

Malaria

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

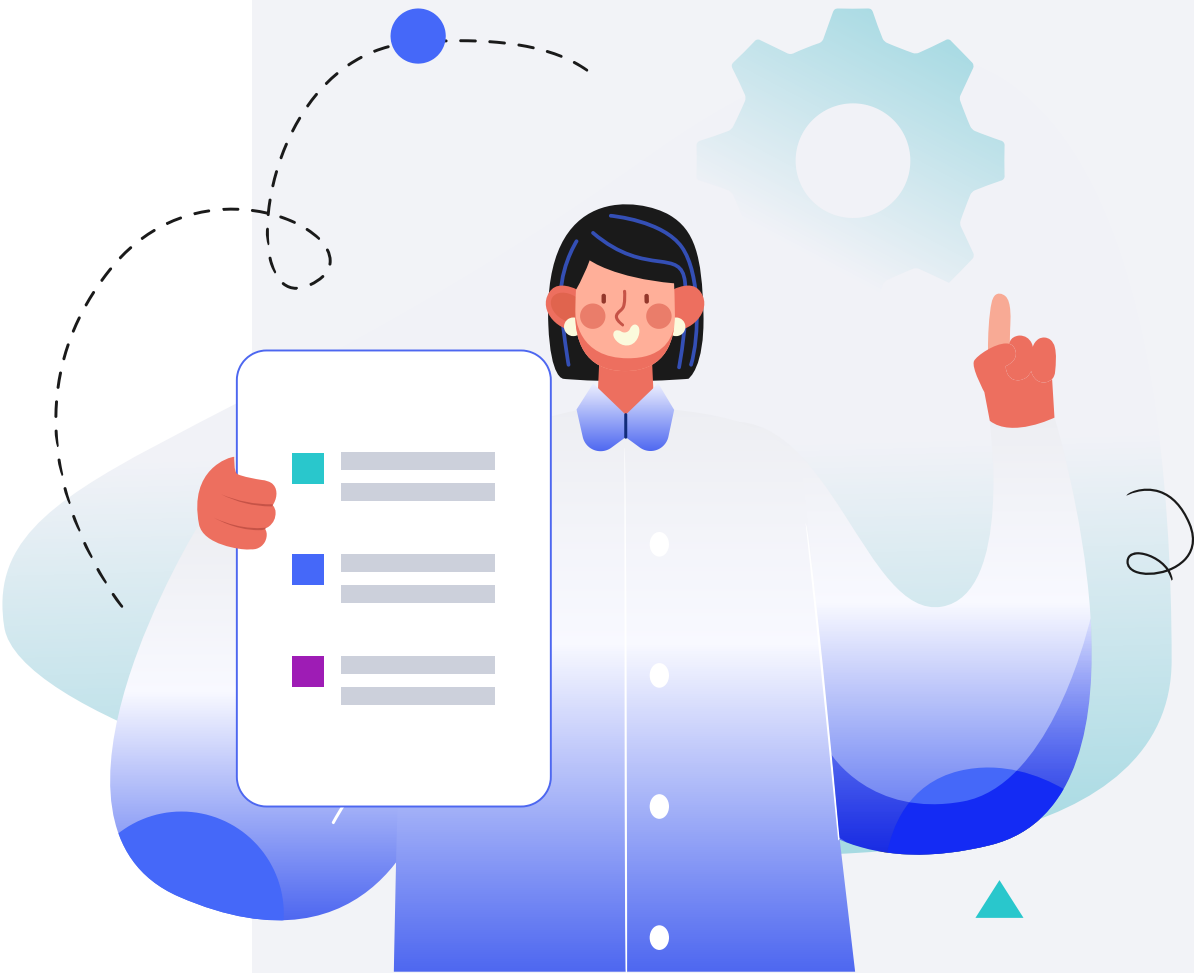
5ft 5" 165cm

