

HPV Infection

DNA Health Report

REPORT CATEGORIES —



IMMUNITY &
INFECTIONS



SEXUAL HEALTH

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

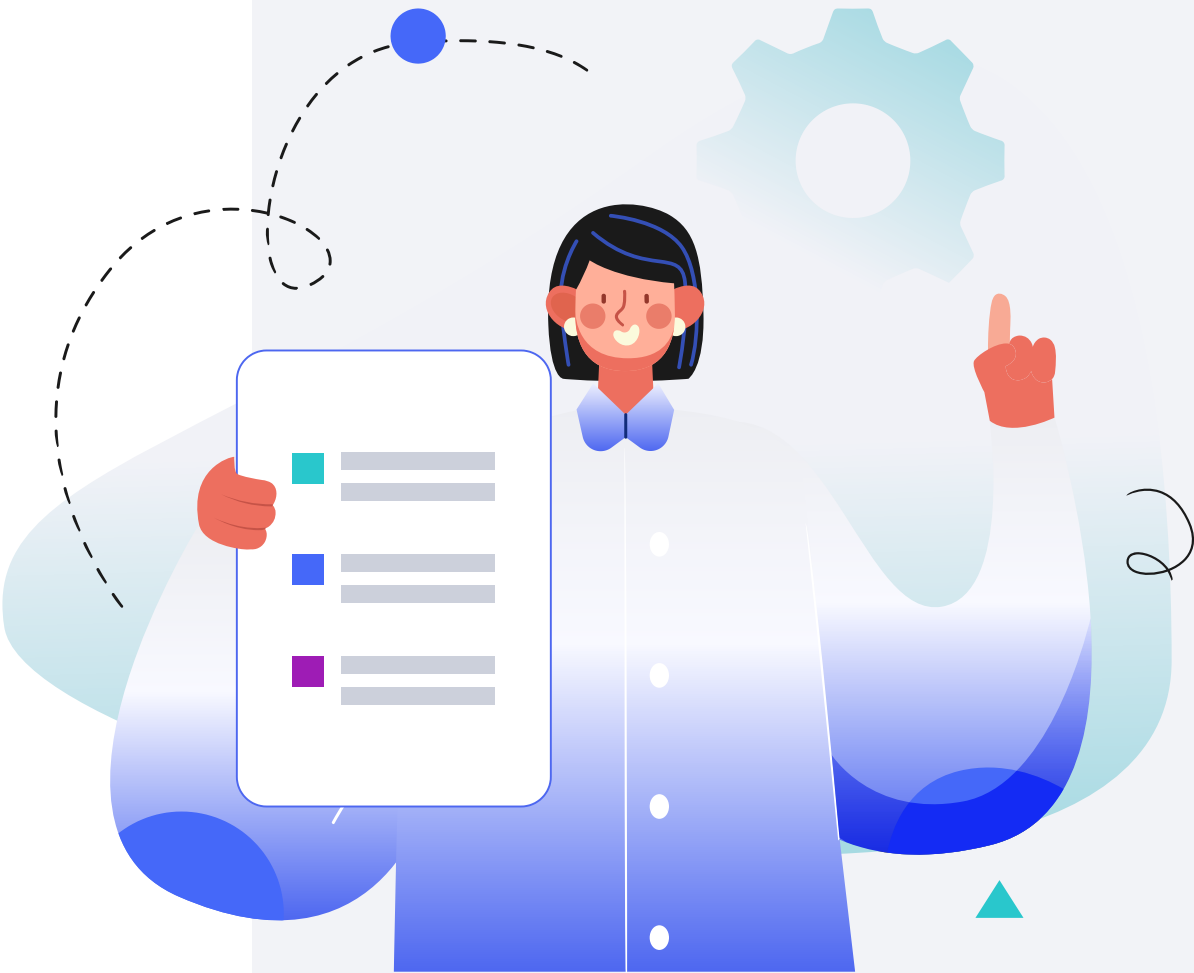
Male

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

HPV infection is a common, sexually transmitted infection (STI) caused by the human papillomavirus. The infection can also spread through other types of skin-to-skin contact. It can affect the skin and mucous membranes of the genitals, anus, mouth, and throat [\[R\]](#).

