

EBV Infection

DNA Health Report

REPORT CATEGORY —



IMMUNITY &
INFECTIONS

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

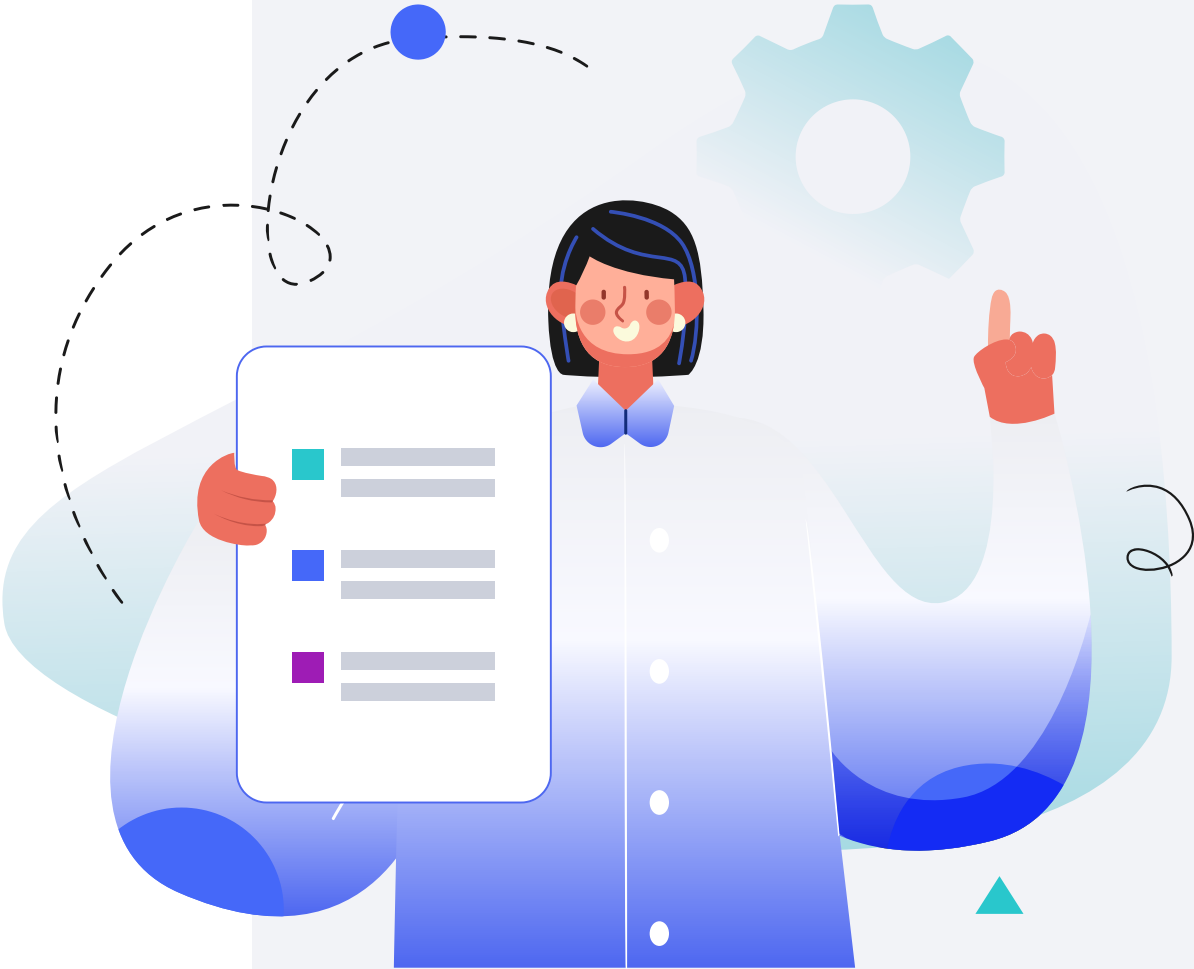
Male

HEIGHT

5ft 5" 165cm

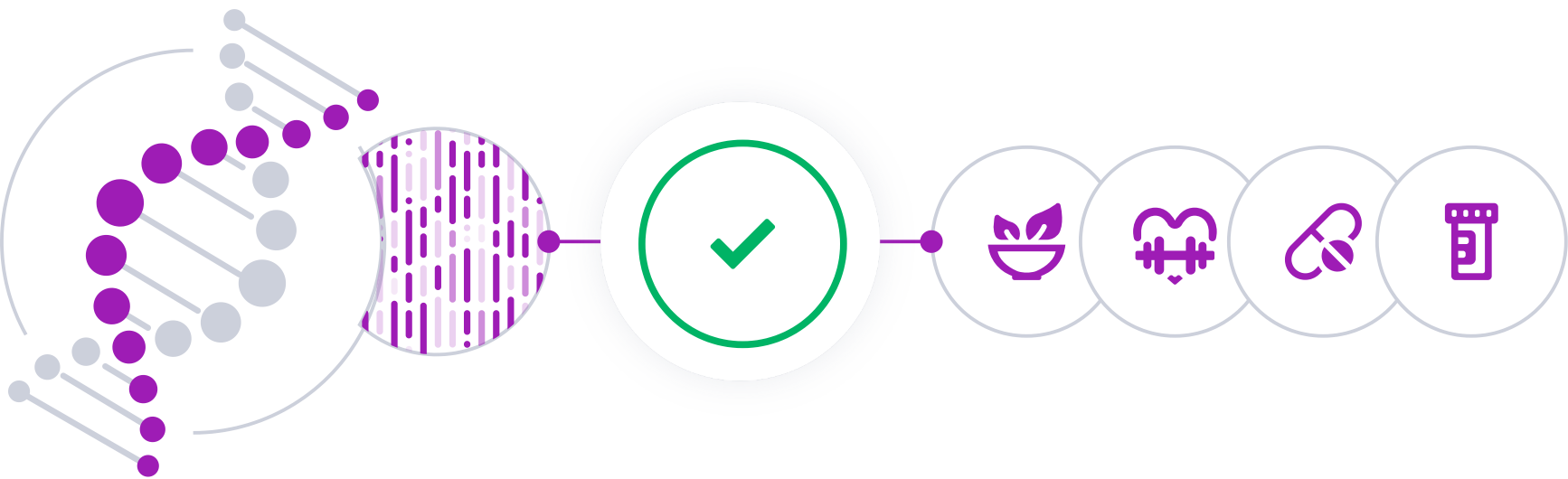
WEIGHT

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.

