

Low Neutrophils

DNA Health Report

REPORT CATEGORY —



IMMUNITY &
INFECTIONS

Sample Client

Report date: 15 January 2026

Powered by

 omicsege

Table of Contents

03 How this works

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

07 Introduction

08 Your genetics

10 Your recommendations

15 Next Steps

- 15 Your Lab Results

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

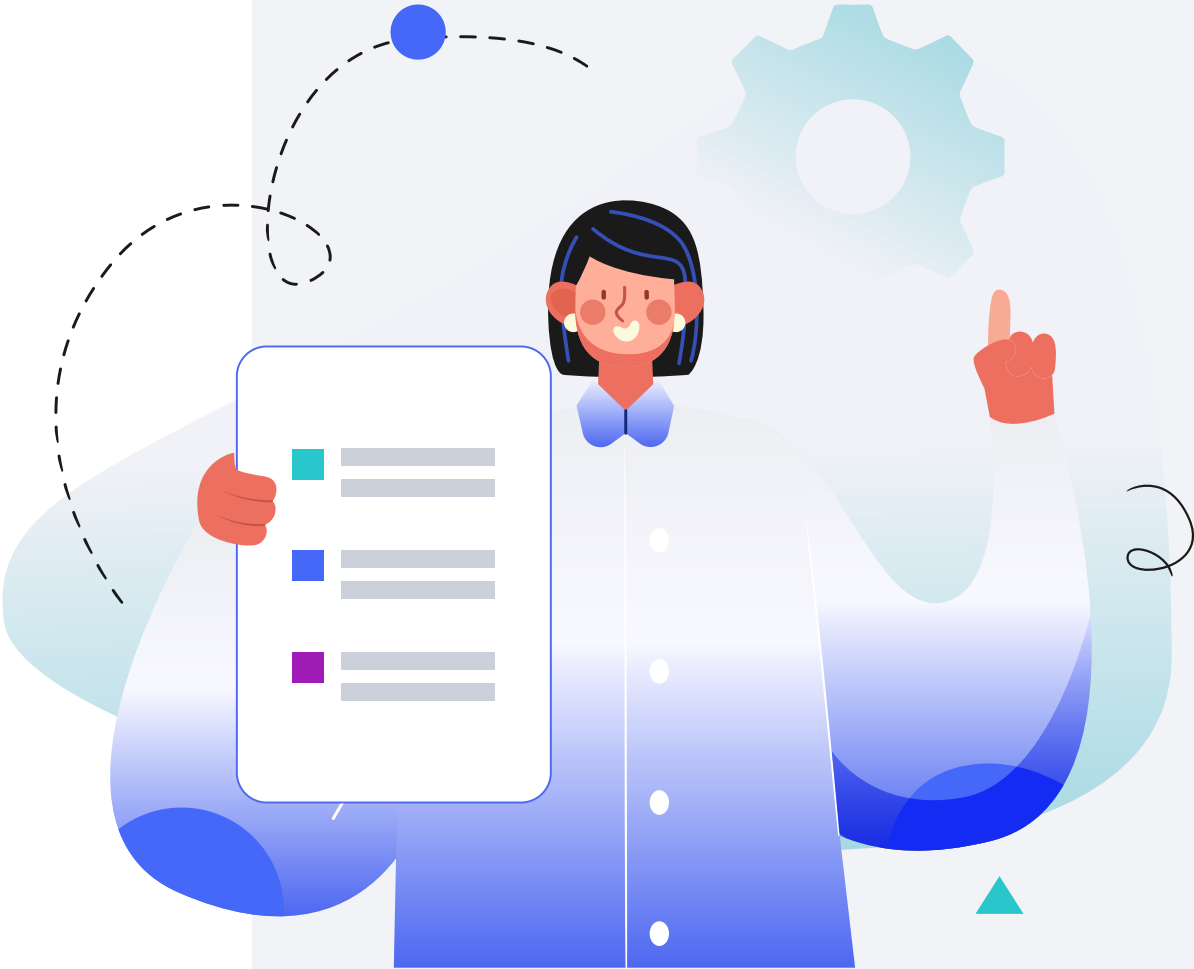
Male

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

Neutropenia is a hematological condition characterized by an abnormally low count of neutrophils. Neutrophils are the most abundant type of white blood cells in the bloodstream and play a key role in the immune response by attacking and digesting harmful invaders, particularly bacteria and fungi.