There are dozens of types of HPV. Many of them can cause warts, while others are linked to cancer, particularly cervical cancer. On the other hand, some appear to be harmless [\[R\]](#).

Warts are the most common sign of HPV infections. They include:

- Genital warts
- Common warts, usually appearing on hands and fingers
- Plantar warts, usually appearing on the heels or balls of the feet
- Flat warts, appearing on the face (in children and men) or legs (in women)

If you notice warts on your body or suspect HPV infection for another reason, speak with your healthcare professional.

Risk Factors and Genetics

HPV infection is a common, sexually transmitted infection (STI) caused by the human papillomavirus.

Risk factors for HPV infection include [\[R\]](#):

- **Risky sexual behavior**
- Age (childhood for common warts; early adulthood for genital warts)
- Weakened immune system
- Damaged skin
- Personal contact with an infected person
- Contact with contaminated surfaces

Genetics also plays a role in HPV infection. Involved genes may influence [\[R\]](#):

- Cell growth and division
- The immune response against microbes
- DNA repair



TYPICAL LIKELIHOOD

Typical likelihood of getting HPV infection based on 105,944 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
DOK5	rs1293153	GG
RHOBTB1	rs145804860	CT
ABHD2	rs405103	CC
GPR26	rs78231715	CC
MPZL2	rs145674624	GG
TCERG1L	rs186242350	CC
FDX1	rs74572764	TT
KAT6B	rs192376670	CC
CHAT	rs144802194	CC
PPIF	rs114574602	CC
TCF7L2	rs11196144	CC
FAR1	rs146644242	CC
DDI1	rs117507333	TT
GDPD5	rs139493418	TT
DLG2	rs182189934	CC
ARHGAP20	rs142501564	TT
C10ORF67	rs74896095	GG
NCAM1	rs190991582	TT
/	rs79520499	TT
PPP1R3C	rs181741419	AA
TCF7L2	rs140908036	GG
API5	rs188420868	AA
GVQW3	rs139770607	TT
ANO3	rs11029520	CC

GENE	SNP	GENOTYPE
ZMIZ1	rs145501236	GG
PDGFD	rs117185126	CC
LRRC4C	rs112226734	GG
RNF141	rs117585791	CC
NLRP14	rs138514353	TT
TIMM10B	rs190903453	AA
ARHGAP21	rs147155661	CC
RPS13	rs150537264	GG
ALOX5	rs571892612	CC
NRG3	rs150769113	AA
ARHGAP20	rs139035231	CC
LUZP2	rs117543902	CC
/	rs72949969	TT
RBMXL2	rs188688339	TT
GATA3	rs543429381	CC
TEX36	rs143585831	GG

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	Safer Sex Practices	2	Podophyllotoxin
3	Polyphenon E	4	Topical Retinoids
5	Zinc	6	Avoid Douching
7	Microneedling	8	Lycopene
9	Mediterranean Diet	10	Dietary Vitamin K
11	Dietary Calcium	12	Zinc Sulfate
13	Papaya	14	Myrtle Suppositories
15	Echinacea	16	Red Light Therapy
17	Turkey Tail Mushroom	18	Good Oral Hygiene
19	Green Tea	20	Fruits And Vegetables
21	Green Tea Extract		

1



Safer Sex Practices

IMPACT

5 / 5

EVIDENCE

5 / 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

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

- Using a latex 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

In women, having **more than two lifetime sexual partners** may raise the risk of HPV infection by **86%**. In line with this, genital warts are much more common among female sex workers [\[R\]](#), [\[R\]](#).

2



Podophyllotoxin

IMPACT

4 / 5

EVIDENCE

5 / 5

How to implement

Apply a small amount of podophyllotoxin solution or cream directly to the affected area using the applicator provided or a cotton swab. Use it twice a day for 3 days, followed by 4 days without treatment. This one-week cycle may be repeated up to 4 times, or as directed by a healthcare professional. Avoid contact with healthy skin around the area and do not cover with a bandage unless instructed by a doctor.