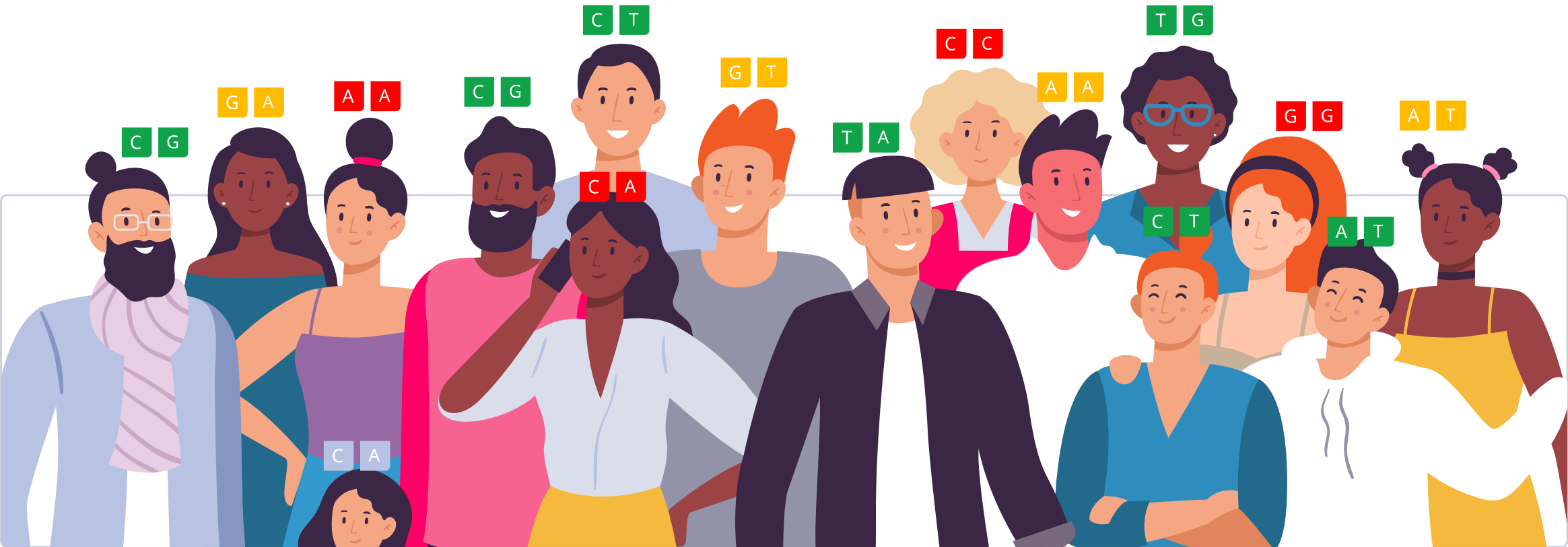


Similarly, our Trait Reports look at how your DNA influences your traits.



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

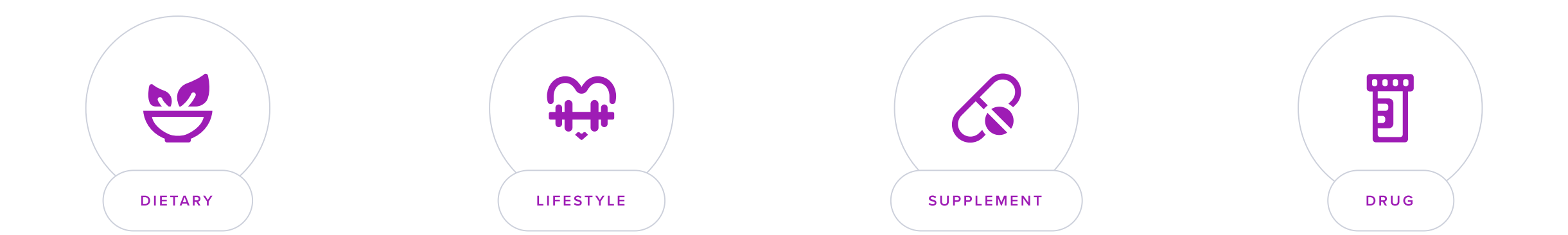
You have 2 risk alleles

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

Epstein-Barr virus (EBV), also known as human herpesvirus 4, is one of the most common human viruses. In fact, EBV infects **90%-95% of all adults** globally [\[R\]](#).

EBV spreads via bodily fluids, primarily saliva. Hence, the main condition caused by this virus, *mononucleosis* (mono), is sometimes called “the kissing disease”. EBV is also linked to multiple sclerosis and some types of cancer [\[R\]](#).

Signs and symptoms of EBV infection can include [\[R\]](#):

- Fatigue
- Fever
- Inflamed throat
- Swollen lymph nodes in the neck
- Enlarged liver and spleen
- Rash

Symptoms generally last two to four weeks. However, some people may feel fatigued for months.

Risk Factors

Epstein-Barr virus (EBV) is one of the most common human viruses. It mainly spreads via saliva and may cause mononucleosis or “the kissing disease”.

Although almost everyone will come into contact with the virus, only a fraction of people will develop EBV infection. Risk factors for EBV infection include [\[R\]](#):

- Contact with infected person or objects
- Spending time in unventilated, crowded spaces
- Compromised immune system
- **Genetics**

Genetics also seems to play a role in mononucleosis, the main condition caused by EBV [\[R\]](#).



TYPICAL LIKELIHOOD

Typical likelihood of getting EBV infection based on 1,667 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
HLA-DQA1	rs6927022	GA
HLA-DRB1	rs9271536	TA
SUGCT	rs186721582	GG
PHF14	rs73067509	CG
BTN3A2	rs9379862	CT
P2RY12	rs67886110	GT
IRF4	rs2316515	AG
RHBDD3	rs138870856	CC
SLC24A4	rs4900130	GG
UTP20	rs78440807	GG
S1PR4	rs61731111	CC
PHKB	rs56257827	GG
SIDT1	rs34023543	AA
SVEP1	rs74597491	TT
GBE1	rs28763904	AA
SPATA6	rs77303590	CC
CPXM1	rs41310169	CC
MS4A13	rs55756397	GG
CEP63	rs114108011	GG
FANCI	rs117125761	CC
DCAF4	rs117449182	GA
GCNT1	rs11546569	CG
MST1	rs142690032	AG
FILIP1	rs62415695	GA

