

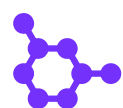
Estradiol

DNA Health Report

REPORT CATEGORIES —



REPRODUCTIVE
HEALTH



SEX HORMONES



SEXUAL HEALTH

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

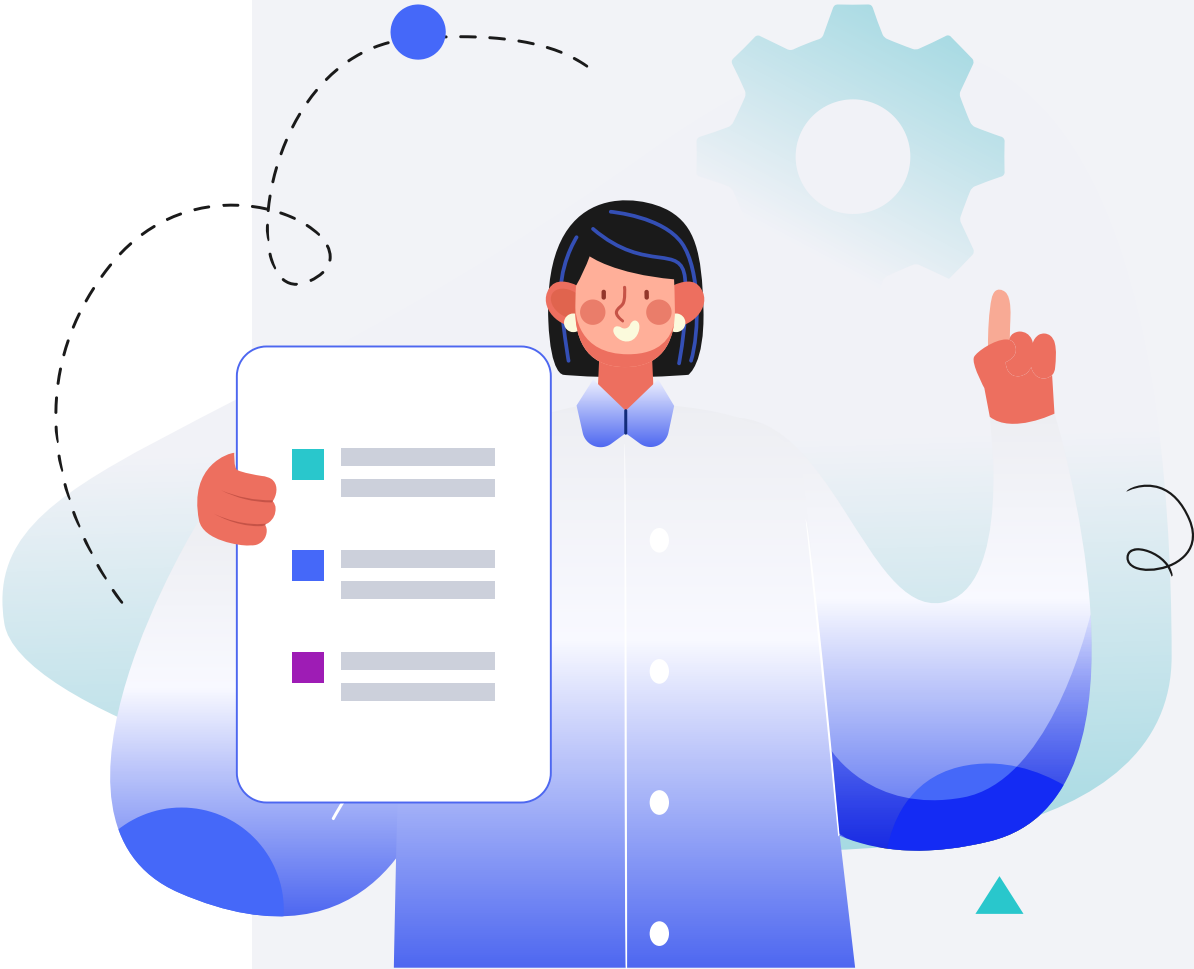
Male

HEIGHT

5ft 5" 165cm

