

Leukemia

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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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

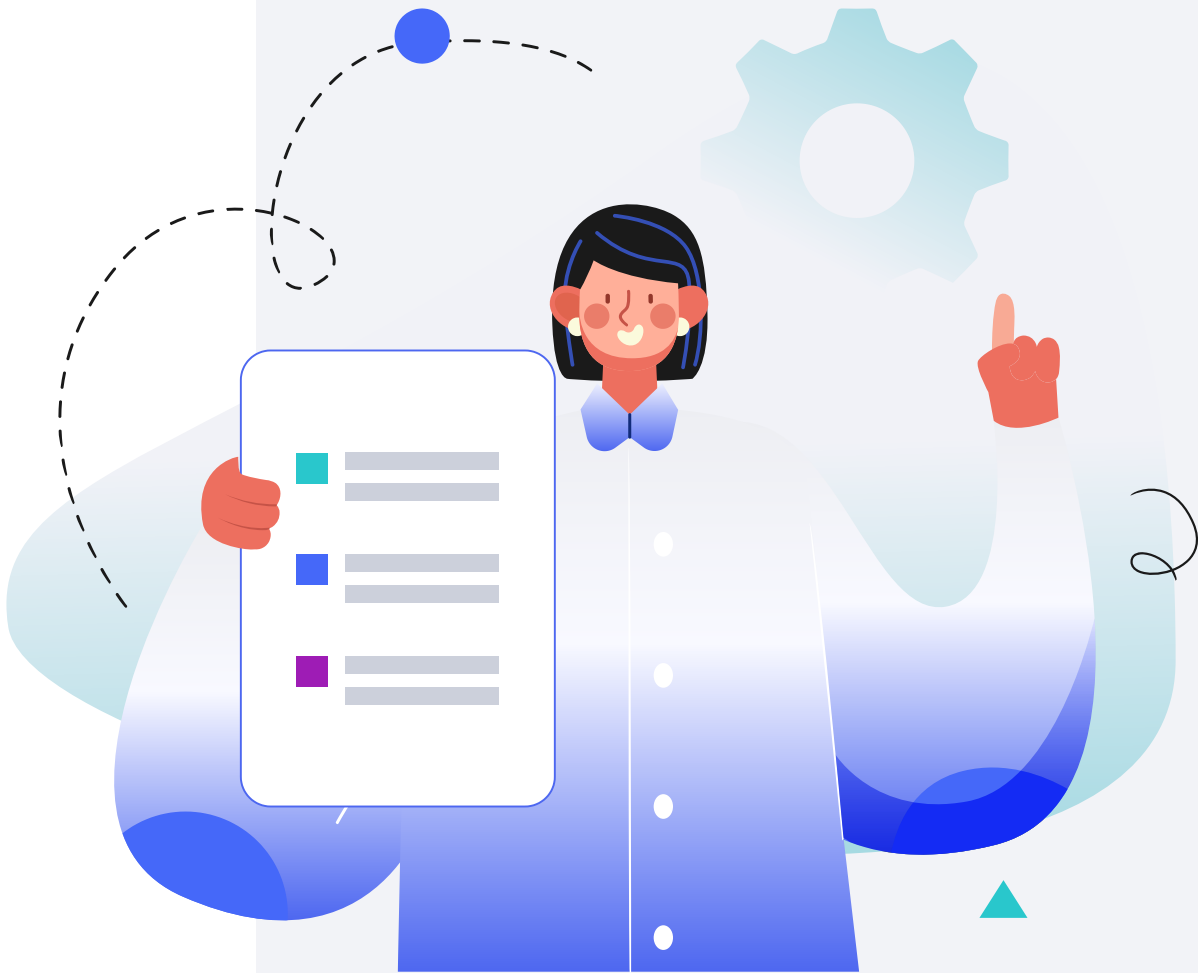
Male

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

Leukemia is a type of cancer that originates in the blood-forming tissues, such as the bone marrow, and leads to the production of abnormal blood cells. These abnormal cells cannot fight infections efficiently and crowd out normal blood cells, leading to various health problems [R].

