

Low Sperm Count

DNA Health Report

REPORT CATEGORY —



REPRODUCTIVE
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

Low sperm count, also known as oligospermia, is a condition in which semen contains fewer sperm than normal. Put in numbers, this means fewer than **15 million** sperm per milliliter of semen [\[R\]](#).

Having a low sperm count may create difficulties in conceiving and psychological stress. It may also be a sign of underlying health issues.

Problems with low sperm count or quality are present in about 1 in 3 couples struggling to get pregnant. Luckily, there are treatment options for people with low sperm count who want to become dads [\[R\]](#).

Risk Factors and Genetics

Key Takeaways:

About **15%** of the differences in male fertility problems may be due to genetics.
Even if you have a high genetic risk, your overall risk may not necessarily be high.
Other risk factors include older age, poor diet, toxin exposure, smoking, and obesity.
Click the **Recommendations** tab for potential dietary and lifestyle changes.

Low sperm count, also known as oligospermia, is a condition in which semen contains fewer sperm than normal (<15 million/mL)[\[R\]](#).

About **15%** of the differences in male fertility problems may be due to genetics [\[R\]](#).

Risk factors for low sperm count include [\[R\]](#):

- Older age
- Health and lifestyle choices such as poor diet, drug and alcohol use, smoking, obesity, and sedentary lifestyle
- Exposure to certain chemicals, toxins, or radiation
- Heat exposure to the testicles from prolonged sitting, sauna, hot tubs, and tight clothing
- Certain medications like antibiotics and anabolic steroids
- Medical conditions like cancer, infections, or STDs

Please note: The research on the genetics of low sperm count is limited. Please take your results with a grain of salt. We will update this report as soon as new genetic variants become available.



TYPICAL LIKELIHOOD

Typical likelihood of low sperm count based on **187,038** genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
HLA-DRA	rs7192	GT
AKR1C3	rs117248788	CA
TNNT3	rs77500032	AA
FAM107B	rs113304676	CC
NPS	rs55976550	GG
CNNM2	rs145444967	GG
AKR1E2	rs77748270	AA
/	rs61865654	AA
MACROH2A2	rs76564905	GG
FAM107B	rs78244802	CC
C10ORF67	rs117013820	CC
FRMD4A	rs117436915	AA
CSTF2T	rs146361107	GG
MINDY3	rs4748207	TT
FAM171A1	rs112246735	CC
PFKP	rs76966676	CC
ATE1	rs12260433	CC
PCDH15	rs61853345	GG
ZWINT	rs191187885	TT
GTPBP4	rs138429262	GG
NRG3	rs183007746	TT
MPP7	rs41305683	TT
LIPN	rs143399974	TT

GENE	SNP	GENOTYPE
CELF2	rs117303890	CC
SUFU	rs77091257	TT
KIAA1217	rs190687239	CC
ADARB2	rs11250679	GG
RNLS	rs79436975	GG
/	rs142421438	AA
NRG3	rs4293073	CC
ARHGAP22	rs151069544	GG
CTNNA3	rs146427273	CC
GTPBP4	rs140088528	TT
MALRD1	rs147633134	GG
ADO	rs150963092	CC
/	rs113275896	TT
LARP4B	rs148276311	CC
AS3MT	rs141933852	GG
MMRN2	rs72807990	CC
NEBL	rs116888374	AA

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

Your Recommendations

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

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

DOSAGE		DOSAGE	
1	Avoid Pollution	2	Avoid Pesticide Exposure
3	Low-Intensity Exercise	4	Aerobic Exercise (Cardio)
5	Coenzyme Q10 (CoQ10)	6	Avoid Organophosphate Pesticide Exposure
7	Avoid Secondhand Smoke	8	Avoid PAHs Exposure
9	Zinc	10	Avoid Phthalate Exposure
11	Ashwagandha	12	L-Carnitine
13	Avoid Exposure To Organic Solvents	14	Melatonin
15	Vitamin C	16	Mediterranean Diet
17	Avoid Lead Exposure	18	Vitamin E
19	Mucuna Pruriens	20	Omega-3 (Fish Oil)
21	Reduce Mobile Phone Use	22	Avoid Air Pollution
23	Maca	24	Avoid Cadmium Exposure
25	Dietary Antioxidants	26	Dietary Omega-3 Fatty Acids
27	N-acetylcysteine (NAC)	28	Lycopene
29	Tribulus	30	Maintain Optimal Vitamin D Levels
31	Black Seed Oil	32	Reduce EMF Exposure

33	Avoid Dioxin		34	Tongkat Ali	200 mg
35	Avoid Mercury Exposure		36	Black Seed (Black Cumin)	1000 mg
37	Black Chokeberry		38	Alpha-Lipoic Acid	100 mg
39	Flower Pollen Extract and Black Seed (Black Cumin)	1000 mg	40	Flower Pollen Extract	20 mg
41	Ubiquinol	100 mg	42	Methylfolate	400 mcg
43	Dietary Vitamin C		44	Dietary Zinc	
45	Avoid Illicit Drugs		46	Avoid Cannabis	
47	Zinc and Folate		48	Ginger	500 mg
49	Fish		50	Oysters	
51	D-Aspartic Acid	2 g	52	Berries	
53	Exercise At Least One Hour a Day	1 hour			

1



Avoid Pollution

IMPACT4 / 5

EVIDENCE4 / 5

How to implement

Minimize your exposure to pollution by staying indoors on days when air quality is poor, using air purifiers at home, and avoiding heavy traffic areas whenever possible. Aim to check the air quality index (AQI) daily, especially if you live in urban or industrial areas, and adjust your outdoor activities accordingly.

Description

Urban environments come with some health hazards. Cars, factories, and other sources increase air [pollution](#). This can play a role in lung and heart disease, diabetes, and allergies. Other forms of pollution like environmental pollutants and noise pollution may also contribute to health problems.

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
- Allergies

Other forms of pollution can cause a number of health issues as well. Environmental pollutants, such as mercury and PCBs (polychlorinated biphenyls), may reduce lifespan [\[R\]](#), [\[R\]](#).

How it helps

Exposure to pollutants in your environment and at your workplace may reduce sperm count and fertility. Examples include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Pesticides (organophosphates)
- Organic solvents and painting materials
- Heavy metals like lead and cadmium
- Phthalates
- Air pollution

Pollutants may reduce sperm count by impairing sperm production and disrupting hormonal balance [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

2



Avoid Pesticide Exposure

IMPACT4 / 5

EVIDENCE3 / 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

Increased exposure to pesticides may reduce sperm count and fertility. **Organophosphates** may be particularly harmful [\[R\]](#), [\[R\]](#), [\[R\]](#).

Pesticides may reduce sperm count by impairing sperm production and disrupting hormonal balance [\[R\]](#), [\[R\]](#), [\[R\]](#).