GENE	SNP	GENOTYPE
KRT83	rs2857667	AA
CC2D2A	rs144439937	AA
C1QBP	rs56014026	GG
EXOG	rs1141223	GG
RAB11FIP1	rs61746628	GG
RELN	rs55689103	CC
COQ2	rs112033303	TT
CGRRF1	rs34839928	CC
MFSD12	rs34878396	CC
CFAP206	rs35438647	GG
SDF2L1	rs73166641	GG
FAM81A	rs111778770	GG
ASCC1	rs11000217	GG
BBS10	rs142863601	CC
LIPI	rs61740029	AA

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

Your Recommendations

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

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

DOSAGE		DOSAGE	
1	Avoid Close Contact With Infected People	2	Good Hygiene Practices20 seconds
3	Avoid Strenuous Activity	4	Drink at Least 8 Glasses of Water a Day
5	Safer Sex Practices	6	Relaxation Techniques30 minutes
7	Gargling30 seconds	8	Chlorhexidine Mouthwash10 ml
9	Astragalus500 mg	10	Zinc15 mg
11	Avoid Deep Kissing		

1



Avoid Close Contact With Infected People

IMPACT

5 / 5

EVIDENCE

5 / 5

How to implement

Maintain a distance of at least 6 feet from people who are showing symptoms of respiratory illness, such as coughing or sneezing. This should be done continuously, especially during outbreaks of contagious diseases, until public health officials declare it safe to resume normal interactions.

Description

Avoiding close contact with infected people is essential to prevent the spread of contagious diseases. Many infections, including respiratory viruses, are transmitted through respiratory droplets expelled during close interactions. Maintaining distance helps reduce the risk of exposure, protecting individuals from contracting and spreading illnesses.

This practice is particularly important during outbreaks or pandemics, as it contributes to breaking the chain of transmission and safeguarding public health.

How it helps

To help prevent EBV infection, you should avoid the following activities involving people with active or recent EBV infection [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Kissing
- Sharing personal objects (e.g., toothbrushes, drinking glasses, dishes)
- Sharing drinks and food
- Sexual contact

2



Good Hygiene Practices

IMPACT

5 / 5

EVIDENCE

5 / 5

How to implement

Wash your hands with soap and water for at least 20 seconds, especially before eating, after using the restroom, and when returning home. Shower or bathe daily using soap, focusing especially on areas that produce more sweat. Brush your teeth twice a day with fluoride toothpaste and floss daily to maintain oral hygiene.

TYPICAL STARTING DOSE

20 seconds

Description

Good hygiene practices, such as regular handwashing and proper sanitation, are essential for preventing the spread of infections and maintaining public health. Adhering to good hygiene habits can reduce the risk of illness and promote general well-being.

Good hygiene practices involve keeping your body and environment clean. Everyday, we get in contact with millions of germs. Neglecting hygiene practices creates an ideal environment for these germs, increasing the risk of infections.

Personal hygiene is the action of maintaining the body clean and healthy. Good practices include:

- Showering or bathing at least every other day
- Washing your hands multiple times a day
- Brushing your teeth at least twice a day
- Trimming and brushing your nails regularly

Domestic hygiene includes all the work done to keep people’s clothes, beddings, and houses clean.

Poor hygiene is associated with an increased risk of [\[R\]](#):

- **Respiratory infections**
- Gastrointestinal infections
- Athlete’s foot
- Head, body, and pubic lice
- Tooth decay
- Hot tub rash
- Pinworms
- Scabies
- Swimmer’s ear
- Ringworms

How it helps

To help prevent EBV infection, you should avoid the following activities involving people with active or recent EBV infection [\[R, R, R, R, R\]](#):

- Kissing
- Sharing personal objects (e.g., toothbrush, drinking glasses, dishes)
- Sharing drinks and food
- Sexual contact
- Blood transfusions

If you are infected with EBV virus [\[R, R, R\]](#):

- Wash your hands regularly to prevent spread of the virus
- Use a mouthwash (20 mL, 2x/day for 8 weeks) to reduce the viruses in your mouth

3



Avoid Strenuous Activity

IMPACT2 / 5

EVIDENCE4 / 5

How to implement

Refrain from participating in high-intensity physical activities such as running, heavy weightlifting, and high-impact sports. Opt instead for low-impact exercises like walking, swimming, or yoga. It's important to listen to your body's signals and rest as needed, avoiding these strenuous activities until advised otherwise by a health professional.