There are several types of leukemia [R]:

- Acute lymphocytic leukemia (ALL): Rapidly progressing leukemia that affects lymphocytes, a type of white blood cell. It is most common in children.
- Acute myeloid leukemia (AML): Rapidly progressing leukemia that affects myeloid cells, which normally develop into red blood cells, white blood cells, and platelets. AML is more common in adults but can occur at any age.
- Chronic lymphocytic leukemia (CLL): Slow-growing leukemia that typically affects older adults and involves lymphocytes. It often progresses slowly and may not require immediate treatment.
- Chronic myeloid leukemia (CML): Slow-growing leukemia that affects myeloid cells. It is characterized by the presence of the Philadelphia chromosome, an abnormal chromosome produced by the fusion of parts of two different chromosomes.
- Other types: including hairy cell leukemia, myelodysplastic syndromes, and myeloproliferative disorders.

Leukemia symptoms vary depending on the type. Common leukemia signs and symptoms include [R]:

- Fever or chills
- Persistent fatigue and weakness
- Frequent or severe infections
- Losing weight without trying
- Swollen lymph nodes
- Enlarged liver or spleen
- Easy bleeding or bruising
- Recurrent nosebleeds
- Tiny red spots in the skin (petechiae)
- Excessive sweating, especially at night
- Bone pain or tenderness

Risk Factors and Treatment

Factors that may increase your risk of developing some types of leukemia include:

- Radiation or chemical exposure: Exposure to high levels of radiation or certain chemicals (like benzene) can increase the risk.
- Family history and genetic mutations
- Genetic disorders such as Down's syndrome
- Smoking

Treatment for leukemia depends on many factors. The doctor determines treatment options based on the patient's age and overall health, the type of leukemia, and whether it has spread to other parts of the body, including the central nervous system. Common treatments include [\[R\]](#):

- Chemotherapy: The primary treatment for many types of leukemia, involving the use of drugs to kill cancer cells.
- Radiation therapy: Used in certain cases to target and kill leukemia cells.
- Targeted therapy: Drugs that specifically target abnormalities in leukemia cells, such as tyrosine kinase inhibitors for CML.
- Immunotherapy: Boosts the body’s immune system to fight the leukemia cells.
- Stem cell transplant: Replaces the diseased bone marrow with healthy stem cells from a donor.
- Monitoring: Some chronic forms of leukemia, like CLL, may not require immediate treatment and are closely monitored instead.

The prognosis for leukemia varies widely depending on the type, the patient’s age, the stage at diagnosis, and how well the leukemia responds to treatment. Acute leukemias generally require immediate treatment and can be life-threatening if not treated promptly, while chronic leukemias may be managed over many years.

Please note: This report is not diagnostic and can't be used to make any medical decisions. Most cancers are uncommon and have a strong environmental component. Even if your genetic predisposition is high, you will most



LESS LIKELY

Less likely to have leukemia based on 775,271 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
BCL2	rs77551289	AA
BMF	rs8024033	CC
BAK1	rs210143	CC
PRKD2	rs874460	CC
MYC	rs2466029	GG
FAS	rs6586163	AA
ID3	rs34676223	CC
RHOU	rs41271473	GG
CAMK2D	rs1476569	GG
LEF1	rs7690934	CC
DMRTA1	rs1679013	CC
IRF4	rs9392504	GA
HLA-DQA1	rs9271176	GA
USP28	rs61904987	TC
TERT	rs7705526	CA
C11ORF21	rs2651823	AG
ZBTB7A	rs7254272	AG
EOMES	rs9880772	AG
PRKD3	rs888096	AG
GRAMD1B	rs35923643	AA
BCL2L11	rs58055674	TT
SP140	rs34004493	AA
RFX7	rs142215530	AA
TLE3	rs11637565	AA
IRF8	rs391855	TT
SEPTIN2	rs3755397	AA
ILRUN	rs3800461	GG
CFLAR	rs7558911	GG
BANK1	rs71597109	TT
UBR5	rs2511713	AA
OAS1	rs6489882	AA
GPR37	rs2267708	CC

likely not develop the disease. This report doesn’t test for hereditary cancer syndromes or ‘cancer genes’. These are usually caused by rare mutations that can’t be analyzed by our test. If you're concerned about your risk of hereditary cancer, consider getting a specialized test at a reference laboratory.