WEIGHT

137lb 62kg

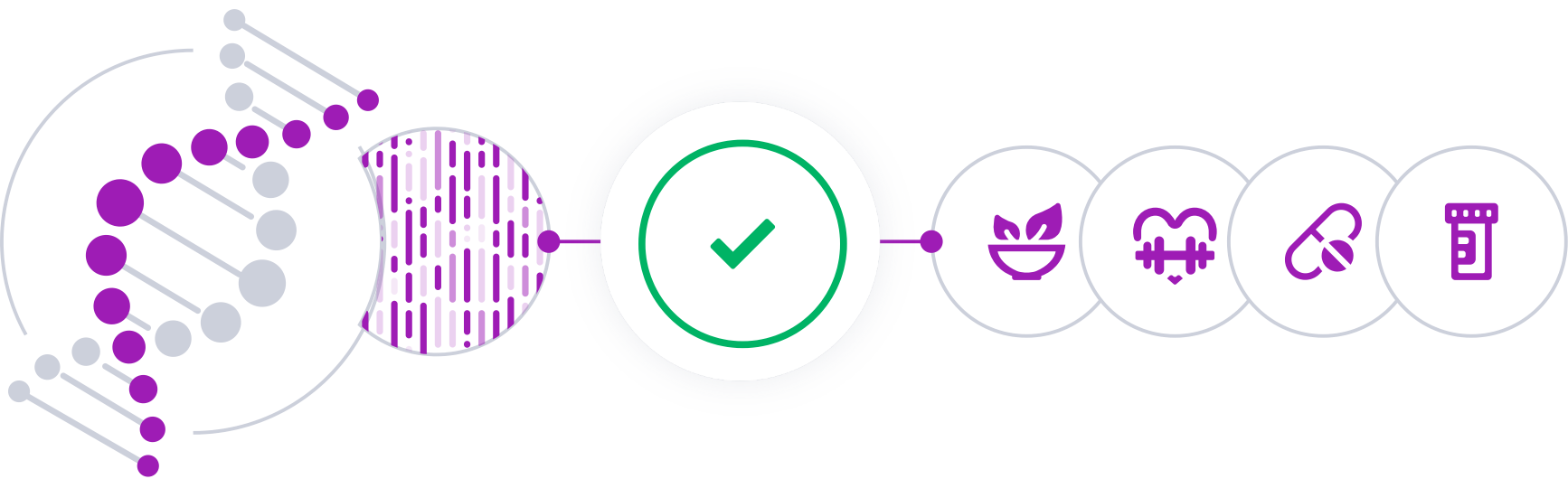
DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

