarinic acid from sage may inhibit the production of the thyroid hormone T4 (thyroxine). Individuals with thyroid disorders, particularly hypothyroidism or low T4 levels, should exercise caution when using sage extract and always consult with a healthcare provider before taking this supplement* [R].

2



Chewing

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate chewing thoroughly into your daily eating habits by ensuring each bite is chewed 20-30 times before swallowing. Practice this technique at every meal and with snacks to improve digestion and satiety.

Description

Chewing can help to reduce the tendency to overeat by keeping your mouth busy and providing a sense of fullness. It can also help to improve your metabolic rate and increase your energy levels. Additionally, chewing can help to improve your attention span and reduce stress levels.

How it helps

Chewing gum before surgery reduced post-operative sore throat after general anesthesia with a supraglottic airway in a non-placebo-controlled trial of 140 patients [\[R\]](#).

3



Serrapeptase

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take serrapeptase on an empty stomach, which means at least 2 hours after eating and 30 minutes before eating. The typical dosage ranges from 10,000 to 60,000 units per day, depending on the specific health condition being addressed. It is often recommended to start with a lower dose to assess tolerance and then gradually increase as needed. This supplement is usually taken in capsule form once daily.

Description

Serrapeptase is an enzyme derived from the silkworm and is used today as a dietary supplement for its potential anti-inflammatory properties, supporting joint health and reducing inflammation.

Serrapeptase is an enzyme that helps the body break down some types of protein. This might help **decrease inflammation and mucus**.

People use serrapeptase for conditions like back pain, joint pain, and other conditions involving pain and inflammation. It may also relieve cough by breaking down mucus. However, there is weak evidence to support these uses.

How it helps

In a placebo-controlled trial of 193 participants with acute or chronic ear, nose, or throat disorders, supplementation with serrapeptase for 7-8 days improved symptoms such as inflammation or swelling and was well-tolerated [\[R\]](#).

4



Echinacea and Sage

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take an echinacea supplement of 240 mg to 480 mg per day, divided into 2 to 3 doses, for up to 8 weeks to support immune function. It is available in various forms such as capsules, tinctures, or teas. Take sage extract in supplement form, ideally in doses ranging from 300 to 600 mg daily, divided into 2 or 3 doses throughout the day. It is recommended to follow this regimen for at least 1 to 2 months to evaluate its effects on cognitive function and mood improvements.

Description

Echinacea (*Echinacea angustifolia*), also known as purple coneflower, is a herb traditionally used for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Common cold and flu
- Anxiety
- Infections

Common sage (*Salvia officinalis*) is an herb from the mint family. It is native to the Mediterranean region. The main compounds in sage extract include essential oils like thujone and cineole, which contribute to its flavor and potential benefit for sore throats and digestive issues [\[R\]](#).

People commonly use sage as a spice and a traditional remedy for [\[R\]](#), [\[R\]](#):

- Sore throat
- Mood
- Blood sugar and cholesterol control
- Heavy sweating

How it helps

In a non-placebo-controlled trial of 154 patients with acute sore throat, a spray with echinacea and sage was as efficacious and well tolerated as a chlorhexidine/lidocaine spray [\[R\]](#).0

5



Honey

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume 1-2 tablespoons of raw honey daily, either directly or by mixing it into warm water, tea, or yogurt. Continue this practice regularly to observe benefits.

Description

Honey is a natural sweetener known for its antimicrobial properties and potential benefits for wound healing. It contains antioxidants and may have soothing effects on sore throats and coughs.

[Honey](#) is a thick, sweet substance. It’s made by honeybees from the nectar of flowering plants. There are many different types of honey. Besides sugar, honey also contains amino acids (protein building blocks), vitamins, and minerals [\[R\]](#).

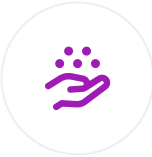
People use honey for its anti-inflammatory and antioxidant properties. It can potentially help with [\[R\]](#):

- Heart problems
- Gut problems
- Cough
- Burns

How it helps

Honey has been shown to have antibacterial and anti-inflammatory effects. Its thick consistency can coat the throat, which might help ease the soreness and irritation commonly experienced.

6



Topical Chamomile

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply a chamomile cream or ointment directly to the affected area of the skin 2-3 times daily. Ensure the skin is clean before application. Continue use for as long as symptoms persist or according to the product's specific instructions.

Description

Chamomile extract, obtained from the flowers of the Matricaria chamomilla plant, is used topically for its anti-inflammatory and calming properties. It is commonly applied to soothe irritated skin and alleviate conditions like dermatitis.

How it helps

Chamomile has anti-inflammatory properties which can help in soothing a sore throat. As a topical application in the form of chamomile tea gargle, it reduces inflammation and pain, providing a calming effect on the throat.

7

Topical Peppermint Oil

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply 2-3 drops of peppermint oil diluted in a carrier oil (such as coconut or jojoba oil) directly to the area of concern. Do this no more than 2-3 times daily. Always perform a patch test on a small area of your skin first to check for any adverse reactions.

Description

Peppermint oil, extracted from the peppermint plant, is used topically for its cooling and soothing properties. It can provide relief from headaches, muscle aches, and skin irritations when applied to affected areas.

How it helps

Peppermint oil contains menthol, which can help in cooling and soothing a sore throat. Topically applied as part of a gargle solution, it provides a numbing effect that can relieve throat discomfort.

8



Zinc

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 15 mg zinc supplement daily, ideally with a meal to enhance absorption.

TYPICAL STARTING DOSE

15 mg

Description

Zinc is an essential mineral found in various foods, including meat, dairy, and nuts. It is crucial for immune function, wound healing, DNA synthesis, and maintaining healthy skin and nails. Zinc supplements are sometimes used to support immune health and manage zinc deficiencies.