Ways to reduce your pesticide exposure include [\[R\]](#), [\[R\]](#):

- Eating a variety of fruits and vegetables to avoid high exposure to one pesticide
- Buying organic food when possible
- Thoroughly washing and drying your food, even if it’s labeled organic
- Scrubbing or peeling fruits and vegetables when possible
- Discarding the outer layer of leafy vegetables

3



Low-Intensity Exercise

IMPACT3 / 5

EVIDENCE4 / 5

How to implement

Incorporate 60 minutes of low-intensity activities, such as walking or gentle yoga, into your daily routine. Aim to do this 5 days a week to achieve the best results.

TYPICAL STARTING DOSE

1 hour

Description

Low-intensity exercise, such as walking or gentle yoga, provides numerous health benefits, including improved cardiovascular health, stress reduction, and enhanced overall fitness without the strain of high-intensity workouts.

How it helps

Experts agree that exercise may support male fertility. Both aerobic and resistance exercises may help. They may increase sperm count and the chances of conception [R, R, R, R, R, R, R].

Exercise may help by [R, R, R]:

- Boosting testosterone
- Reducing inflammation
- Protecting sperm from oxidative stress

On the other hand, very intense exercise may reduce sperm quality. Talk to your doctor before taking part in a new exercise program [R].

4



Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE4 / 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

Experts agree that exercise may support male fertility. Aerobic exercise, both alone and combined with resistance training, may help. They may increase sperm count and the chances of conception [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Exercise may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Boosting testosterone
- Reducing inflammation
- Protecting sperm from oxidative stress

On the other hand, very intense exercise may reduce sperm quality. Talk to your doctor before taking part in a new exercise program [\[R\]](#).

5



Coenzyme Q10 (CoQ10)

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

Take a 100 mg Coenzyme Q10 (CoQ10) supplement once daily with a meal that contains fat for better absorption.

TYPICAL STARTING DOSE

100 mg

Description

Coenzyme Q10 (CoQ10) is a naturally occurring antioxidant that plays a crucial role in cellular energy production. It is often taken as a supplement to support heart health, improve energy levels, and provide antioxidant protection, especially for individuals with certain medical conditions or as they age.

[Coenzyme Q10](#) (CoQ10) is a compound that helps enzymes work better. By doing so, CoQ10 helps improve [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Energy levels
- Antioxidant protection
- Heart health
- Muscle strength
- Blood sugar control

The amount of CoQ10 made by your body decreases as you get older. Luckily, you can also get it from food or supplements. Good sources of CoQ10 include [\[R\]](#), [\[R\]](#):

- Organ meats
- Fatty fish
- Whole grains

How it helps

Coenzyme Q10 (60-400 mg/day for 3-6 months) may help **improve sperm count and quality** in people with fertility problems [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

CoQ10 may help by providing sperm with energy and reducing oxidative stress [\[R\]](#), [\[R\]](#), [\[R\]](#).

Note that CoQ10 is fat-soluble. This means that **taking it with a fatty meal should help you absorb it better** [\[R\]](#).

Please note: *CoQ10 may reduce the effectiveness of blood thinners such as warfarin. Talk to your doctor before taking CoQ10* [\[R\]](#).

6



Avoid Organophosphate Pesticide Exposure

IMPACT3 / 5

EVIDENCE3 / 5

How to implement

To reduce organophosphate pesticide exposure, buy organic produce when possible, thoroughly wash and peel fruits and vegetables, avoid using chemical pesticides in your home and garden, and wear protective clothing and a mask if you must handle pesticides for agricultural or landscaping work.

Description

Reducing organophosphate exposure involves minimizing contact with pesticides and insecticides containing these chemicals, which can protect against potential health risks such as neurotoxicity and respiratory issues, particularly for individuals working in agriculture or pest control.

Organophosphates (OP) are the most widely used pesticides worldwide. They include [\[R\]](#):

- Parathion
- Malathion
- Chlorpyrifos
- Diazinon
- Phosmet

Chronic exposure to OPs has been linked to [\[R\]](#), [\[R\]](#):

- Fertility problems
- Cognitive problems
- Nerve damage
- Cancer and gene damage

How it helps

Organophosphate pesticides may hinder sperm production and affect their quality by disrupting the hormonal balance. Thus, reducing exposure might increase sperm count and improve fertility.

A [meta-analysis of 9 studies](#) associated organophosphate exposure with **low sperm count, sperm motility, sperm concentration, and ejaculate volume** [\[R\]](#).

7



Avoid Secondhand Smoke

IMPACT

3 / 5

EVIDENCE

3 / 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

Smoking is linked to lower sperm count. Both smoking and exposure to secondhand smoke may be harmful [\[R, R, R, R, R, R, R, R\]](#).

Smoking may increase oxidative damage to sperm [\[R, R, R, R\]](#).

Experts recommend quitting smoking to help improve sperm quality and the chances of conception [\[R, R\]](#).

8



Avoid PAHs Exposure

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Minimize your exposure to Polycyclic Aromatic Hydrocarbons (PAHs) by avoiding or reducing consumption of charred, grilled, or smoked foods, not smoking or avoiding secondhand smoke, and limiting time spent in areas with heavy traffic or industrial fumes. Use exhaust fans in kitchens and ensure proper ventilation when cooking at high temperatures to reduce indoor levels of PAHs.

Description

PAHs or Polycyclic Aromatic Hydrocarbons are harmful substances found in smoke and grilled foods. Try to limit exposure to them for better health. For example, avoid inhaling smoke from cigarettes or barbeques and choose alternative cooking techniques over grilling. Minimizing PAHs can reduce the risk of several health issues, particularly lung and skin diseases.

How it helps

A systematic review of 17 studies found a negative association between PAH metabolites and sperm volume, concentration, motility, and morphology, as well as increased DNA degeneration [\[R\]](#).

9



Zinc

IMPACT

3 / 5

EVIDENCE

3 / 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

Lower zinc levels in the semen are linked to lower sperm quality [\[R\]](#), [\[R\]](#), [\[R\]](#).

A higher intake of zinc may be linked to healthier sperm [\[R\]](#), [\[R\]](#), [\[R\]](#).

Supplementing with zinc, **alone or combined with folate**, may improve sperm count and quality. However, not all studies found the benefits of this combination on sperm quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Zinc and folate may help by [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Reducing oxidative damage to sperm
- Increasing testosterone levels
- Boosting sperm production

Please note: *A high intake of zinc may cause stomach pain and gut irritation. Medical bodies recommend against taking more than **40 mg** of zinc per day* [\[R\]](#), [\[R\]](#).

10

Avoid Phthalate Exposure

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

To avoid phthalate exposure, check product labels and choose phthalate-free options for personal care items, plastics (look for recycling codes 3 and 7 or the letters 'V' or 'PVC'), and household products. Additionally, reduce the use of plastic containers for food storage, especially those not marked as 'phthalate-free', and avoid microwaving food in plastic containers. Aim to make these changes consistently in your daily life for long-term health benefits.

Description

Avoiding phthalate exposure involves choosing phthalate-free products, such as personal care items and plastics, to minimize potential endocrine-disrupting effects and protect reproductive and hormonal health.