Description

Avoiding strenuous physical activity in certain medical conditions or during illness can help prevent injury and promote better recovery. It allows the body to conserve energy and supports the healing process.

Strenuous activity is physical activity that requires a lot of effort. Exercise done at 70-85% of a person’s heart rate is considered strenuous. Examples include [\[R\]](#):

- Running, cycling, or swimming at high speed
- Running or hiking uphill
- Jumping rope
- Single tennis
- Sports that involve a lot of running (soccer, basketball, hockey, etc.)

On the other hand, strenuous daily activities include [\[R\]](#):

- Lifting and carrying heavy objects
- Gardening with heavy digging
- Shoveling snow
- Fast dancing

How it helps

Getting plenty of rest for at least 2 weeks may speed up recovery. You may also want to avoid strenuous activities for at least 4 weeks, including [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heavy lifting
- Roughhousing
- Contact sports

Avoiding strenuous activities may also protect your spleen from getting injured. This is crucial because many people with EBV infection have enlarged spleen [\[R\]](#).

4



Drink at Least 8 Glasses of Water a Day

IMPACT

2 / 5

EVIDENCE

4 / 5

How to implement

Consume a total of at least 64 ounces (or approximately 1.9 liters) of water over the course of the day. This can be divided into 8 glasses, each containing 8 ounces of water. Aim to drink evenly throughout the day to avoid dehydration.

Description

Water is an essential nutrient for nearly every process in your body, helping to mainting brain and gut function, maintain a health weight, as well as energy and performance levels, among others.

Water is essential for life. It supports nearly every process in your body [\[R\]](#).

Water helps maintain [\[R\]](#):

- Energy and performance levels
- Brain function
- Gut function
- Healthy weight

Most experts recommend drinking **around 8 glasses (64 oz. or 2 L) of water daily**. You might need more or less than this, depending on how active you are, where you live, or what your overall health is like [\[R\]](#).

How it helps

In people with EBV infection, drinking lots of fluids (e.g., water and fruit juices) can prevent dehydration and relieve a fever and sore throat [\[R, R, R\]](#).

5

Safer Sex Practices

IMPACT1 / 5

EVIDENCE3 / 5

How to implement

Use latex condoms every time you have vaginal, anal, or oral sex. Reduce the number of sexual partners you have, and get tested regularly for sexually transmitted infections (STIs), ideally every 3 to 6 months if you're sexually active with new or multiple partners.

Description

Safer sex practices refer to using barrier methods like condoms or dental dams during sexual activity to reduce the risk of sexually transmitted infections (STIs) and unintended pregnancies. They are essential for promoting sexual health and preventing the transmission of STIs.

Safer sex practices help reduce the risk of chlamydia and other STDs. They include [\[R\]](#), [\[R\]](#):

- Using a condom for all types of sex
- Limiting the number of sex partners (ideally to one)
- Discussing past partners, STDs, and drug use
- Avoiding alcohol and drug use
- Avoiding douching after intercourse
- Getting regular screenings

Using a condom helps prevent chlamydia in men and women. A **combination of male and female condoms** may be the safest option [\[R\]](#), [\[R\]](#).

Women using **birth control pills** may have **3 times higher** risk of chlamydia compared to those using condoms [\[R\]](#).

In men who have sex with men, using **pre-exposure prophylaxis (PrEP) for HIV** may be linked to **11 times higher** risk of chlamydia. Reduced condom use may be one of the reasons for this rise [\[R\]](#), [\[R\]](#), [\[R\]](#).

Men who go to sex workers may have a **2.5 times higher** risk of chlamydia [\[R\]](#).

How it helps

EBV can spread through blood and semen during sexual contact [\[R\]](#).

Sexual contact usually involves kissing, which is a common way of spreading the virus. In line with this, increased sexual activity may be linked to EBV infection [\[R\]](#).

Experts recommend safer sex practices like using a condom and limiting the number of partners to prevent infections [\[R\]](#).