[Zinc](#) is an essential mineral. Your body needs it to [\[R\]](#), [\[R\]](#):

- Defend against disease
- Protect DNA from damage
- Heal wounds
- Control blood sugar

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [\[R\]](#).

Adults should get **8-11 mg of zinc** per day [\[R\]](#).

How it helps

Zinc lozenges have been suggested to reduce the duration of cold symptoms, including sore throats. Zinc is believed to prevent the replication of the cold virus within the throat and nasal passages, thereby reducing the severity and duration of symptoms.

9



Gargling

IMPACT

0 / 5

EVIDENCE

0 / 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 warm salt water can help reduce throat inflammation and kill bacteria. This simple remedy can relieve sore throat pain and may help in faster recovery when done several times a day.

10



Peppermint

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 1-2 capsules of peppermint oil, which is often sold as a supplement, three times a day before meals. This is usually done for 4-6 weeks to help with symptoms like digestive discomfort. Always check the specific dosage on the product label since concentrations can vary.

Description

Peppermint is an aromatic plant and a member of the mint family. It has a long history of traditional use, dating back to ancient Egypt and Greece, and is native to Europe and Asia but is now cultivated worldwide. Its main traditional uses include soothing digestive issues, alleviating headaches, and providing relief from respiratory symptoms. This is due to its active compounds menthol and menthone. It is used today for similar purposes, whether eating, made into tea, or consumed as a supplement.

How it helps

Peppermint contains menthol, which can numb the throat and act as a natural pain reliever. It also has antimicrobial properties, helping to fight off infections that might be causing the sore throat.

11



Echinacea

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take an echinacea supplement of 240 mg to 480 mg per day, divided into 2 to 3 doses, for up to 8 weeks to support immune function. It is available in various forms such as capsules, tinctures, or teas.

TYPICAL STARTING DOSE
240 mg

Description

Echinacea is an herbal remedy believed to boost the immune system and reduce the severity and duration of colds and respiratory infections. Some studies suggest that it may have immune-stimulating properties, but the evidence is mixed, and its effectiveness varies among individuals.

[Echinacea](#) (*Echinacea angustifolia*), also known as purple coneflower, is a herb traditionally used for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Common cold and flu
- Anxiety
- Infections

How it helps

In a non-placebo-controlled trial of 154 patients with acute sore throat, a spray with echinacea and sage was as efficacious and well tolerated as a chlorhexidine/lidocaine spray [\[R\]](#).

12



Avoid Cold Exposure

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Minimize your time outdoors during cold weather. When you must go out, wear appropriate clothing such as insulated jackets, hats, gloves, and waterproof boots to protect against the cold. It's especially important to keep your extremities covered to prevent frostbite. Aim to limit outdoor exposure on very cold days and try to stay indoors, where it's warm, as much as possible.

Description

Avoiding prolonged exposure to extreme cold temperatures is essential for preventing cold-related health issues like fatigue, hypothermia, and slower body functions. Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems.

Cold exposure occurs when the body is exposed to lower-than-normal temperatures for a prolonged period of time. It can happen when someone is immersed in cold water or outdoors without proper clothing or shelter [\[R\]](#).

Cold exposure may cause the body's core temperature to drop, which results in shivering and muscle stiffness. Prolonged or extreme cold exposure may lead to [\[R, R\]](#):

- Slower body functions
- Fatigue
- Confusion
- Hypothermia

Cold exposure may be risky for people with respiratory conditions like asthma and those with blood vessel problems [\[R\]](#).

How it helps

Exposure to cold air can irritate the throat and exacerbate sore throat symptoms. Staying warm and avoiding cold drafts can help minimize additional throat irritation.

13



Topical Honey

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Apply a thin layer of raw, unpasteurized honey directly to the affected area of the skin. Cover it with a sterile bandage and leave it on for at least 1 hour, or overnight for best results. Repeat daily until improvement is seen.

Description

Honey is a natural topical application known for its moisturizing, antibacterial, and wound-healing properties. It is used to soothe dry skin, promote skin repair, and address minor burns and cuts.

[Honey](#) is a thick, sweet substance. It’s made by honeybees from the nectar of flowering plants. There are many different types of honey. For example, kanuka honey is made from the flowers of the New Zealand kanuka tree [\[R\]](#), [\[R\]](#).

Besides sugar, honey also contains amino acids (protein building blocks), vitamins, and minerals [\[R\]](#).

People use honey for its anti-inflammatory and antioxidant properties. It may help with [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart problems
- Gut problems
- Cough
- Skin problems

How it helps

Topical honey is beneficial for sore throats due to its antimicrobial properties. It can reduce the bacteria responsible for the infection and also soothes the throat by forming a protective coat, reducing irritation and promoting healing.

14



Ginger

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 500 mg ginger supplement daily, preferably with a meal to enhance absorption and minimize potential stomach discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Ginger is a versatile spice known for its potential anti-inflammatory and digestive benefits. It may help alleviate nausea, reduce muscle soreness, and support gastrointestinal comfort when consumed as part of a balanced diet.

[Ginger root](#) is a cooking spice and a traditional remedy. People mostly use it to relieve [\[R\]](#):

- Nausea
- Menstrual cramps
- Joint pain

How it helps

Ginger has natural anti-inflammatory and antimicrobial properties, making it an effective home remedy for sore throat relief. Drinking ginger tea or consuming ginger in other forms can help reduce inflammation, soothe the throat, kill harmful bacteria, and even boost the immune system to fight off the infection causing the sore throat.

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.