How it helps

Phthalates, found in plastics and personal care products, can disrupt hormone levels and negatively affect sperm production. Reducing exposure to phthalates may help improve sperm count and quality by minimizing these hormonal disruptions.

5 studies for phthalate esters: After stratification by specific chemical class, consistent increases in the risk of abnormal sperm quality were found in the phthalate ester group (OR = 1.52) [\[R\]](#).

A total of 12 literature were included for meta-analysis, excluding literature with different effect sizes. The results of meta-analysis indicated that monobutyl phthalate (MBP) and monobenzyl phthalate (MBzP) in urine were **negatively correlated with semen concentration**. Furthermore, the level of Di-(2-ethylhexyl) phthalate (DEHP) in semen was **negatively correlated with semen concentration**. However, the associations of other metabolites with sperm motility and sperm morphology were not statistically significant [\[R\]](#).

Overall, 20 studies met our inclusion criteria. Subsequently, 14 studies were included in the meta-analysis. Most phthalate metabolites were associated with low sperm count and/or reduced motility [\[R\]](#).

PERSONALIZED TO YOUR GENES

Exposure to phthalates may decrease sperm concentration and count more in people with your [FAS](#) gene variant [\[R\]](#).

Exposure to phthalates may decrease sperm concentration and count more in people with your [FASLG](#) gene variant [\[R\]](#).

Exposure to phthalates may decrease sperm concentration and count more in people with your [CASP3](#) gene variant [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
ACTA2	rs2234767	GG	
SUCO	rs763110	TC	
CENPU	rs12108497	CC	

11



Ashwagandha

IMPACT

3 / 5

EVIDENCE

2 / 5

How to implement

Take 250-600 mg of ashwagandha supplement daily. It can be consumed with water or a meal, depending on your preference or as advised by a healthcare provider.

TYPICAL STARTING DOSE

120 mg

Description

[Ashwagandha](#) (*Withania somnifera*) is an herb used in traditional Indian medicine. This herb is known as an *adaptogen* because it helps people adapt to stress.

This herb is known as an *adaptogen* because it helps people adapt to stress [\[R\]](#), [\[R\]](#).

How it helps

Ashwagandha root powder (675-5,000 mg/day for 3 months) may help **improve sperm count and quality** in people with fertility problems [\[R\]](#), [\[R\]](#).

Ashwagandha may help by [\[R\]](#):

- Reducing oxidative stress
- Balancing sex hormone levels

Please note: *There is not enough safety data for long-term ashwagandha supplementation at doses above 1250 mg/day.*

12



L-Carnitine

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Take 500 mg of L-carnitine supplement daily with a glass of water, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

L-carnitine is an amino acid-like compound that plays a role in energy metabolism and helps prevent toxic substances from building up in cells. It is often used in dietary supplements for its potential to support muscle recovery, reduce fatigue, and enhance athletic performance.

[L-carnitine](#) is a compound that helps you burn fat. It also prevents toxic substances from building up in cells [\[R\]](#).

Your body can usually make enough carnitine to meet its needs. You can also get it from **meat and dairy products** [\[R\]](#).

People use L-carnitine for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Heart problems
- Overactive thyroid
- Fertility problems
- Blood sugar control
- Weight control

How it helps

L-carnitine (2-3 g/day for 2-4 months) may help **improve sperm count and quality**. It may help both healthy people and those with fertility problems [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

However, a combination of L-carnitine and acetyl-L-carnitine may improve all sperm parameters **except sperm count** [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

L-carnitine may help by providing energy to sperm and reducing oxidative stress [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Supplementing with L-carnitine at approximately 3 g/day may cause nausea, vomiting, abdominal cramps, diarrhea, and a "fishy" body smell* [\[R\]](#).

13



Avoid Exposure To Organic Solvents

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Ensure to work in well-ventilated areas and wear protective gear when handling products like paints, varnishes, and adhesives. When possible, choose solvent-free or water-based products to minimize exposure. Regularly check labels for any solvents listed and strive to limit their use in both personal and professional settings.

Description

Avoiding exposure to organic solvents, commonly found in paints, adhesives, and cleaning products, can protect against the potential health risks associated with inhalation or skin contact, such as respiratory issues and skin irritation.

Organic solvents are used in various industries and workplaces for tasks like cleaning, painting, and manufacturing.

However, their use can be hazardous to workers' health. Exposure to these solvents can lead to problems such as breathing difficulties, skin irritation, and reduced fertility [\[R\]](#).

How it helps

Exposure to organic solvents is linked to lower sperm count [\[R\]](#).

They may reduce sperm count by impairing sperm production and disrupting hormonal balance [\[R\]](#), [\[R\]](#), [\[R\]](#).

Employers and workers should take proper precautions to minimize exposure to organic solvents and ensure a safe working environment.

14



Melatonin

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Take 500 mcg of melatonin orally, about 30 minutes before bedtime, to help with sleep. It can be taken daily as needed.

TYPICAL STARTING DOSE

500 mcg

Description

Melatonin is a natural hormone produced by the pineal gland in the brain that helps regulate the sleep-wake cycle. It plays a crucial role in promoting sleep onset and maintaining a consistent sleep pattern, making it a commonly used supplement for managing sleep disorders and jet lag.

[Melatonin](#) is an important sleep hormone. Bright light at night may prevent your body from making enough melatonin [\[R, R, R\]](#).

Your body makes melatonin on its own. However, some people take melatonin supplements to help them sleep. It may help with jet lag in particular [\[R, R, R\]](#).

How it helps

A meta-analysis of 31 studies found beneficial effects of melatonin supplementation on sperm count, motility, and viability, testicular weight and viability, serum levels of testosterone and LH, and testicular levels of MDA, superoxide dismutase, glutathione peroxidase, and glutathione [\[R\]](#).

Melatonin may help by protecting sperm from oxidative stress.

15



Vitamin C

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Take 500-2000 mg of vitamin C supplement daily. It can be taken at any time of the day, with or without food, according to personal preference or tolerance.

TYPICAL STARTING DOSE

500 mg

Description

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

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

- Citrus Fruits
- Peppers
- Brussel sprouts
- Kiwi
- Broccoli
- Tomato
- Cantaloupe
- Cauliflower
- Spinach

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

A higher intake of vitamin C is linked to better sperm quality [\[R\]](#), [\[R\]](#), [\[R\]](#).

In line with this, vitamin C (250-500 mg/day for 3-6 months) may improve sperm count and quality. However, not all studies found this benefit [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin C may help by [\[R\]](#), [\[R\]](#):

- Protecting sperm from oxidative damage
- Supporting sperm growth and development

Please note: *Supplementing with vitamin C is linked to a slightly higher risk of kidney stones in men. Talk to your doctor before taking vitamin C* [\[R\]](#), [\[R\]](#).