GENE	SNP	GENOTYPE
IPCEF1	rs4869818	AA
LMF2	rs140522	CC
CXXC1	rs1036935	GG
LPP	rs73192661	TT
IRF2	rs57214277	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	Aerobic Exercise (Cardio)	1 hour	2	Tea	
3	Avoid Formaldehyde Exposure		4	Avoid Pesticide Exposure	
5	Avoid Air Pollution		6	Reduce EMF Exposure	
7	Skullcap	1 g	8	Mediterranean Diet	
9	Avoid PCBs		10	Avoid Volatile Organic Compounds Exposure	
11	Avoid Secondhand Smoke		12	Turmeric	
13	Pomegranate		14	Regular Hand Washing	
15	DASH Diet		16	Curcumin	500 mg
17	Selenium Supplements	50 mcg	18	Support Groups	
19	Green Tea Extract	250 mg	20	Good Oral Hygiene	2 minutes
21	Dietary Antioxidants		22	Exercise At Least One Hour a Day	1 hour
23	Mindfulness-Based Stress Reduction (MBSR)	2 hours	24	Yoga	30 minutes

1



Aerobic Exercise (Cardio)

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity activity each week. Distribute this time over at least 3 days per week, avoiding consecutive days of vigorous exercise to allow for recovery.

TYPICAL STARTING DOSE

1 hour

Description

Engaging in regular aerobic exercise, such as running, swimming, or cycling, offers numerous health benefits, including improved cardiovascular fitness, weight management, and mood enhancement. It supports overall physical and mental well-being while reducing the risk of chronic diseases.

Cardio, short for cardiovascular exercise, is any type of physical activity that temporarily increases your heart rate. Examples include **running, cycling, swimming, and brisk walking**.

Regular cardio exercise has many benefits for your overall health. It can help lower your risk of heart disease and diabetes, support weight loss, and improve your mood and energy levels. To get the most out of cardio, try to do it for at **least 30 minutes, 3-5 times a week**.

Interval training is a type of cardio that combines periods of high-intensity training with brief rest periods.

How it helps

Adding physical exercise to conventional treatment for leukemia may improve fatigue, depression, cardiorespiratory fitness, and physical function. However, the evidence is mixed [R, R, R, R].

2



Tea

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Drink 1-3 cups of tea daily, choosing from green, black, or herbal varieties according to preference. It's beneficial to consume tea throughout the day, either hot or cold, for ongoing hydration and health benefits.

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 polyphenols 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 many active compounds. These include antioxidants like EGCG and amino acids like [L-theanine](#). Active components of tea help support [\[R, R, R, R, R, R\]](#):

- Heart health
- Cognition
- Immunity
- Relaxation

How it helps

An [umbrella review of 64 studies](#) identified leukemia among the conditions whose **risk is reduced by tea intake** [\[R\]](#).

Similarly, a [meta-analysis of 7 studies](#) found that **high tea intake reduces the risk of leukemia by about half in both American and Chinese populations** [\[R\]](#).

3



Avoid Formaldehyde Exposure

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

To minimize formaldehyde exposure, choose household products and building materials labeled low-VOC (Volatile Organic Compounds) or formaldehyde-free. Ensure proper ventilation in your living and working spaces, especially when using products known to contain formaldehyde like certain adhesives, cleaning agents, and cosmetics. Aim to reduce use of pressed wood products and seek out alternatives when possible.

Description

Avoiding exposure to formaldehyde, a chemical commonly found in building materials and certain products, is crucial to prevent respiratory problems and potential carcinogenic effects.

How it helps

A meta-analysis of high-formaldehyde exposure occupations found an increased risk of leukemia, particularly myeloid leukemia (RR=1.90). The study discusses possible mechanisms and suggests using validated biomarkers in future research [\[R\]](#).