Description

Podophyllotoxin is a natural compound derived from certain plant species, including the Mayapple plant (*Podophyllum peltatum*). It has been used in topical medications to treat warts, due to its potential antiviral properties.

Podophyllotoxin (PPT) is a substance extracted from the roots of *Podophyllum* plants. It is the active ingredient in medical creams and solutions used to treat **external warts** caused by HPV infection [R].

How it helps

Topical podophyllotoxin (0.5% solution or cream) is an FDA-approved drug for anal and genital warts caused by HPV infection [R, R, R, R, R].

It may help by destroying wart tissue [R].

Please note: *Podophyllotoxin must not be used during pregnancy. If ingested, it can have major adverse effects. Make sure to consult your doctor before using podophyllotoxin (Condylox, Podofilox) [R].*

3



Polyphenon E

IMPACT

4 / 5

EVIDENCE

5 / 5

How to implement

Take Polyphenon E capsules orally, following the dosage prescribed by your healthcare provider, usually once or twice a day. It is important to follow the medical advice specifically tailored for your condition and not to exceed the recommended dose.

Description

Polyphenon E is a standardized green tea extract containing high levels of polyphenols, including epigallocatechin gallate (EGCG). It is known for its antioxidant properties and potential health benefits, including supporting cardiovascular health and reducing the risk of oxidative damage to cells.

Polyphenon E is an ointment made from green tea extract. It contains green tea catechins, which reduce oxidative stress and suppress microbial growth [R].

Doctors prescribe Polyphenon E to treat external warts in people with HPV infection [R].

How it helps

Polyphenon E ointment (15%) is an FDA-approved drug for anal and genital warts in people with HPV infection [R, R, R].

Green tea catechins from Polyphenon E reduce oxidative stress and suppress microbial growth [R].

4

Topical Retinoids

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Apply a pea-sized amount of topical retinoid to clean, dry skin once every evening before moisturizing. Start with applications 2-3 times a week, gradually increasing to nightly use as your skin tolerates it.

Description

Retinoids are a class of vitamin A derivatives used topically for their ability to address various skin concerns, including acne, fine lines, and hyperpigmentation. They work by promoting cell turnover and collagen synthesis.

Retinoids are compounds related to [vitamin A](#). They include [\[R\]](#):

- Vitamin A (retinol)
- Natural vitamin A derivatives (retinoic acid, retinaldehyde, retinyl esters)
- Synthetic derivatives (tretinoin, isotretinoin, etretinate, tazarotene)

Retinoids control the growth of the skin and blood vessels. People apply topical retinoids to improve skin conditions such as [\[R\]](#):

- **Wrinkles**
- Acne
- Psoriasis
- Eczema
- Skin cancers

Please note: Topical synthetic retinoids are prescription drugs and should only be used if prescribed by a doctor. They can have significant side effects. Natural retinoids are much safer and available in different OTC cosmetic products.

How it helps

Topical retinoids may help with viral warts in about 65% of cases. In some of them, the warts might return [\[R\]](#), [\[R\]](#).

Retinoids may help by promoting skin repair [\[R\]](#), [\[R\]](#).

Please note: *Topical retinoids may cause skin dryness, burning, itching, and swelling at the site of application. It is recommended to start with the lowest dose and frequency of application, and gradually increase them as tolerance develops. Because retinoids increase skin sensitivity to sunlight, people on retinoid therapy are recommended to limit sun exposure. Pregnant women shouldn't use topical retinoids because they may increase the risk of malformations* [\[R\]](#).

5

Zinc

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

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

TYPICAL STARTING DOSE

10 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

Supplementing with zinc sulfate for 1-3 months may [\[R\]](#), [\[R\]](#):

- Reduce the risk of HPV infection
- Improve warts caused by HPV infection
- Reduce progression to cervical lesions

[Zinc](#) may help by reducing oxidative stress and supporting the immune system [\[R\]](#), [\[R\]](#).