Neutropenia can occur due to a variety of reasons:

- Bone marrow disorders: Diseases such as leukemia, myelodysplastic syndromes, or aplastic anemia can directly affect the bone marrow's ability to produce neutrophils.
- Infections: Certain viral infections, including HIV, hepatitis, and severe bacterial infections, can temporarily or permanently reduce neutrophil production.
- Autoimmune disorders: Conditions like lupus and rheumatoid arthritis can lead to the destruction of neutrophils.
- Chemotherapy and radiation therapy: These cancer treatments can damage the bone marrow, leading to decreased production of neutrophils.
- Medications: Drugs, including certain antibiotics and drugs used to treat mood disorders, can cause neutropenia as a side effect.
- Congenital disorders: Some people are born with genetic conditions that result in chronic neutropenia.

Neutropenia itself does not cause any symptoms. However, it increases the risk of infections. Signs of infection include:

- Fever
- Frequent infections
- Severe infections that are more difficult to treat
- Mouth ulcers
- Sore throat
- Shortness of breath
- Skin abscesses

Diagnosis and Treatment

Neutropenia is typically diagnosed through a complete blood count test, which evaluates the levels of various types of cells in the blood. If neutropenia is detected, further tests may be required to determine its cause:

- Bone marrow biopsy: To examine the health and status of the bone marrow.
- Blood tests: To check for infections, vitamin deficiencies (such as B12 and folate), and autoimmune disorders.
- Genetic tests: Particularly if congenital or hereditary neutropenia is suspected.

Treatment depends on the severity of neutropenia, its underlying cause, and the presence of symptoms or infections. It may include:

- Granulocyte colony-stimulating factor (G-CSF): A medication that can stimulate the bone marrow to produce more neutrophils.
- Antibiotics or antifungals: Used to treat or prevent infections.
- Adjustment or discontinuation of causative medications: If drug-induced neutropenia is suspected.
- Bone marrow stimulants: In cases of bone marrow disorders.
- Treatment of underlying conditions: Addressing any primary diseases contributing to neutropenia.

Patients with neutropenia are advised to take measures to reduce their risk of infections, such as:

- Practicing good hygiene
- Avoiding large crowds or people who are sick
- Carefully handling and preparing food to avoid foodborne illnesses



MORE LIKELY

More likely to have neutropenia based on 1,674 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
GATA2	rs6782812	AA
/	rs144322196	GG
LYST	rs9970896	TT
CSF3R	rs3917932	GG
KLC3	rs11673093	AA
ACKR1	rs41264467	GA
HBS1L	rs9376091	TT
MYC	rs74865311	GC
GATA2	rs147412900	AG
CXCR2	rs61733609	GG
CXCR2	rs55799208	GG
ACKR1	rs2814778	TT
NCLN	rs144284241	CC
CXCR2	rs10201766	CC
CSF3	rs142286142	TT
ACKR1	rs34599082	CC
JAML	rs141143931	CC
CXCR2	rs114050631	CC
GFI1B	rs150813342	CC
EHD3	rs146859437	GG
CIC	rs117359636	GG
IFNA13	rs142938197	CC
CDK6	rs445	CC
TBC1D14	rs143896995	GG