6



Relaxation Techniques

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate relaxation techniques such as deep breathing exercises, meditation, or yoga into your daily routine. Spend at least 15-30 minutes each day practicing one of these techniques, preferably in a quiet, comfortable space without interruptions.

TYPICAL STARTING DOSE

30 minutes

Description

Relaxation techniques encompass various methods like deep breathing, yoga, meditation, and progressive muscle relaxation, aimed at reducing stress and promoting mental and physical relaxation. Practicing these techniques regularly can help manage stress, improve mental clarity, and enhance overall emotional well-being.

We all get stressed from time to time.

[Stress](#) can help you deal with a challenge or avoid danger. However, **it’s not healthy to be stressed for a long time** [\[R\]](#), [\[R\]](#).

Relaxation techniques such as [yoga](#) and [meditation](#) can relieve stress in different ways. Most of them focus on breathing and help you get rid of negative thoughts and emotions [\[R\]](#).

People use relaxation techniques to improve conditions like [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Anxiety
- Depression
- Chronic pain

Progressive muscle relaxation is another relaxation technique. In this technique, you focus on tensing and relaxing different parts of your body. It is common to start with the toes and slowly work your way up to the neck and head [\[R\]](#), [\[R\]](#).

Autogenic training is a relaxation technique that a person may carry out on their own. It uses exercises that take the mind’s attention to bodily sensations such as warmth and heaviness [\[R\]](#), [\[R\]](#).

How it helps

According to one study, psychological stress may be linked to EBV infection. By contrast, reduced stress through adequate support from family and friends may reduce signs of EBV infection [\[R\]](#).

7



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 warm salt water (several times/day) may help relieve a sore throat caused by mononucleosis. It may help by [\[R\]](#), [\[R\]](#):

- Reducing viral particles
- Relieving inflammation

8



Chlorhexidine Mouthwash

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Use chlorhexidine mouthwash by rinsing with 10-15 ml (about two teaspoons) of the solution for 30 seconds twice daily, morning and evening, after brushing your teeth. Do this for up to two weeks or as directed by your dentist.

TYPICAL STARTING DOSE
10 ml

Description

Chlorhexidine mouthwash is an antiseptic solution used to reduce plaque and prevent gum disease and oral infections. It can be recommended by dentists to improve oral hygiene and maintain healthy gums and teeth.

How it helps

Using a mouthwash (20 mL, 2x/day for 8 weeks) may reduce the viruses in your mouth, potentially reducing the risk and severity of an EBV infection [R, R, R].

9



Astragalus

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 500 mg astragalus supplement once daily with a meal. Continue this regimen for at least 4 to 6 weeks to evaluate its effectiveness on your overall health.

TYPICAL STARTING DOSE
500 mg

Description

Astragalus is an herb used in traditional Chinese medicine. It is believed to have immune-boosting properties and may help reduce stress and support overall vitality.

[Astragalus](#) (*Astragalus membranaceus*) is an herb used in traditional Chinese medicine. It is commonly used for “tonifying Qi” or fatigue. It may help [R, R]:

- Reduce inflammation
- Fight [oxidative stress](#)

Astragalus root is a staple of traditional Chinese medicine, where it is also known as *Huang Qi*.

How it helps

Astragalus has immunomodulatory properties, which may support the immune system's natural function to manage infections.

10



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 plays a vital role in immune function and may help mitigate the impact and duration of viral infections.

11



Avoid Deep Kissing

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from engaging in deep kissing with any partners, particularly if either you or they are currently ill or have a high risk of transmitting infectious diseases. Continue this practice until the risk of infection is deemed low by healthcare professionals.

Description

Avoiding deep kissing with multiple partners or individuals with unknown health status can lower the risk of contracting infections transmitted via saliva.

How it helps

Avoiding deep kissing when you have an EBV infection helps prevent transmission because the virus is commonly spread through saliva. Keeping contact to a minimum with others, especially involving saliva exchange, helps both to protect them and to avoid getting infected again.

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.

	Zinc	17.12 umol/L		9 Nov 2025
	Platelet Count	215 x10^3/mm3		9 Nov 2025
	Vitamin D, 25-Hydroxy, Total	58.59 ng/mL		9 Nov 2025
	Albumin	4.3 g/dL		9 Nov 2025