Please note: *A high intake of zinc may cause stomach pain and gut irritation. Adults should not ingest more than **40 mg** of zinc per day* [\[R\]](#), [\[R\]](#).

6



Avoid Douching

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Stop using any douching products, whether vaginal or rectal, immediately and do not start this practice. Instead, maintain natural balance and cleanliness through regular bathing with water and mild soap if necessary, avoiding inserting any substances or products into the body.

Description

Douching is washing or cleaning out body cavities with water or other mixtures of fluids. It usually refers to vaginal douching. Experts however, recommend against douching because it can lead to health problems, such as vaginal infections, STD's, and difficulties getting pregnant.

Douching is washing or cleaning out body cavities with water or other mixtures of fluids. It usually refers to vaginal douching.

This practice is common in women. However, **experts recommend against douching** because it can lead to health problems, including [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Difficulty getting pregnant
- Vaginal infections
- Sexually transmitted diseases (STDs).

How it helps

Experts recommend against douching because it raises the risk of STDs [\[R\]](#).

Women who practice douching may have up to **40% higher** risk of HPV infection [\[R\]](#).

Rectal douching is linked to a **2.5 times higher** risk of HPV infection in men who have sex with men [\[R\]](#).

7



Microneedling

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

To implement microneedling as a lifestyle recommendation for skin rejuvenation or scar treatment, use a dermaroller or microneedling device with needles of 0.2 to 1.0 mm in length, depending on the treatment area and sensitivity of your skin. Gently roll the device over the target area in a criss-cross pattern, ensuring to cover all desired areas, typically once every 2 to 4 weeks. Cleanse the skin and device before and after each use to prevent infection.

Description

Microneedling is a minimally invasive procedure that uses tiny needles to create tiny punctures in the skin. This can help to stimulate collagen production, improve skin texture, and reduce the appearance of scars.

How it helps

In a study involving 60 patients with plantar warts, mitomycin microneedling (76.7% complete cure) outperformed liquid nitrogen cryotherapy (56.7% effectiveness). Mitomycin microneedling achieved complete remission in 2-3 sessions, whereas cryotherapy required approximately 4 sessions, with microneedling being better tolerated [\[R\]](#).

Another trial with 90 patients compared microneedling alone, microneedling combined with 5-fluorouracil solution, and intralesional 5-fluorouracil injection for plantar warts treatment. The combination of microneedling and 5-FU solution showed a complete response in 86.7% of cases, surpassing intralesional 5-FU (76.7%) and microneedling alone (70%). Pain was lower in the combination group, and no recurrence was reported, suggesting that microneedling is a valuable option for plantar warts treatment [\[R\]](#).

8



Lycopene

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take a lycopene supplement of 10 to 30 mg per day. It can be consumed with a fat-containing meal to enhance absorption. This supplementation can be ongoing daily to support overall health benefits such as heart health and antioxidant protection.

TYPICAL STARTING DOSE

10 mg

Description

Lycopene is a powerful antioxidant found in tomatoes and other red or pink fruits and vegetables. Consuming lycopene-rich foods may help reduce the risk of chronic diseases and support heart and prostate health.

[Lycopene](#) is a bright red substance that gives color to a number of fruits such as [R](#), [R](#):

- Tomato
- Watermelon
- Papaya
- Apricot

Lycopene has antioxidant properties. It may help support [R](#), [R](#), [R](#):

- Heart health
- Prostate health
- Cognition

How it helps

Higher blood levels of [lycopene](#) may be linked to:

- A **56% lower** risk of persistent HPV infection in women [R](#)
- Up to **3 times better** HPV infection removal [R](#), [R](#)

You can get lycopene from food sources such as [R](#), [R](#):

- Tomato
- Watermelon
- Papaya
- Apricot
- Grape
- Peach
- Cranberry

It’s also available as a supplement.