16



Mediterranean Diet

IMPACT2 / 5

EVIDENCE3 / 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

Diets high in unhealthy fats and sugar, like Western-style diets, are linked to lower [\[R, R, R, R, R\]](#):

- Sperm count
- Chances of conception

Following a Mediterranean-style diet may **improve sperm count and quality** [\[R, R, R, R, R\]](#).

17



Avoid Lead Exposure

IMPACT2 / 5

EVIDENCE3 / 5

How to implement

Prevent lead exposure by using cold water for drinking and cooking, regularly cleaning dust from windowsills and floors, and ensuring that your home's paint is not chipping if it was built before 1978. For occupations involving potential lead exposure, use protective gear and follow safety protocols. Test your home for lead if it's old or you're concerned about contamination.

Description

Lead is a heavy metal. It is naturally found in the environment in small amounts [\[R\]](#), [\[R\]](#).

Exposure to lead can cause it to build up in the body. A buildup of lead can contribute to oxidative stress and cell damage. This is called **lead poisoning** [\[R\]](#), [\[R\]](#).

Lead is no longer used in the manufacturing of some products like gasoline and paint. However, it can still be found in some pipes, batteries, and the wall paint of older homes [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

High exposure to lead is linked to a slightly lower sperm count [\[R\]](#), [\[R\]](#).

Lead may reduce sperm count by impairing sperm production [\[R\]](#), [\[R\]](#), [\[R\]](#).

Some helpful tips to reduce lead exposure include [\[R\]](#), [\[R\]](#):

- Washing hands, tools, and toys
- Cleaning dusty surfaces
- Removing shoes before entering the house
- Running cold water for a minute before using it if your building has old plumbing with lead pipes
- Keeping your home well maintained, especially if it has lead-based paint
- Wearing protective clothing at work
- Preventing children from playing on soil
- Eating a healthy diet to reduce lead absorption

18



Vitamin E

IMPACT

2 / 5

EVIDENCE

3 / 5

How to implement

Take 200 IU of Vitamin E daily as a supplement, preferably with a meal that contains fat to enhance absorption.

TYPICAL STARTING DOSE

200 iu

Description

Vitamin E is a fat-soluble antioxidant found in various foods, such as nuts and seeds. It is known for its ability to protect cells from oxidative damage, support immune function, and may play a role in skin health. Vitamin E supplements are used to bolster antioxidant defenses and may be beneficial for conditions related to oxidative stress.

[Vitamin E](#) is an antioxidant important for the immune system and for heart health [\[R\]](#).

Plant-based foods have the most vitamin E. These include [\[R\]](#):

- Wheat germ
- Sunflower seeds
- Almonds
- Plant oils

Adults need about **15 mg** of vitamin E per day [\[R\]](#).

How it helps

Vitamin E supplementation (100-600 mg/day for 3-6 months) may help **improve sperm count** and quality [\[R, R, R, R, R\]](#).

Vitamin E may also help when combined with other supplements, such as [\[R, R, R, R, R, R\]](#):

- Vitamin C
- Selenium
- Omega-3s (DHA)
- Folate
- Coenzyme Q10

However, one such blend did not improve birth rates or sperm quality in one study [\[R\]](#).

Vitamin E may help by protecting sperm from oxidative damage [\[R, R\]](#).

Please note: *While dietary vitamin E is generally considered safe, vitamin E supplements have been linked to prostate cancer. They may also not be the best option for pregnant people. Those who have heart disease, bleeding disorders, or other conditions may also need to avoid them. Consult your doctor before taking vitamin E supplements [\[R\]](#).*

19



Mucuna Pruriens

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 300 to 500 mg of standardized Mucuna pruriens extract once daily, preferably with water. For consistent benefits, consider taking it at the same time each day.

TYPICAL STARTING DOSE

300 mg

Description

Mucuna pruriens is a tropical legume known for its seeds, which contain L-dopa, a precursor to dopamine. It is used in traditional medicine for its potential to support mood, cognitive function, and overall well-being.

[Mucuna pruriens](#) is an edible legume native to China and India. It is also known as cowhage or the “velvet bean” [\[R\]](#).

An important compound in *Mucuna pruriens* is *L-DOPA*, which helps make the chemical messenger [dopamine](#). Extracts of *Mucuna pruriens* may support fertility and protect the nerves [\[R\]](#).

How it helps

Taking ***Mucuna pruriens* powder (5 g/day for 3 months)** may improve sperm count and quality in people with fertility problems [\[R, R, R, R\]](#).

Mucuna pruriens may help by [\[R, R, R\]](#):

- Balancing sex hormones
- Reducing oxidative stress
- Supporting sperm growth and development

20



Omega-3 (Fish Oil)

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 1-2 g of omega-3 (fish oil) supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

500 mg

Description

Omega-3 fatty acids are essential fats found in fatty fish like salmon, flaxseeds, and walnuts. They are known for their potential cardiovascular and brain health benefits, including reducing the risk of heart disease and supporting cognitive function.

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

A low intake of omega-3s may be linked to poor sperm count and quality [\[R\]](#), [\[R\]](#), [\[R\]](#).

Omega-3 supplements (1.8 g/day for 8 months) may improve sperm quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Omega-3s may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Supporting healthy growth and development of sperm
- Reducing oxidative stress

Please note: Fish oil can interact with blood thinners (like aspirin, Plavix, Coumadin). Consult your doctor before taking fish oil [\[R\]](#).

21



Reduce Mobile Phone Use

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Limit your mobile phone use to less than 2 hours per day for non-work-related activities. Avoid using your phone during meal times and at least 1 hour before bedtime to improve sleep quality and reduce eye strain.

TYPICAL STARTING DOSE

2 hours

Description

Reducing mobile phone use involves limiting the time spent on smartphones and other electronic devices, which can help alleviate digital eye strain, improve sleep quality, and reduce the potential for distraction-related accidents.

Mobile devices like smartphones and tablets have become indispensable for:

- Communication
- Information searching
- Video gaming
- Social media participation

However, their excessive use may increase the risk of health conditions, such as [\[R\]](#), [\[R\]](#):

- Neck problems
- Carpal tunnel syndrome
- Sleep problems
- Mood disorders

How it helps

Excessive mobile phone use, specifically near the pelvic area, generates heat and electromagnetic radiation which may impair sperm production and quality. Reducing mobile phone use may, therefore, assist in increasing sperm count and improving overall reproductive health.

We evaluated 18 studies that included 4280 samples. Exposure to mobile phones is associated with reduced sperm motility, viability, and concentration. The decrease in sperm quality after RF-EMW exposure was not significant, even when mobile phone usage increased [\[R\]](#).

Systemic review showed that results of most of the human studies and in vitro laboratory studies indicated mobile phone use or radiofrequency exposure had negative effects on the various semen parameters studied. However, meta-analysis indicated that mobile phone use had no adverse effects on semen parameters in human studies [\[R\]](#).

22



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

Exposure to high levels of air pollution is linked to lower sperm count and other sperm parameters. However, some studies say the effect is not significant [\[R\]](#), [\[R\]](#), [\[R\]](#).