An updated meta-analysis, focusing on high-exposure groups and myeloid leukemia, reveals a significant association between formaldehyde exposure and increased risk of myeloid leukemia [\[R\]](#).

However, another study analyzed 18 epidemiology studies on formaldehyde-exposed workers' leukemia rates, and results showed a small increase in leukemia risk for embalmers and pathologists, but no clear link for industrial workers. Inconsistent findings suggest no strong association between formaldehyde exposure and leukemia risk. Limited evidence of publication bias was found [\[R\]](#).

Also, in another study, no significant association was found between formaldehyde exposure and leukemia or nasopharyngeal cancer in cohort and case-control studies, considering various factors. Previous analyses had differing results [\[R\]](#).

4



Avoid Pesticide Exposure

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Purchase organic produce when possible, wash fruits and vegetables thoroughly under running water, and peel them if not organic. Use natural pest control methods instead of chemical pesticides at home and garden. Limit the use of non-organic lawn and garden chemicals.

Description

Pesticides include all chemicals used to kill weeds, insects, fungi, and microbes. Reducing pesticide exposure involves choosing organic or pesticide-free foods and using natural pest control methods to limit contact with potentially harmful chemical residues. It supports overall health by reducing the risk of pesticide-related health issues.

Pesticides include all chemicals used to kill weeds, insects, fungi, and microbes. They are widely used in agriculture to improve crop yields. Common groups of pesticides include:

- Organophosphates (glyphosate, parathion, malathion, chlorpyrifos, diazinon, phosmet)
- Neonicotinoids (imidacloprid, acetamiprid, thiacloprid, clothianidin)
- Pyrethroids (permethrin, alpha-cypermethrin)

Chronic exposure to pesticides has been linked to:

- Fertility problems [\[R\]](#)
- Cognitive problems [\[R\]](#)
- Alzheimer’s and Parkinson’s disease [\[R\]](#), [\[R\]](#)
- Thyroid problems [\[R\]](#)
- Obesity [\[R\]](#)
- DNA damage and cancer [\[R\]](#), [\[R\]](#), [\[R\]](#)

How it helps

A meta-analysis of pesticide manufacturing workers suggests a potential link between occupational pesticide exposure and leukemia risk, especially myeloid leukemia, but more research is needed for definitive conclusions [\[R\]](#).

5



Avoid Air Pollution

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Stay indoors on days when air quality indexes (AQI) indicate high pollution levels, which are often reported by weather services or government environmental agencies. **Install air purifiers** in your home, especially in bedrooms, to reduce indoor pollutants. Limit outdoor exercise when air pollution warnings are issued, opting for indoor activities instead.

Description

Avoiding air pollution by reducing exposure to pollutants in the environment is essential for respiratory and overall health. It can help lower the risk of respiratory diseases, cardiovascular conditions, and other health issues associated with poor air quality.

While city life is convenient in a lot of ways, it comes with some health hazards. Cars, factories, and other sources increase air [pollution](#) ^[R].

Air pollution plays a role in [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung disease
- Heart disease
- Diabetes
- Asthma
- Skin conditions

How it helps

A meta-analysis found that high exposure to benzene and NO2, especially during pregnancy, was associated with an increased risk of leukemia. The dose-response analysis confirmed a linear relationship for benzene and NO2. Other pollutants showed no significant correlation [\[R\]](#).

6



Reduce EMF Exposure

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

To reduce EMF (Electromagnetic Field) exposure, keep your cell phone away from your body when not in use, use speakerphone or wired headphones for calls, and turn off Wi-Fi and electronic devices at night, especially in your sleeping area. Limit the use of devices that emit strong EMFs, such as microwaves, by standing back while they are in operation. Aim to create a low-EMF environment in your home and workplace as much as possible.

Description

Reducing electromagnetic field (EMF) exposure involves minimizing exposure to electromagnetic radiation emitted by electronic devices. Limiting EMF exposure may help reduce the risk of potential health concerns associated with long-term EMF exposure, such as electromagnetic hypersensitivity.