9



Mediterranean Diet

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate a variety of primarily plant-based foods, such as fruits, vegetables, whole grains, nuts, and legumes, into every meal. Choose healthy fats, like olive oil, over saturated fats and consume fish and poultry at least twice a week. Limit red meat to a few times a month and include a moderate amount of dairy products. Opt for water and red wine in moderation as your beverages.

Description

The [Mediterranean diet](#) is based on the traditional cuisine from the Mediterranean regions. It moderates the intake of red meat and dairy, while being rich in fruits and vegetables, whole grains, and healthy fats ([olive oil](#)).

The [Mediterranean diet](#) focuses on traditional cuisine from the Mediterranean regions. It’s rich in [\[R\]](#):

- [Olive oil](#)
- Fruits and vegetables
- Whole grains
- Nuts and seeds
- Fish

This type of diet may **reduce inflammation and protect the brain and heart** [\[R, R, R, R\]](#).

Limited intake of animal products, saturated fat, and refined sugar likely contribute to the health benefits of the Mediterranean diet [\[R\]](#).

How it helps

The [Mediterranean diet](#) is rich in foods and nutrients that support immunity and reduce inflammation [\[R, R\]](#).

Following the Mediterranean diet may be linked to a **2.5 times lower risk** of HPV infection in women. On the other hand, Western-style diets may be linked to higher odds of the infection [\[R\]](#).

10



Dietary Vitamin K

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Incorporate foods high in Vitamin K into your daily diet, such as green leafy vegetables (kale, spinach, broccoli), fish, liver, meat, and eggs. Aim to include at least one serving of these foods in each meal, amounting to 3 servings per day.

Description

Vitamin K is essential for blood clotting and bone health. It helps prevent excessive bleeding and contributes to the development and maintenance of strong bones.

[Vitamin K](#) is essential for blood clotting and bone formation [\[R\]](#).

Good sources of vitamin K include leafy greens, soy products, and carrots [\[R, R\]](#).

How it helps

Women with a higher vitamin K intake may have a lower risk of HPV infection [\[R\]](#).

Good sources of [vitamin K](#) include [\[R, R\]](#):

- Green leafy vegetables, such as kale, spinach, and collards
- Soy products, such as natto, roasted soybeans, and edamame
- Carrot juice
- Pumpkin

Healthy adults should get **120 micrograms** of vitamin K per day [\[R\]](#).

Please note: *Vitamin K can interact with blood thinners (e.g., Coumadin). Make sure to consult your doctor before supplementing with vitamin K or drastically changing your dietary intake.*

11



Dietary Calcium

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

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

Description

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

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

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

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

How it helps

Women with an adequate calcium intake may have a lower risk of HPV infection [\[R\]](#).

[Calcium](#) can be found in a variety of foods, including [\[R\]](#):

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

12



Zinc Sulfate

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Take zinc sulfate as a dietary supplement by swallowing one 220 mg tablet (equivalent to 50 mg elemental zinc) with water, once daily, preferably with a meal to avoid stomach upset. This regimen can be followed for up to 2 weeks unless advised differently by a healthcare professional.

TYPICAL STARTING DOSE

220 mg

Description

Zinc sulfate is a chemical compound containing zinc and sulfur, used in dietary supplements to address zinc deficiencies, boost immune function, and support skin health. It's employed in medical settings to treat conditions like Wilson's disease and zinc deficiency-related disorders.

How it helps

In a placebo-controlled trial of 80 zinc-sufficient women with HPV infection and cervical lesions, supplementation with zinc sulfate for 3 months increased HPV clearance and cervical lesion resolution [R].

Zinc plays a vital role in immune function and the body’s defense against pathogens.

How to implement

TYPICAL STARTING DOSE

500 mg

Description

People enjoy the great taste of papaya. It's also rich in healthy nutrients that may support the immune system.

How it helps

- A lower risk of HPV infection [\[R\]](#)
- Lower rates of precancerous changes on the cervix [\[R\]](#)

A supplement containing papaya and other ingredients may help prevent anal warts from coming back after a surgery. However, it's not sure if and how much papaya contributed to this benefit [R].