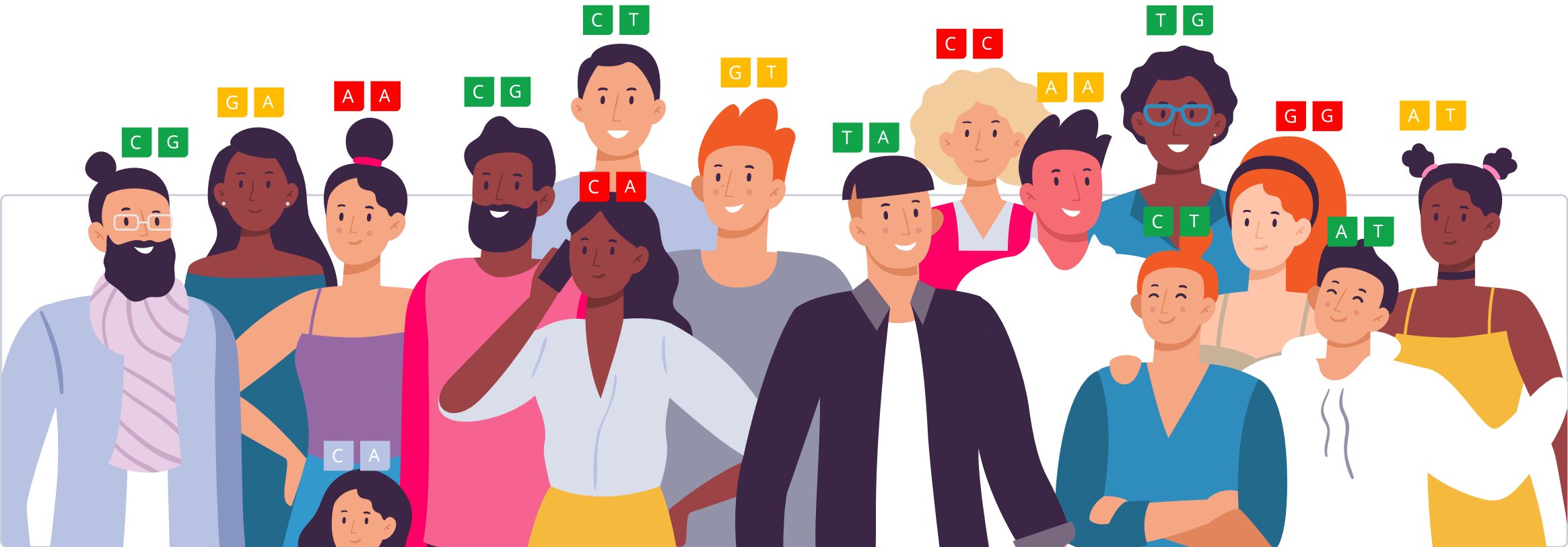


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

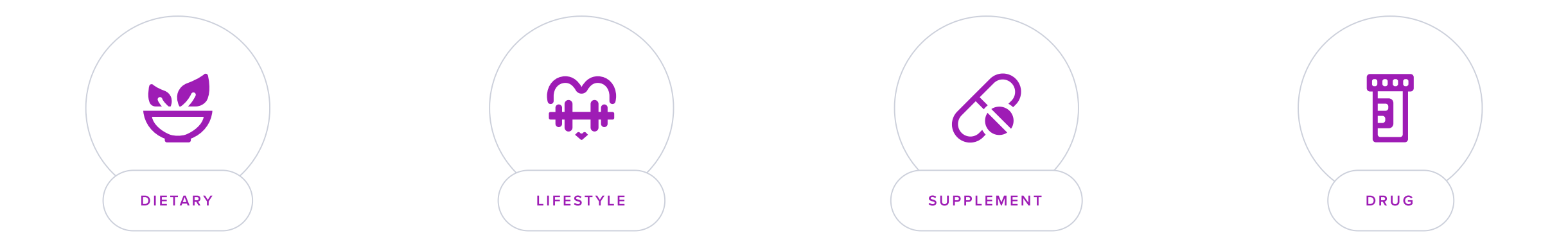
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
-
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
-
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
-
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
-
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Malaria is a serious and sometimes life-threatening disease caused by *Plasmodium* parasites transmitted to humans through the bites of infected female *Anopheles* mosquitoes. It is most prevalent in tropical and subtropical climates where the mosquitoes that carry the parasite thrive, particularly in parts of Africa, South America, and Asia.

Signs and symptoms of malaria include [\[R\]](#):

- Fever
- Chills
- Headache
- Nausea and vomiting
- Muscle pains
- Fatigue
- Coughing and breathing difficulties
- Diarrhea

In severe cases, especially with *Plasmodium falciparum*, symptoms might progress to severe anemia, cerebral malaria, organ failure, and death if not treated promptly.

Treatment and Prevention

Treatment depends on several factors including the type of malaria, its severity, the patient's condition, and whether the patient is pregnant. The most common treatments include [\[R\]](#):

- Artemisinin-based combination therapies (ACTs): The most effective treatment for *P. falciparum* malaria.
- Chloroquine phosphate: Used for *P. vivax*, *P. ovale*, *P. malariae*, and sensitive strains of *P. falciparum*.
- Primaquine: Used to prevent relapses in *P. vivax* and *P. ovale* by targeting dormant liver forms.

Treatment should begin as soon as the diagnosis has been confirmed. Any delays can lead to complications and severe illness, which might become difficult to manage.

Malaria prevention involves several steps:

- Mosquito avoidance: Using insect repellent, insecticide-treated nets, and covering the body during dusk and dawn can reduce the risk.
- Chemoprophylaxis: Taking antimalarial medication when traveling to areas where malaria is endemic.
- Vector control programs: These include spraying insecticides and draining stagnant water to reduce mosquito populations.