Tips for lowering exposure to air pollution include [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Monitoring air pollution levels regularly
- Using an appropriate face mask when pollution levels are high
- Avoiding outdoor exercise when pollution levels are high
- Cleaning and maintaining air filtration systems
- Not burning wood or trash
- Using protective respiratory equipment at work, if needed

23



Maca

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take 1.5 to 3 grams of maca root powder daily, mixed into a glass of water or a smoothie, preferably in the morning. Continue this regimen for at least 6 to 12 weeks to experience potential benefits.

TYPICAL STARTING DOSE

2 g

Description

Maca is a root vegetable native to Peru and is often used as a dietary supplement for its potential to boost energy and enhance sexual function. While research on maca's health benefits is ongoing, it is valued for its potential adaptogenic properties and use in traditional medicine.

Maca (*Lepidium meyenii*) is a plant from the mustard family. It is native to the Andes mountains of Peru [\[R\]](#).

Maca is used as a food. People also take it as a supplement to potentially support [\[R\]](#):

- Sexual function
- Fertility
- Mood

How it helps

Maca (1.5-3 g/day for 3-4 months) may improve sperm count and quality [\[R, R, R\]](#).

Maca may help by supporting the growth and development of sperm [\[R\]](#).

24



Avoid Cadmium Exposure

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

To avoid cadmium exposure, refrain from smoking or exposure to secondhand smoke, reduce consumption of foods high in cadmium like shellfish, liver, kidney meats, and certain leafy vegetables, and use ceramic or glass containers instead of plastic when microwaving food. Limit intake of cadmium-contaminated workplace air by using protective gear if you work in battery manufacturing, welding, or metal refining industries.

Description

Avoiding cadmium exposure is essential to prevent potential health risks associated with this heavy metal, such as kidney damage and increased cancer risk. Reducing exposure to cadmium-containing products and contaminated foods is crucial.

Heavy metals are elements naturally found in the environment. They are also used for agricultural, industrial, and medicinal purposes. Some can even be found in small amounts in your body [\[R\]](#), [\[R\]](#).

Long-term exposure to high amounts of heavy metals can be harmful to your health [\[R\]](#), [\[R\]](#).

Heavy metals that are most often linked to health problems include [\[R\]](#), [\[R\]](#):

- Lead
- Cadmium
- Arsenic
- Chromium
- Mercury

How it helps

A meta-analysis of 11 studies and 1707 subjects associated high semen cadmium levels with infertility [\[R\]](#).

Another meta-analysis (20 studies) found significant differences in fertility associated with three metal ions: lead, cadmium, and zinc. Low fertility correlated with higher semen lead and cadmium levels and lower semen zinc levels [\[R\]](#).

In a study of 125 male cigarette smokers with infertility, heavy smoking was associated with low sperm count, motility, and morphology and increased seminal cadmium levels [\[R\]](#).

Cadmium, lead, and mercury showed the strongest evidence of harmful effects, while arsenic's impact was less certain at low exposure levels [\[R\]](#).

Cadmium is known to damage sperm and decrease sperm production.

25



Dietary Antioxidants

IMPACT2 / 5

EVIDENCE2 / 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

A high intake of dietary antioxidants is linked to increased sperm quality. Examples include [\[R\]](#), [\[R\]](#):

- Lycopene
- Beta-carotene
- Selenium
- Zinc
- Vitamins C and E

They may protect sperm cells against oxidative damage [\[R\]](#).

You can get dietary antioxidants by eating a variety of **fresh fruits and vegetables**.

26



Dietary Omega-3 Fatty Acids

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Incorporate foods high in omega-3 fatty acids into your diet daily. This includes eating fish such as salmon, mackerel, and sardines at least twice a week. Alternatively, include a tablespoon of flaxseed oil or chia seeds in your daily diet.

Description

[Omega-3 fatty acids](#) are some of the healthiest fats we can eat. They help lower inflammation and protect the heart, brain, and eyes. Our bodies produce less omega-3s than we need for optimal health, so it's important to get enough through food or supplements [\[R\]](#), [\[R\]](#), [\[R\]](#).

There are three major types of omega-3s: ALA, EPA, and DHA. **EPA and DHA are vital for mental and heart health** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal health, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don't eat fish regularly [\[R\]](#).

How it helps

A low intake of omega-3s may be linked to poor sperm count and quality [\[R\]](#), [\[R\]](#), [\[R\]](#).

Omega-3s may help by [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Supporting healthy growth and development of sperm
- Reducing oxidative stress

27



N-acetylcysteine (NAC)

IMPACT2 / 5

EVIDENCE2 / 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

600 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

N-acetylcysteine (600 mg/day for 3 months) may help **improve sperm count and quality** in people with fertility problems [\[R\]](#).

Combining NAC and other ingredients (e.g. antioxidants) may have similar effects [\[R\]](#), [\[R\]](#), [\[R\]](#).

NAC may help by [\[R\]](#), [\[R\]](#):

- Protecting sperm from oxidative damage
- Balancing sex hormones
- Helping sperm grow and develop

28



Lycopene

IMPACT

2 / 5

EVIDENCE

2 / 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

Lycopene supplements (4-25 mg/day for 12 weeks) may boost sperm count and concentration [R](#), [R](#), [R](#).

However, the evidence is mixed and of low quality [R](#), [R](#).

Lycopene may help by reducing oxidative stress [R](#), [R](#), [R](#).

29



Tribulus

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Take 250-1500 mg of Tribulus terrestris extract daily, divided into one to three doses, with meals. Start with the lower dose to assess tolerance and gradually increase as needed. This regimen can be followed for up to 90 days, after which a break or reassessment is recommended.

TYPICAL STARTING DOSE

250 mg

Description

Tribulus is an herb commonly used in traditional medicine for its potential to enhance athletic performance and libido. It is believed to contain active compounds like protodioscin, which may contribute to its aphrodisiac and adaptogenic effects.

[Tribulus](#) (*Tribulus terrestris*) grows in parts of Europe, Asia, and Africa. It’s been used in traditional Chinese and Indian medicine for centuries [\[R, R\]](#).

Today, people use tribulus to potentially help with [\[R, R\]](#):

- High blood pressure
- Sexual dysfunction and infertility

How it helps

In people with fertility problems, **tribulus (750 mg/day for 2-3 months)** may improve sperm count and quality. However, one study didn’t show this benefit [\[R, R, R\]](#).

Tribulus may help by reducing oxidative stress. Some studies suggest tribulus may increase the levels of male sex hormones, but the majority of evidence doesn't support this [\[R, R, R, R\]](#).

30

Maintain Optimal Vitamin D Levels

IMPACT

1 / 5

EVIDENCE

2 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE
1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs [vitamin D](#) for strong bones. Vitamin D also plays a role in [\[R\]](#):

- Mood
- Immunity
- Heart health
- Blood sugar control

[Sunlight](#) is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [\[R\]](#), [\[R\]](#).