Papaya may help by boosting the immune response and reducing oxidative stress [[R](#), [R](#)].

14



Myrtle Suppositories

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Insert one myrtle suppository into the rectum before bedtime daily for a duration of 14 days.

Description

Myrtle suppositories are products containing myrtle essential oil from the myrtle shrub, that can be inserted into the body for various therapeutic purposes, like acne, canker sores, heavy periods, heartburn, warts, and more.

Myrtle (*Myrtus communis*) is a shrub used in traditional Persian medicine. Chemicals in myrtle may help combat microbes and reduce swelling [\[R\]](#).

People use myrtle for acne, canker sores, heavy periods, heartburn, warts, and more [\[R\]](#).

How it helps

According to a single study, using **vaginal suppositories with myrtle** (10% aqueous extract and 0.5% essential oil) for 3 months may [\[R\]](#):

- Promote HPV infection clearance
- Reduce cervical lesions

15



Echinacea

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.

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 125 patients with HPV infection](#), supplementation with the dry extracts of *E. angustifolia* and *E. purpurea* (200 mg/day) for 4 months **reduced the relapse of genital condylomas** [\[R\]](#).

Echinacea can boost immune system health, helping your body fight off the HPV infection. However, echinacea is not a direct cure for HPV, and should not be relied upon as sole treatment.

16



Red Light Therapy

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Position yourself or the specific area of your body that needs treatment about 6 inches away from a red light therapy device. Use the device for 10 to 20 minutes daily. It is recommended to continue this daily regimen for at least several weeks to notice benefits.

TYPICAL STARTING DOSE

20 minutes

Description

Red light therapy involves exposure to low-level red or near-infrared light, which may promote skin rejuvenation, reduce inflammation, and improve circulation when used for therapeutic purposes in skin care and wellness treatments.

How it helps

In HPV patients, 3 months of red light treatment helped **eradicate the human papillomavirus** from their body. However, it is possible to be re-infected after light treatment is finished [\[R\]](#).

17



Turkey Tail Mushroom

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a turkey tail mushroom supplement in capsule or powder form, usually ranging between 1,000 to 3,000 mg per day. Divide this dosage into two to three separate doses to be taken with meals throughout the day. Continue this regimen daily for immune support or as directed by a healthcare provider.

TYPICAL STARTING DOSE

1000 mg

Description

Turkey tail mushrooms (*Trametes versicolor*) are a type of mushroom that grows on decaying wood in various parts of the world. They are valued for their potential health benefits due to the presence of compounds like polysaccharopeptide (PSP) and polysaccharide-K (PSK), which have been studied for their immune-boosting properties and potential use in supporting cancer treatment.

How it helps

In a non-placebo-controlled trial of 91 HPV-positive women with low-grade Pap smear alterations and consistent colposcopy, applying a vaginal gel with turkey tail mushroom for 6 months helped treat HPV-related cervical lesions and clear HPV strains [\[R\]](#).

The combination of turkey tail mushroom and *Ganoderma lucidum* taken for 2 months cleared oral HPV in 88% of cases in a non-placebo-controlled trial of 61 HPV-positive patients [\[R\]](#).

Turkey tail mushroom contains compounds like polysaccharopeptide that can boost the immune system and potentially fight HPV.

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Good Oral Hygiene

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Brush your teeth at least twice a day for two minutes each time using fluoride toothpaste. Floss daily to remove plaque from places your toothbrush can't reach and consider using mouthwash. Visit your dentist at least twice a year for professional cleanings and checkups.

TYPICAL STARTING DOSE

2 minutes

Description

Good oral hygiene, which includes regular brushing, flossing, and dental check-ups, is crucial for preventing tooth decay, gum disease, and maintaining overall oral health. A healthy mouth contributes to overall well-being and can prevent dental issues that may impact systemic health.