TYPICAL LIKELIHOOD

Typical likelihood of malaria based on 13,028 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
MMP26	rs12788102	AA
ZNF804A	rs6755404	AC
ARHGAP20	rs1469170	AG
CDH13	rs9940464	CT
MBIP	rs12590640	TC
ABO	rs8176722	CC

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

Your Recommendations

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

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

DOSAGE		DOSAGE			
1	Artemisia Extract	200 mg	2	N-acetylcysteine (NAC)	1200 mg
3	Wormwood	200 mg	4	Sweet Wormwood	100 mg
5	Regular Hand Washing		6	Dietary Iron	
7	Sleep for 7+ Hours		8	Dietary Folate	

1



Artemisia Extract

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Take an artemisia extract supplement, usually available in capsule form, with a typical dosage ranging from 200 to 400 mg daily. This should be taken with water, preferably after meals to reduce the risk of stomach upset. Follow the specific dosage recommended on the product label or by a healthcare provider for up to 4 weeks.

TYPICAL STARTING DOSE

200 mg

Description

Artemisia extract is derived from various species of the Artemisia plant, and it is used in traditional medicine for its potential medicinal properties. It is being studied for its possible role in supporting digestive health and immune function.

How it helps

Several trials found artemisinin combination therapies effective at curing uncomplicated malaria and preventing new infections [\[R, R, R, R, R\]](#).

Artemisia extract attacks the malaria parasite in the bloodstream, reducing the number of parasites and alleviating the symptoms of malaria. This is the basis for many modern antimalarial medications.

2



N-acetylcysteine (NAC)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

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

TYPICAL STARTING DOSE

1200 mg

Description

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

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

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

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

How it helps

In a placebo-controlled trial, 108 severe falciparum malaria patients received N-acetylcysteine (NAC) along with intravenous artesunate therapy. Three NAC regimens were used, including intravenous and oral doses. Two patients in Group 1 died due to severe disease, but no adverse reactions to NAC were noted, except vomiting. The positive outcomes and safety warrant a larger, double-blind trial to investigate NAC as an adjunctive therapy for severe malaria. [\[R\]](#)

A study involving 108 adult severe falciparum malaria patients who received N-acetylcysteine (NAC) or placebo alongside intravenous artesunate showed that NAC had no significant impact on mortality, lactate clearance times, or coma recovery times. Parasite clearance time increased, but it could be attributed to differences in admission parasitemia. While oxidative stress markers were elevated in severe malaria, NAC did not improve outcomes or red cell rigidity. [\[R\]](#)

3



Wormwood

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a wormwood supplement capsule, typically ranging from 200 to 500 mg, once daily before a meal. The exact dosage may depend on the specific condition being treated and the product's concentration, so consult the supplement's packaging or a healthcare professional for guidance. Use should generally not exceed four weeks consecutively without a break or medical advice.

TYPICAL STARTING DOSE

200 mg

Description

Wormwood is an herb used in traditional medicine for its potential digestive benefits and as an ingredient in herbal liqueurs. It may aid in relieving digestive discomfort and expelling intestinal parasites. The main compound of interest is thujone.

How it helps

Wormwood tea may improve malaria symptoms. However, quinine and antimalarial drugs may be more effective [\[R, R\]](#).

4



Sweet Wormwood

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a sweet wormwood supplement as an extract or tablet form, following the manufacturer's guidelines on dosing, which typically ranges from 100 to 200 mg daily. It's usually taken for no longer than 4 to 6 weeks.

TYPICAL STARTING DOSE

100 mg

Description

Sweet wormwood (*Artemisia annua*) is a plant native to Asia and has been traditionally used in Chinese herbal medicine as a potent antimalarial compound. This is due to the compound artemisinin and its derivative, which are widely used in modern medicine to treat malaria.

Sweet wormwood (*Artemisia annua*) is a herb used in traditional Chinese medicine. It may help combat infections by parasites, viruses, fungi, and bacteria. In line with this, people have used sweet wormwood for [\[R\]](#), [\[R\]](#):

- Malaria
- Tuberculosis
- Lice
- Scabies
- Dysentery

Artemisinin, the most important anti-malarial drug, was originally isolated from sweet wormwood [\[R\]](#).

How it helps

Sweet Wormwood, or *Artemisia annua*, contains artemisinin, which is widely used in the treatment of malaria. Artemisinin works by attacking the malaria parasites in the bloodstream, reducing their numbers and helping to clear the infection.

5



Regular Hand Washing

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Wash your hands with soap and water for at least 20 seconds, making sure to scrub all surfaces of your hands, including the backs, between your fingers, and under your nails. Do this several times a day, especially before eating, after using the bathroom, after blowing your nose, coughing, or sneezing, and after touching garbage.