How it helps

A meta-analysis of 14 studies associated high EMF exposure with a 46% higher risk of childhood leukemia [\[R\]](#).

7



Skullcap

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 1 to 2 grams of dried skullcap herb in capsule or tablet form, or 1 to 2 milliliters of a tincture three times daily. For standardized extracts, follow the specific dosage instructions on the product label.

TYPICAL STARTING DOSE

1 g

Description

Skullcap, also known as Scutellaria, is a herbaceous plant native to North American and Asia. Its extract is often used in traditional herbal medicine for its calming and anti-inflammatory properties. Skullcap extracts may contain various compounds, including flavonoids and polyphenols.

American [skullcap](#) (*Scutellaria lateriflora*) is a Native American herb traditionally used for [\[R\]](#):

- Anxiety
- Stress
- Insomnia

How it helps

Scutellariae Radix extract, enriched in baicalin, selectively reduces viability and induces apoptosis in leukemic cells without affecting healthy cells, demonstrating its potential as an anticancer agent. It modulates immune responses by increasing IFN γ and reducing TNF α and IL-10 in ALL patients, and enhances resistance to viral infections, showing promise for targeted leukemia therapy [\[R\]](#).

8



Mediterranean Diet

IMPACT

1 / 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

Children born to women who eat a Mediterranean diet may be at decreased risk of acute lymphoblastic leukemia [\[R\]](#).

In contrast, a Western dietary pattern has been associated with an increased risk of chronic lymphocytic leukemia in adults [\[R\]](#).

9



Avoid PCBs

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

To avoid PCBs (Polychlorinated Biphenyls), do not use old electrical equipment manufactured before 1977, avoid consuming fish from contaminated waters, especially larger species such as shark and swordfish which are higher in the food chain, and check for and properly dispose of any old fluorescent lighting fixtures that may contain PCBs. Pay attention to local advisories regarding the safety of locally caught fish and wildlife.

Description

PCBs are toxic chemicals that can cause cancer, reproductive problems, and developmental problems. Avoiding exposure to PCBs is important for protecting your health.

Polychlorinated biphenyls (PCBs) are man-made chemicals. They were used in the industry until their **ban in 1979**. PCBs are considered **persistent organic pollutants** (POPS) due to their slow degradation in the environment. They may also **accumulate** in the food chain and the human body [\[R\]](#), [\[R\]](#).

We may be exposed to PCBs through contaminated [\[R\]](#), [\[R\]](#):

- **Food** (e.g., fish, meat, rice)
- Soil
- Air

PCBs may have toxic effects on [\[R\]](#), [\[R\]](#):

- Immunity
- Nervous system
- Reproductive system
- Hormone levels

They may also increase the risk of cancer and reduce lifespan [\[R\]](#), [\[R\]](#).

How it helps

A case-control study in California (2001-2006) found a 2-fold increased risk of childhood acute lymphocytic leukemia (ALL) associated with PCB exposure in carpet dust. PCBs may be a previously unrecognized risk factor for childhood leukemia, especially in non-Hispanic whites [\[R\]](#).

10



Avoid Volatile Organic Compounds Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Increase ventilation in your living and working spaces by opening windows or using air purifiers with activated carbon filters. Choose low-VOC or VOC-free paints, building materials, and household products. Limit the use of aerosol sprays, solvent-based cleaners, air fresheners, and scented candles. When possible, store products containing VOCs outside of living spaces, and always follow label instructions for proper use and ventilation.

Description

Reducing VOC exposure involves minimizing contact with indoor air pollutants from sources like paints, cleaning products, and certain building materials, which can help prevent respiratory problems and maintain indoor air quality.

How it helps

A meta-analysis of 32 studies found associations between air pollutants. Benzene was linked to leukemia, asthma, and low birth weight, with specific risk values reported [\[R\]](#).

11



Avoid Secondhand Smoke

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Implementing a smoke-free lifestyle involves communicating your needs to family, friends, and coworkers, requesting they respect your choice by smoking away from you. At home, establish strict no-smoking policies indoors. When out, choose smoke-free venues and accommodations. Advocate for smoke-free environments in your community and support legislation that promotes public health by reducing exposure to secondhand smoke. Utilize air purifiers at home to reduce any residual particles.