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [\[R\]](#).

How it helps

Higher levels of vitamin D in the blood are linked to better sperm count and quality [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

However, it's not sure if vitamin D supplementation helps improve sperm count [\[R\]](#).

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day* [\[R\]](#).

31



Black Seed Oil

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take one to two teaspoons (5-10ml) of black seed oil twice daily, preferably before meals. For capsule forms, follow the manufacturer's instructions, commonly 500mg capsules twice daily. Continue this regimen for up to 8 weeks to evaluate its effects.

TYPICAL STARTING DOSE

2 tsp

Description

Both black seed extract and black seed oil have been traditionally used for their potential health benefits, including anti-inflammatory and antioxidant properties. They may support overall wellness and immune function when incorporated into a balanced diet.

[Black seed](#) (black cumin) and its oil are used in cooking and traditional medicine [\[R\]](#).

People mainly use black seed for [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Allergies
- Joint pain

How it helps

Based on a single study, **black seed oil (5 mL for 2 months)** may improve sperm count and quality in people with fertility problems [\[R\]](#).

It may help by reducing oxidative stress [\[R\]](#).

32



Reduce EMF Exposure

IMPACT1 / 5

EVIDENCE1 / 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 18 studies associated exposure to mobile phones with reduced sperm motility, viability, and concentration, while its effects on sperm quality were non-significant [R].

Another systematic review found negative effects of mobile phone use or radiofrequency exposure on the various semen parameters studied. However, meta-analysis indicated that mobile phone use had no adverse effects on semen parameters in human studies [R].

33



Avoid Dioxin

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Reduce consumption of animal fats, since dioxins accumulate in fat tissue. Choose lean cuts of meat, and opt for organic or pasture-raised when possible to minimize exposure. Additionally, avoid burning trash that contains plastic, treated wood, or chlorinated chemicals to prevent dioxin release into the environment.

Description

Avoiding exposure to dioxin, a highly toxic environmental pollutant, can help protect against serious health risks, including cancer and hormonal disruptions. Reducing contact with dioxin-contaminated sources such as certain foods and industrial emissions is essential for long-term health.

How it helps

A study of 135 males exposed to TCDD and 184 controls found that exposure to TCDD reduces sperm count and motility during childhood but has opposite effects during puberty. Another study (97 participants) found that *in utero* exposure to relatively low dioxin levels reduces sperm concentration, progressive motility, and total motile count [R, R].

Dioxin interferes with the hormones that produce sperm.

34



Tongkat Ali

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200-400 mg of Tongkat Ali extract daily, preferably in the morning, to maintain consistent levels in your body. This dosage is typically taken in a single dose or divided into two doses throughout the day. Use for a period of 5-9 weeks followed by a break or as advised by a healthcare professional.

TYPICAL STARTING DOSE

200 mg

Description

Tongkat Ali is a plant native to Southeast Asia. Traditionally and today, its roots have been used as a herbal remedy to boost energy, improve libido, and support overall vitality. It's typically consumed as a tea or in powdered form. The main compounds in Tongkat Ali are quassinoids, which are believed to have potential benefits for hormonal balance and sexual health.

[Tongkat ali](#) or longjack (*Eurycoma longifolia*) is a plant native to Southeast Asia. It has a long history in traditional medicine [\[R\]](#).

Today, people mainly use extracts from its root to support erectile function and fertility [\[R\]](#).

How it helps

Based on a single study, tongkat ali extract (200 mg/day for 3-9 months) may improve sperm count and quality [\[R\]](#).

It may help by supporting testosterone production [\[R\]](#), [\[R\]](#).

35

Avoid Mercury Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Limit consumption of large fish such as shark, swordfish, king mackerel, and tilefish, which are known to have higher mercury levels. Opt for smaller fish like salmon, shrimp, pollock, and catfish, and limit seafood intake to 8-12 ounces (two to three servings) per week. Check and follow local advisories regarding the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas.

Description

Avoiding exposure to mercury, a toxic heavy metal found in certain seafood and environmental sources, is essential to prevent adverse health effects, including neurological damage and developmental issues.

Mercury and other [heavy metals](#) are found in the soil, water, food, and some commonly-used household products. They adversely affect the environment and living organisms. According to some studies, mercury is considered **the most toxic heavy metal** in the environment [\[R\]](#), [\[R\]](#).

A major source of mercury exposure is seafood, especially large fish such as [\[R\]](#):

- Tuna
- Shark
- Swordfish

How it helps

Avoiding mercury exposure could potentially improve sperm count as mercury is a known toxin that can damage cells, including sperm. Hence, reducing exposure may improve sperm health and increase the count.

A literature review revealed several negative impacts of mercury on human reproduction. These included effects on semen quality, including reduced sperm count, motility, and changes in morphology that may reduce fertility potential. There may also be an effect in changing reproductive hormone levels [\[R\]](#).

Studies on various metals have shown mixed results, with some well-designed ones demonstrating harmful effects, especially in the case of cadmium, lead, and mercury. However, limitations in participant numbers, lack of source details, and failure to account for other influencing factors have affected the overall certainty of these findings. The impact of low-level exposure to metals like arsenic remains less certain [\[R\]](#).

A study investigated male occupational exposure to elemental mercury and reproductive outcomes. It included 247 highly exposed white male workers and 255 nonexposed counterparts. The study found no significant links between mercury exposure and reduced fertility, birth defects, or childhood illnesses [\[R\]](#).

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Black Seed (Black Cumin)

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 1000 mg of black seed (black cumin) supplement daily, preferably split into two doses of 500 mg each, one in the morning and one in the evening.

TYPICAL STARTING DOSE

1000 mg

Description

Black seed, also known as black cumin or *Nigella sativa*, has been used for its potential health benefits in traditional medicine. It is believed to have anti-inflammatory, antioxidant, and immune-boosting properties.

[Black seed](#) (black cumin) and its oil are used in cooking and traditional medicine [\[R\]](#).

People use black seed for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Asthma
- Allergies
- High blood sugar
- High blood pressure
- Joint pain

How it helps

In a placebo-controlled trial of 62 infertile men, supplementation with a combination of palm pollen extract (350 mg) and black seed powder extract (250 mg) 2x/day for 3 months improved sperm count, progressive motility, and rapid progressivity while increasing testosterone, FSH, and LH levels [\[R\]](#).

Based on a single study, **black seed oil (5 mL for 2 months)** may improve sperm count and quality in people with fertility problems [\[R\]](#).

It may help by reducing oxidative stress [\[R\]](#).

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Black Chokeberry

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate black chokeberry (*Aronia melanocarpa*) in your diet by consuming 100-200 grams of fresh berries daily. If using a concentrated form like juice or extracts, follow the manufacturer's instructions, usually around 100 ml of juice or 500 mg of extract per day, for at least 8-10 weeks to observe potential health benefits.

Description

Black chokeberry is a fruit known for its high content of antioxidants and potential health benefits. It may support cardiovascular health and provide immune system support when incorporated into a balanced diet.