GENE	SNP	GENOTYPE
/	rs560564311	TT
ATF7	rs117788567	CC
IL17RA	rs140221307	TT
GSDMA	rs146890554	CC
PREX1	rs149257976	CC
RABGAP1L	rs114017545	CC
ATP6V1G3	rs143554274	CC
S1PR4	rs146875993	TT
PLAUR	rs4760	AA
KIF1B	rs112682076	GG
/	rs34762051	DEL(A)DEL(A)
/	rs11751495	CC
MYO16	rs150861794	CC
GSDMC	rs1982094	CC
HNF4A	rs1800961	CC
PTEN	rs59085061	AA
TSPAN32	rs61744929	TT
POU5F1	rs115464798	GG
NAA38	rs74480102	GG
RASA2	rs9819371	CC
PLAGL1	rs72992130	CC
GTF3C1	rs61739285	CC
PTPRC	rs79894581	CC
ABO	rs8176685	DEL(CGCCCACCACTA)DEL(CGCCCACCACTA)
BCL2	rs17758695	CC
PRTFDC1	rs7908585	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	Beta-Glucans	2	Stress Management Therapy1 hour
3	Sleep for 7+ Hours	4	Avoid Crowds
5	Regular Sleep Schedule		

1



Beta-Glucans

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a beta-glucan supplement daily, with a dosage ranging from 250mg to 500mg. It is best consumed with a meal to enhance absorption. Continue this routine daily to support immune health.

Description

Beta-glucans are types of soluble fiber found in foods like oats and barley. They have been associated with immune system support and may help lower cholesterol levels when consumed as part of a heart-healthy diet.

Beta-glucan is a type of soluble fiber with antioxidant properties. It is abundant in [R](#), [R](#):

- Baker's yeast
- Cereals (e.g., oats, barley)
- Mushrooms (e.g., maitake)
- Seaweeds

People use beta-glucans to [R](#), [R](#), [R](#), [R](#), [R](#):

- Improve immunity (e.g., fight infections)
- Reduce blood sugar
- Reduce cholesterol

How it helps

Beta-Glucans are known to enhance the immune response by activating various types of immune cells, including neutrophils. This can help to increase the number of neutrophils and improve immune defense.

2



Stress Management Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Engage in stress management therapy sessions, such as cognitive-behavioral therapy (CBT), for at least 1 hour per week over a course of 8 to 12 weeks. Techniques can include mindfulness, deep breathing exercises, and identifying stressors to develop coping strategies.

TYPICAL STARTING DOSE

1 hour

Description

Stress management therapy refers to various techniques and approaches aimed at reducing and coping with stress. It can improve mental and physical well-being by helping individuals better manage the effects of stress on their health.

How it helps

Stress negatively affects the immune system, which can lead to lower neutrophil counts. Stress management techniques can help regulate the body's stress response and support immune health.

3



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

Adequate sleep is crucial for the immune system to function properly. Getting at least 7 hours of sleep can help the body produce more neutrophils, enhancing its ability to fight infections.

4



Avoid Crowds

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Minimize your time in crowded places by scheduling your errands during off-peak hours, avoiding public events known to draw large crowds, and choosing less crowded routes or modes of transportation.

Description

Avoiding crowded environments, especially during contagious disease outbreaks, can reduce the risk of viral transmission and help protect public health. It promotes social distancing measures that are crucial for preventing the spread of infectious diseases.

How it helps

Avoiding crowds reduces exposure to infections and illnesses, which is especially important for individuals with low neutrophil levels since their immune system is compromised.

5



Regular Sleep Schedule

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Go to bed and wake up at the same time every day, even on weekends and holidays. This helps regulate your body's internal clock, leading to better sleep quality. Aim for 7-9 hours of sleep per night.

Description

Maintaining a regular sleep schedule involves going to bed and waking up at consistent times each day. This practice helps regulate the body's internal clock and promotes better sleep quality, mood, and cognitive function.

How it helps

Maintaining a regular sleep schedule supports overall immune function, which may help in sustaining healthy neutrophil levels.

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.

 WBC	6.92 x10^3/mm3		9 Nov 2025
 Neutrophils (%)	69.3 %		9 Nov 2025
 Neutrophils (Absolute)	4.8 x10^9/L		9 Nov 2025