Description

Avoiding secondhand smoke is crucial for maintaining good health. Exposure to secondhand smoke can lead to respiratory problems, cardiovascular disease, and an increased risk of lung cancer, even in non-smokers. Protecting oneself from secondhand smoke involves staying away from smoking areas, ensuring smoke-free environments at home and work, and advocating for smoke-free policies in public spaces.

How it helps

Avoiding cigarette smoke is important for individuals with leukemia because cigarette smoke contains carcinogens that can further damage DNA and potentially worsen leukemia. Secondhand smoke can also pose a significant health risk, making it crucial for leukemia patients to avoid environments where cigarette smoke is present.

12



Turmeric

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate 500-1000 mg of turmeric into your daily diet, either by adding ground turmeric spice to your food, such as in curries, soups, and smoothies, or by taking a dietary turmeric supplement. This should be done daily for at least 8 weeks to observe potential health benefits.

Description

Turmeric is a bright yellow spice derived from the root of the *Curcuma longa* plant. It contains curcumin, a potent antioxidant and anti-inflammatory compound. Turmeric is used for various health conditions, including reducing inflammation, alleviating joint pain, and supporting digestive health.

How it helps

Turmeric, especially its active component curcumin, has been studied for its potential to induce cell death in leukemia cells. It works by interfering with several important molecular pathways involved in leukemia development, showcasing its promise as a dietary aid in managing the disease.

13



Pomegranate

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate pomegranate into your diet by consuming fresh pomegranate seeds, drinking pure pomegranate juice, or adding pomegranate extract to smoothies or yogurts. Aim for at least one serving per day, which could be about half a cup of seeds or a glass (8 ounces) of juice, to gain its health benefits.

Description

Pomegranate is a fruit native to regions of the Middle East and Mediterranean. It is rich in antioxidants and nutrients such as vitamin C, vitamin K, and dietary fiber. It contains punicalagins, anthocyanins, and ellagic acid, which give it anti-inflammatory effects and potential heart health benefits.

[Pomegranates](#) are red fruits that contain seeds covered by edible sweet coats. They are rich in antioxidants [\[R\]](#), [\[R\]](#).

Pomegranate may reduce inflammation and support heart health. People use pomegranate seed oil and peel in cosmetics and traditional medicine [\[R\]](#), [\[R\]](#).

How it helps

Pomegranate contains compounds that may have anti-leukemia effects. Studies suggest these compounds can help in reducing the proliferation of leukemia cells, potentially offering a supportive role in leukemia treatment.

14



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

Regular hand washing is a simple yet effective way to prevent infections in individuals with leukemia. Because their immune systems can be weakened by the disease or its treatment, reducing exposure to germs is critical. Proper hand hygiene can significantly decrease the risk of contracting infections, which are more difficult to fight off for someone with leukemia.

15



DASH Diet

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Adopt a dietary pattern that emphasizes fruits, vegetables, whole grains, lean proteins, and low-fat dairy, while reducing sodium, red meat, sweets, and sugary beverages. Aim for 4-5 servings of both fruits and vegetables per day, 6-8 servings of grains (with at least half being whole grains), and 2-3 servings of low-fat dairy. This diet should be followed daily to manage blood pressure effectively.

Description

The DASH (Dietary Approaches to Stop Hypertension) diet is a dietary plan designed to reduce high blood pressure. It emphasizes fruits, vegetables, lean proteins, and whole grains while limiting sodium intake.

Health experts developed the DASH diet to reduce blood pressure. This diet also helps support weight control while reducing inflammation and cholesterol [\[R\]](#).

It **limits salt, sweets, and saturated fat**, while promoting the intake of [\[R\]](#):

- Fruits (4-5 servings/day)
- Vegetables (4-5 servings/day)
- Whole grains (6-8 servings/day)
- Low-fat dairy (2-3 servings/day)
- Nuts, seeds, and legumes (4-5 servings/week)
- Fish and poultry (up to 6 ounces/day)

The DASH diet focuses on fresh, minimally processed food rich in nutrients. Magnesium, calcium, and potassium-rich foods are particularly important due to their beneficial effects on the heart and blood vessels [\[R\]](#).