How it helps

Black chokeberry helps increase sperm count by boosting antioxidant levels that protect sperm cells from damage. Additionally, its anti-inflammatory properties can improve overall reproductive health.

In a placebo-controlled trial of 38 men with oligospermia, supplementation with anthocyanins from chokeberry **increased fructose levels in semen** [\[R\]](#).

38



Alpha-Lipoic Acid

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 600-1800 mg of alpha-lipoic acid daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

100 mg

Description

[Alpha-lipoic acid](#) is a natural antioxidant found in almost every cell in your body. People use alpha-lipoic acid to help with issues like skin aging, weight loss, and high blood sugar [\[R, R, R\]](#).

People use alpha-lipoic acid to help with [\[R, R, R, R\]](#):

- Complications of high blood sugar
- Skin aging
- Weight loss
- Carpal tunnel syndrome

How it helps

Based on a single study, alpha-lipoic acid (600 mg/day for 12 weeks) may improve sperm count and quality in people with fertility problems. It may help by reducing oxidative damage [\[R, R\]](#).

39

Flower Pollen Extract and Black Seed (Black Cumin)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a supplement that combines flower pollen extract and black seed oil. The dosage typically recommended is 500 mg of each, taken twice daily with meals. Continue this regimen for at least two months to evaluate its effects.

TYPICAL STARTING DOSE
1000 mg

Description

Flower pollen extract is sometimes used as a dietary supplement for its potential to support prostate health and reduce symptoms of benign prostatic hyperplasia (BPH) in men. It contains nutrients and compounds that may have anti-inflammatory and antioxidant properties. Black seed, also known as black cumin or *Nigella sativa*, has been used for its anti-inflammatory, antioxidant, and immune-boosting properties.

How it helps

In a placebo-controlled trial of 62 infertile men, supplementation with a combination of palm pollen extract (350 mg) and black seed powder extract (250 mg) 2x/day for 3 months improved sperm count, progressive motility, and rapid progressivity while increasing testosterone, FSH, and LH levels [R].

Flower pollen extract enhances the sperm's vitality, mobility, and concentration by supplying essential nutrients. Black seed has fertility-enhancing effects, specifically improving sperm count, due to its antioxidant and hormone-balancing properties.

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Flower Pollen Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a flower pollen extract supplement, typically available in capsule or tablet form, daily. The common dosage ranges from 20 to 40 mg per day, and it's recommended to follow the specific dosing instructions on the product label or as directed by a healthcare professional.

TYPICAL STARTING DOSE
20 mg

Description

Flower pollen extract is sometimes used as a dietary supplement for its potential to support prostate health and reduce symptoms of benign prostatic hyperplasia (BPH) in men. It contains nutrients and compounds that may have anti-inflammatory and antioxidant properties.

How it helps

In a placebo-controlled trial of 62 infertile men, supplementation with a combination of palm pollen extract (350 mg) and black seed powder extract (250 mg) 2x/day for 3 months improved sperm count, progressive motility, and rapid progressivity while increasing testosterone, FSH, and LH levels [R].

Flower pollen extract is rich in nutrients, including vitamins, minerals, and protein.

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Ubiquinol

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 100 to 200 mg of ubiquinol daily, preferably with a fatty meal to enhance absorption. This dosage can be adjusted based on individual health needs and under the guidance of a healthcare professional. Continue this supplementation daily for ongoing support of heart health and energy levels.

TYPICAL STARTING DOSE

100 mg

Description

Ubiquinol is the reduced form of coenzyme Q10 (CoQ10), a compound that plays a crucial role in energy production within cells. It is used as a supplement to support heart health, improve energy levels, and combat oxidative stress.

How it helps

Ubiquinol, a form of Coenzyme Q10, helps improve sperm count by supporting energy production in cells, including those responsible for sperm production and function. It also has antioxidant properties that protect sperm cells from damage, thereby increasing count and quality.

A total of 228 men with unexplained infertility were randomly assigned 1:1 into 2 groups. Group 1 (114) received 200 mg ubiquinol daily by mouth for 26 weeks and group 2 (114) received a similar regimen of placebo. Ubiquinol was significantly effective in men with unexplained oligoasthenoteratozoospermia for improving sperm density, sperm motility, and sperm morphology [\[R\]](#).

How to implement

TYPICAL STARTING DOSE

400 mcg

Description

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

- Making DNA
- Metabolism
- Energy production

SelfDecode recommends L-methylfolate as the preferred folate supplement for those who need one. It is superior to folic acid because it doesn't require activation, but the research is still ongoing [\[R, R\]](#).

How it helps

Folate is a B-vitamin that plays a crucial role in the production of DNA and RNA; having adequate levels is important for healthy sperm development.

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Dietary Vitamin C

IMPACT

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EVIDENCE

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How to implement

Incorporate foods rich in Vitamin C into your daily diet, such as oranges, strawberries, red peppers, kale, and broccoli. Aim to consume 5 servings of fruits and vegetables per day to meet the recommended dietary allowance of Vitamin C, which is 90 mg for adult men and 75 mg for adult women.

Description

Vitamin C is an antioxidant that supports the immune system, collagen production, and wound healing. It also enhances iron absorption from plant-based foods and contributes to overall health.

[Vitamin C](#) is an essential nutrient. This means that our bodies can’t produce it on their own, so we have to get it from food or supplements [\[R\]](#).

Vitamin C has antioxidant properties. It supports immunity, heart health, and wound healing [\[R\]](#), [\[R\]](#).

Vitamin C deficiency is called *scurvy*. In the past, many sailors suffered from it [\[R\]](#).

How it helps

Vitamin C is an antioxidant that is shown to improve sperm motility and count.

44



Dietary Zinc

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods high in zinc, such as beef, poultry, seafood (especially oysters), beans, nuts, and whole grains, into your daily diet. Aim for the recommended dietary allowance of zinc, which is 11 mg per day for adult men and 8 mg per day for adult women.

Description

Dietary zinc is essential for the body. It helps our immune system fight off bacteria and viruses, plays a role in healing wounds, and is essential for our sense of taste and smell. Without enough zinc, these systems may not work as effectively as they should.

How it helps

Zinc is vital for hormonal balance, sperm quality, and fertility.

45



Avoid Illicit Drugs

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Refrain from using any illegal substances, including but not limited to, narcotics, stimulants, hallucinogens, and cannabis where it's not legalized. This means not purchasing, possessing, or consuming these substances in any form or amount. Commit to this practice indefinitely for long-term health benefits.

Description

Avoiding the use of illicit drugs is essential for preserving physical and mental health, as these substances can lead to addiction, mental health disorders, and other physical health issues. Abstaining from their use supports a safer and healthier lifestyle.

Illicit drugs are highly addictive, illegal drugs. Examples include **marijuana, cocaine, meth, and MDMA (ecstasy)**. The term can also refer to a non-medical use of drugs that are legally available (e.g., medical marijuana in some countries and states) [\[R\]](#).