Oral hygiene refers to practices that keep the mouth healthy. Good habits include [R](#), [R](#):

- Gently brushing the teeth and tongue for two minutes, at least twice a day
- Flossing daily
- Using a toothpaste with fluoride and a soft toothbrush
- Replacing a worn toothbrush at least every 3 months

To help maintain good oral hygiene, it is also important to regularly see dental professionals. They can help prevent and address issues with your teeth and gums.

How it helps

Good oral hygiene can reduce the possibility of oral HPV infections and is beneficial overall for oral health.

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Green Tea

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume 400 mg of green tea extract daily. This can be taken in the form of capsules or tablets available that specify the amount of green tea extract. Ensure the supplement is taken according to the product's specific instructions, usually once a day with water.

TYPICAL STARTING DOSE

400 mg

Description

Tea is a beverage made by steeping the leaves of the *Camellia sinensis* plant in hot water. It comes in various types, including black, green, white, and herbal teas, and is known for its diverse flavors and potential health benefits due to antioxidants and other bioactive compounds.

[Green](#) and black tea are made from the same plant (*Camellia sinensis*). This plant is processed in different ways to make each type of tea [\[R, R\]](#).

Tea contains antioxidants called **flavonoids**, which may help prevent [\[R, R, R, R\]](#):

- Heart disease
- Cancer
- Diabetes

How it helps

The catechins in green tea possess antiviral properties that may provide some benefit against viral infections.

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Fruits And Vegetables

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Increase your intake of fruits and vegetables to at least five servings per day, aiming for a variety of types and colors to ensure a broad range of nutrients. Each serving size should roughly be the amount you can fit in one hand. Try to incorporate at least one serving of fruits or vegetables into every meal and snack throughout the day.

Description

A diet rich in fruits and vegetables provides essential nutrients, antioxidants, and dietary fiber. This combination supports overall health, helps maintain a healthy weight, and reduces the risk of chronic diseases such as heart disease and certain cancers.

How it helps

Eating a variety of fruits and vegetables can provide essential vitamins, minerals, and antioxidants that can help support the body's immune system.

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Green Tea Extract

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a green tea extract supplement containing 250-500 mg of EGCG (the active compound in green tea) daily, preferably with a meal to enhance absorption. This dosage is typically split into two separate doses, taken in the morning and later in the day. Continue this regimen for at least three months to observe potential health benefits.

TYPICAL STARTING DOSE

250 mg

Description

Green tea extract is a concentrated form of the beneficial compounds found in green tea, such as catechins. It is used in dietary supplements for its potential to enhance metabolism, aid in weight management, and provide antioxidant protection.

[Green tea](#) is made from the same plant as black tea (*Camellia sinensis*). However, the leaves and buds are processed differently [\[R\]](#).

Green tea contains **catechins**. These are antioxidants that help prevent [oxidative stress](#) [\[R\]](#).

EGCG is the main catechin found in green tea. It may help reduce inflammation and support weight loss [\[R\]](#).

How it helps

Green tea extract contains compounds that have been shown to exhibit antiviral activities.

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 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.



Your Lifestyle Assessments

Ever heard of the term Nature vs. Nurture?

The thing is, both DNA and environment play a role in determining your health risks. The following assessments shows how much of an impact your lifestyle, environment and medical history are having on your health risks.

✓

LIFESTYLE

You have a **reduced risk** of hpv infection based on the answers you provided.

Your Lifestyle Risk

Low

Decreased

Average

Increased

High

Factors impacting your risk:

Did you have sexual intercourse before the age of 16?	Decreasing Risk ✓
No	
Have you ever been diagnosed with chlamydia?	Decreasing Risk ✓
No	
How many sexual partners have you had in your lifetime?	Decreasing Risk ✓
2-5	
Did you complete 12 or more years of education?	Decreasing Risk ✓
Yes	
Do you smoke tobacco?	Decreasing Risk ✓
No, never	
What is your primary method of birth control?	Decreasing Risk ✓
Condom	
Do you regularly use a vaginal douche?	Decreasing Risk ✓
No	
What is your sex?	No impact -
Male	