Description

Regular hand washing is a simple yet highly effective hygiene practice that helps prevent the spread of infectious diseases and illnesses. It is essential for reducing the transmission of harmful pathogens and maintaining overall health.

How it helps

While malaria is primarily transmitted through mosquito bites, practicing good hygiene like regular hand washing can help prevent co-infections that could complicate malaria.

6



Dietary Iron

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate iron-rich foods into your daily meals, such as red meat, chicken, turkey, fish, beans, lentils, tofu, cooked spinach, and fortified cereals. Aim for at least 18 mg of iron per day for adult women and 8 mg per day for adult men. It's also beneficial to pair these foods with vitamin C-rich foods like oranges, strawberries, or bell peppers to enhance iron absorption.

Description

Iron (Fe) is an essential mineral. It helps make [hemoglobin](#), a protein that carries oxygen to cells. In this way, iron **increases energy** and supports **brain and immune system function** [\[R\]](#), [\[R\]](#), [\[R\]](#).

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

- Oysters
- White beans
- Beef
- Chocolate
- Spinach
- Fortified cereals

Women should be getting **8-18 mg** of iron per day, while **men** should be getting **8 mg** [\[R\]](#).

Groups at risk of iron deficiency include [\[R\]](#):

- Menstruating women
- Children
- Vegetarians
- Routine blood donors

How it helps

Iron is needed to produce hemoglobin in red blood cells, which may be reduced due to malaria-related anemia. Supplementing iron can help combat this condition.

7



Sleep for 7+ Hours

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Ensure you allocate enough time in your schedule to achieve a minimum of 7 hours of sleep each night. This might involve going to bed earlier or adjusting your evening routine to promote relaxation and make it easier to fall asleep.

Description

Optimizing sleep involves adopting healthy sleep habits and creating a sleep-conducive environment to ensure restorative and sufficient sleep duration. It supports cognitive function, mood stability, and overall physical health. Most experts recommend getting **at least 7 hours of good-quality sleep each night**.

[Sleep](#) supports your body and mind [\[R, R\]](#). More precisely, sleep helps:

- Support brain health [\[R, R\]](#)
- Maintain a healthy weight and appetite [\[R, R, R\]](#)
- Regulate blood pressure [\[R, R\]](#)
- Balance blood sugar [\[R, R\]](#)

Ways to sleep better include [\[R\]](#):

- Reducing your bright light exposure (screen time) in the evenings
- Sticking to a regular sleep schedule
- Avoiding hunger or large meals before bed
- Avoiding nicotine, caffeine, and alcohol before bed
- Maintaining a sleep area that’s cool, dark, and quiet

How it helps

Proper sleep strengthens the immune system, which is crucial for fighting off infections like malaria.

8



Dietary Folate

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Increase your intake of folate-rich foods such as leafy green vegetables, fruits, nuts, and legumes. Aim to consume these foods daily, incorporating them into various meals throughout the day to meet the recommended dietary allowance of 400 micrograms for adults.

Description

Vitamin B9 (*folate*) plays an essential role in [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Making DNA
- Metabolism
- Energy production

Rich sources of folate include [\[R\]](#), [\[R\]](#):

- Beef liver
- Spinach
- Black-eyed peas
- Asparagus
- Citrus fruits

While folate deficiency is rare, it can happen in people who don’t eat enough fruits and vegetables. Alcoholics and lactating women may also be at increased risk [\[R\]](#).

Adults should get **400 micrograms (mcg)** of folate per day. Pregnant or breastfeeding women should get **500-600 mcg per day**. Supplements are usually in the form of *folic acid* or [L-methylfolate](#) (5-MTHF) [\[R\]](#), [\[R\]](#).

How it helps

Folate (Vitamin B9) can help the body produce and maintain new cells, and it's crucial during recovery from diseases like malaria. It's especially vital because malaria may cause hemolytic anemia, where red blood cells break down too quickly.

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.

	Platelet Count	215 x10 ³ /mm ³		9 Nov 2025
	RBC	6.05 x10 ⁶ /mm ³		9 Nov 2025
	Hematocrit	51.8 %		9 Nov 2025
	Hemoglobin	17.1 g/dL		9 Nov 2025