Although similar to the [Mediterranean diet](#), DASH is lower in sodium (<2,300 mg a day) and omega-3 fatty acids. On the other hand, it’s higher in red meat and dairy [\[R\]](#).

How it helps

The DASH diet, which stands for Dietary Approaches to Stop Hypertension, is primarily designed to help reduce blood pressure but it's rich in fruits, vegetables, and whole grains, providing nutrients that may support overall health, including for those with leukemia. A diet high in antioxidants and low in saturated fats and sugars can help protect the body's cells and support immune function.

16



Curcumin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 500 mg curcumin supplement daily with food. To enhance absorption, take it with a meal that contains fats or oils since curcumin is fat-soluble.

TYPICAL STARTING DOSE
500 mg

Description

Curcumin is a compound found in turmeric known for its anti-inflammatory and antioxidant properties. It has been studied for its potential to reduce inflammation, support joint health, and contribute to overall well-being.

[Turmeric](#) is a yellow spice from India. It may reduce inflammation and [oxidative stress](#) [R].

The most important active compound in turmeric is **curcumin**. People use curcumin for [R, R, R, R, R, R]:

- Joint pain
- Hay fever
- Mood
- High blood sugar
- Gut health
- Liver health

How it helps

Curcumin, a compound found in turmeric, may help in leukemia treatment by inducing cell death in leukemia cells and reducing inflammation. Studies suggest it may help protect against some side effects of conventional treatments.

17



Selenium Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 50 mcg of selenium supplements once daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

50 mcg

Description

Selenium is a trace mineral found in Brazil nuts and many other foods as well as supplements. It is an essential nutrient that plays a crucial role in maintaining the body's antioxidant defenses and supporting thyroid function.

[Selenium](#) supports [\[R\]](#):

- Reproduction
- Thyroid function
- DNA production
- Immune response

Adults should be getting **55 micrograms** of selenium per day. Selenium supplements are available for people who can't meet their needs with a balanced diet [\[R\]](#).

How it helps

Selenium is known for its antioxidant properties, which may help protect cells from damage. Some research suggests that selenium supplementation could support the immune system and may have a protective effect against certain types of cancers, including leukemia. It is thought to work by reducing oxidative stress and potentially hindering the growth of cancer cells.

18



Support Groups

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Attend a support group meeting related to your condition at least once a week. These meetings can be found through local hospitals, online platforms, or health organizations specific to your condition. Participation can be in-person or virtual, depending on what is offered and your preference.

Description

Support groups are gatherings of individuals facing similar challenges, where they can share experiences, emotions, and coping strategies. They offer emotional support, camaraderie, and valuable insights for those dealing with various health conditions or life circumstances.

Support groups involve people with similar struggles helping each other. Support groups usually take place in a casual setting. During sessions, people share their [\[R\]](#):

- Knowledge
- Experiences
- Coping strategies
- Understanding of the recovery process

Support groups may help support recovery from addictions [\[R\]](#).

How it helps

Support groups provide emotional support and can help patients cope with the psychological burden of leukemia. Sharing experiences with others facing similar challenges can improve mental health and lessen feelings of isolation.

19



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 contains antioxidants known as catechins, which may help in slowing down the growth of cancer cells. Some studies suggest that a specific catechin, epigallocatechin-3-gallate (EGCG), found in green tea extract, can target leukemia cells and inhibit their growth without harming healthy cells.

20



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

Maintaining good oral hygiene is crucial for individuals with leukemia. Due to the immune system being compromised, either by the disease itself or by the treatment, there's an increased risk of infections, including in the mouth. Regular brushing, flossing, and dental check-ups can help prevent infections, reduce the likelihood of complications, and improve overall health.

21



Dietary Antioxidants

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods rich in antioxidants, such as fruits (berries, oranges, plums), vegetables (spinach, kale, bell peppers), nuts (walnuts, almonds), and seeds (flaxseeds, chia seeds) into your daily meals. Aim for at least 5 servings of fruits and vegetables per day, ensuring a variety of colors to cover different antioxidants.