Illicit drug use can have a **devastating impact on all aspects of your health and wellbeing**. It can lead to [\[R\]](#):

- Dependence and addiction
- Injury and accidents
- Health and sleep problems
- Problems in family and social life

How it helps

Drugs like anabolic steroids and others can drastically reduce sperm count, so avoiding them can have a positive effect on sperm health.

46



Avoid Cannabis

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Stop any form of cannabis use, including smoking, vaping, edibles, and topical applications. If you currently use cannabis, it's recommended to cease usage immediately and seek support or counseling if necessary for cessation.

Description

Avoiding cannabis is advised in situations where its use is prohibited by law or poses health risks, particularly for individuals with a history of substance abuse or mental health conditions. Responsible use and adherence to local regulations are essential to minimize potential negative consequences.

[Cannabis](#) (marijuana) is a plant used for its medicinal and recreational properties. It contains substances called *cannabinoids*, such as [CBD](#) and THC [\[R\]](#).

Cannabis misuse can have long-term consequences, such as [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Lung damage
- Mental health problems
- Cognitive impairment

How it helps

Cannabis use has been linked to lower sperm count; avoiding it can remove this negative influence on sperm production.

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Zinc and Folate

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a zinc supplement of 15 mg per day and a folate supplement of 400-800 mcg per day with a glass of water, preferably with a meal to enhance absorption. Continue this regimen daily for at least three months to observe benefits.

Description

Zinc and folate are essential nutrients found in various foods, with zinc predominantly sourced from animal products and folate from leafy greens and legumes. Zinc plays a crucial role in immune function and wound healing, while folate is vital for cell division and the prevention of neural tube defects during pregnancy.

Zinc and [vitamin B9](#) (*folate*) are essential nutrients. Among other roles, they help make DNA and protect it from damage [\[R\]](#), [\[R\]](#).

Some of the best sources of zinc include **shellfish, pork, beef, and beans**. It is also available as a supplement [\[R\]](#).

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

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

How it helps

Zinc is essential for sperm formation and testosterone metabolism, and its combination with folate has been shown to improve sperm count and health.

48



Ginger

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 500 mg ginger supplement daily, preferably with a meal to enhance absorption and minimize potential stomach discomfort.

TYPICAL STARTING DOSE

500 mg

Description

Ginger is a versatile spice known for its potential anti-inflammatory and digestive benefits. It may help alleviate nausea, reduce muscle soreness, and support gastrointestinal comfort when consumed as part of a balanced diet.

[Ginger root](#) is a cooking spice and a traditional remedy. People mostly use it to relieve [\[R\]](#):

- Nausea
- Menstrual cramps
- Joint pain

How it helps

Ginger can increase testosterone levels, which plays a crucial role in the production of sperm, enhancing both the quantity and quality. This will aid in increasing the sperm count.

49



Fish

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate two servings of fish into your diet each week, focusing on oily fish like salmon, mackerel, or sardines for their high omega-3 fatty acid content. Each serving should be about 3.5 ounces cooked, or about ¾ cup of flaked fish.

Description

Fish, particularly fatty fish like salmon and mackerel, is an excellent source of omega-3 fatty acids, which support cardiovascular health, brain function, and inflammation management. Regular consumption of fish can promote heart health and overall well-being.

Fish is a great source of [omega-3s](#), protein, and other essential nutrients. Omega-3s from fish (EPA and DHA) are some of the healthiest fats we can eat. They help reduce inflammation and **protect the heart, brain, and eyes** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Fatty fish are rich in EPA and DHA. They include [\[R\]](#):

- Salmon
- Tuna
- Herring
- Sardines

For optimal protection, try to get at least **two servings of fatty fish per week**. Fish oil supplements are available for those who don’t eat fish regularly [\[R\]](#).

How it helps

Fatty fish like salmon and mackerel are rich in omega-3 fatty acids that enhance sperm quality.

50



Oysters

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume 3-5 medium-sized oysters, which are about 50-100 grams, two to three times a week. This ensures an adequate intake of essential nutrients like zinc without excessive heavy metal consumption.

Description

Common to coastal areas around the world, oysters are a mullusk that has been harvested for thousands of years. Oysters are a rich source of protein, vitamins (especially B12), zinc, iron, copper, and omega-3 fatty acids.

Oysters are an excellent source of iodine, iron and are loaded with other vitamins and minerals, especially copper and vitamin B12. A 3-ounce serving provides 93 mcg of iodine or 62%DV.

How it helps

Oysters are an excellent source of zinc, essential for sperm production and reproductive health.

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D-Aspartic Acid

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 2-3 grams of D-aspartic acid daily, preferably with breakfast to increase absorption. Continue for at least 12 weeks to assess its effects on testosterone levels and overall well-being.

TYPICAL STARTING DOSE

2 g

Description

D-aspartic acid is an amino acid that has gained attention for its potential to boost testosterone levels. It's sometimes used as a dietary supplement, although the scientific evidence on its efficacy is mixed, and it should be used with caution.

How it helps

D-Aspartic Acid is a type of amino acid that supports testosterone production, which is crucial for sperm creation. Regular use of this supplement can lead to an increase in sperm count and help improve fertility.

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Berries

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate a variety of berries such as strawberries, blueberries, raspberries, and blackberries into your daily diet. Aim for at least one cup of fresh or frozen berries every day, either as a snack, part of your breakfast (such as in oatmeal or yogurt), or as a dessert.

Description

Berries, such as strawberries, blueberries, and raspberries, are packed with antioxidants, vitamins, and fiber. Regular consumption of berries may support heart health, improve cognitive function, and contribute to overall well-being.

How it helps

Berries, such as blueberries and raspberries, are packed with antioxidants that can protect sperm from damage.

53



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 physical exercise can increase testosterone levels and improve fertility by boosting sperm quantity and quality.

Next Steps

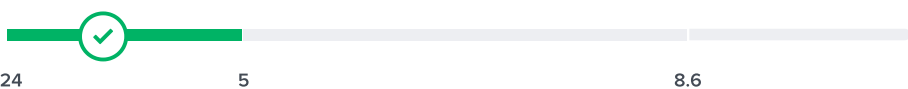
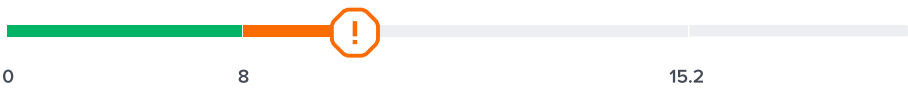
Remember, your genes only tell one important part of your health story!

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.

	FSH	2.46 mIU/mL		9 Nov 2025
	LH	2.73 mIU/mL		9 Nov 2025
	Zinc	17.12 umol/L		9 Nov 2025
	Prolactin	9.83 ng/mL		9 Nov 2025
	Estradiol	101.46 pg/mL		9 Nov 2025
	Testosterone, Total	1500 ng/dL		9 Nov 2025