Description

Dietary antioxidants are compounds found in foods that help neutralize harmful molecules called free radicals, potentially reducing the risk of oxidative stress-related diseases and supporting overall health. Examples include vitamins C and E, beta-carotene, and polyphenols.

Our cells sometimes produce molecules called **reactive oxygen species (ROS)** [\[R\]](#).

High levels of ROS can cause [oxidative stress](#) and damage our cells. Oxidative stress plays a role in many health conditions, including [\[R\]](#):

- High blood sugar
- Type 2 diabetes
- Heart disease

Antioxidants are substances that help combat ROS [\[R\]](#).

Antioxidants are found in many plants. Good sources include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Fruits like tomatoes, berries, and pomegranates
- Vegetables like onions, spinach, and celery
- Chocolate
- Olive oil
- Wine

How it helps

Antioxidants help protect the body's cells from damage. This is particularly important in leukemia, where the body's immune system and blood cells are directly affected. Foods rich in antioxidants can support the body's defense system and may contribute to overall health maintenance in leukemia patients.

22



Exercise At Least One Hour a Day

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Dedicate a minimum of 60 minutes to moderate-intensity activities such as brisk walking, swimming, or cycling. Do this most days of the week, aiming for at least 5 days to optimize benefits.

TYPICAL STARTING DOSE

1 hour

Description

[Exercise](#) can do wonders for your health. It can help you lose weight, improve your heart health, boost your mood, and more [\[R\]](#).

There are many ways you can be active. You can walk, run, swim, dance, or play team sports. **Everything counts, and it's never too late to start!**

Try to get at least **60 minutes of moderate physical activity on most days**, including walking. **Getting a mix of cardio (min 150 min/day) and strength training (min 2 times a week) may be optimal.**

How it helps

Regular exercise can improve immune function and overall physical health, which can be beneficial for leukemia patients by boosting energy levels and helping to manage fatigue.

23



Mindfulness-Based Stress Reduction (MBSR)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Enroll in an 8-week MBSR course, which includes a weekly 2.5-hour class, one all-day class after the sixth week, and 45 minutes of daily home practice guided by assignments and instructional recordings.

TYPICAL STARTING DOSE

2 hours

Description

Mindfulness-Based Stress Reduction (MBSR) is a structured program that teaches mindfulness techniques to reduce stress and improve overall mental and emotional health. MBSR has been shown to help individuals cope with chronic pain, anxiety, and other stress-related conditions.

How it helps

MBSR can help leukemia patients manage stress and anxiety, which can improve overall mental well-being and potentially support better treatment outcomes.

24



Yoga

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Practice yoga for at least 20 to 30 minutes a day, most days of the week. Choose a style that matches your fitness level and goals, and consider attending a class or using online resources to guide your practice.

TYPICAL STARTING DOSE

30 minutes

Description

Yoga is a mind-body practice that combines physical postures, breathing exercises, and meditation. It enhances flexibility, strength, and mental well-being and is used for stress reduction, relaxation, and overall health improvement.

[Yoga](#) combines breathing, stretching, and relaxation techniques. Practicing yoga may help [\[R, R, R\]](#):

- Reduce [stress](#)
- Improve fitness
- Lower blood pressure and heart rate
- Manage pain

How it helps

Yoga combines physical postures, breathing exercises, and meditation, which can reduce stress and improve physical and mental well-being. This balanced approach can help leukemia patients manage treatment side effects and enhance their quality of life.

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 /mm ³		9 Nov 2025
	Neutrophils (%)	69.3 %		9 Nov 2025
	Platelet Count	215 x10 ³ /mm ³		9 Nov 2025
	Uric Acid	4.4 mg/dL		9 Nov 2025
	Neutrophils (Absolute)	4.8 x10 ⁹ /L		9 Nov 2025
	Hematocrit	51.8 %		9 Nov 2025
	Hemoglobin	17.1 g/dL		9 Nov 2025