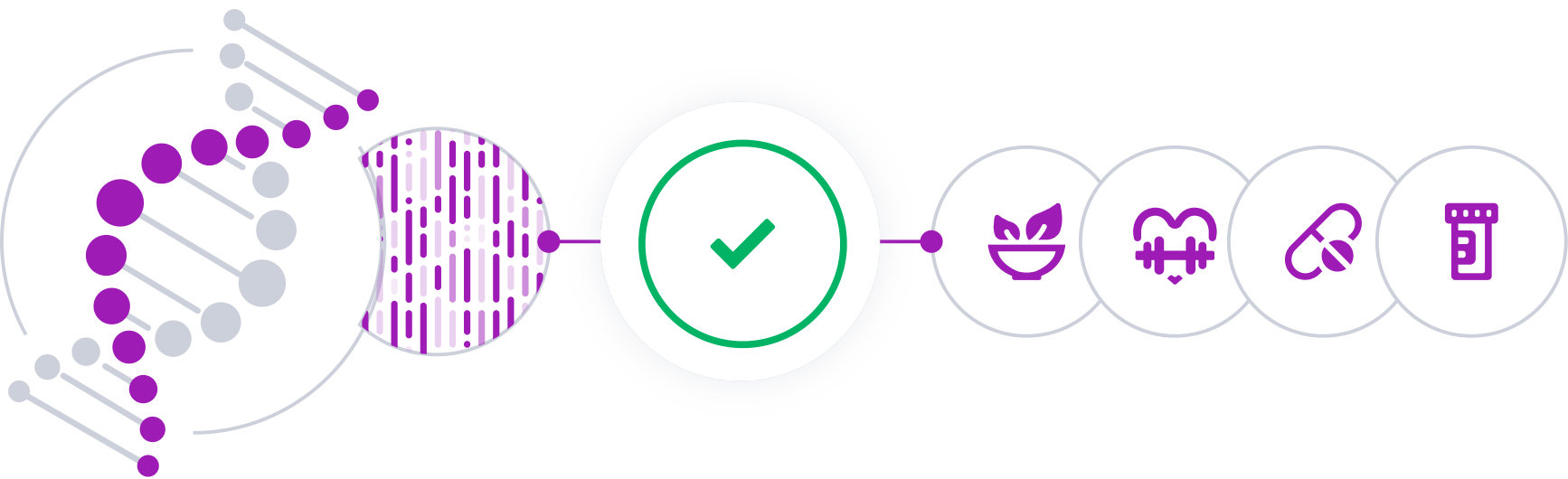
WEIGHT

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.

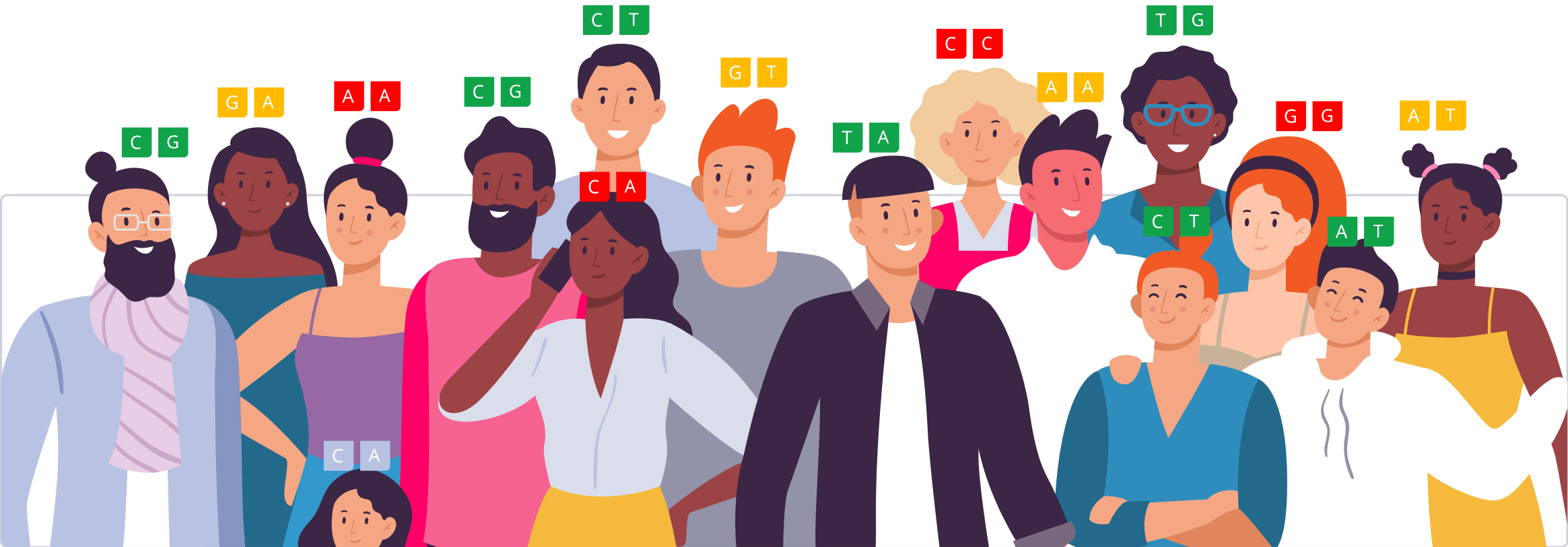


Similarly, our Trait Reports look at how your DNA influences your traits.



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

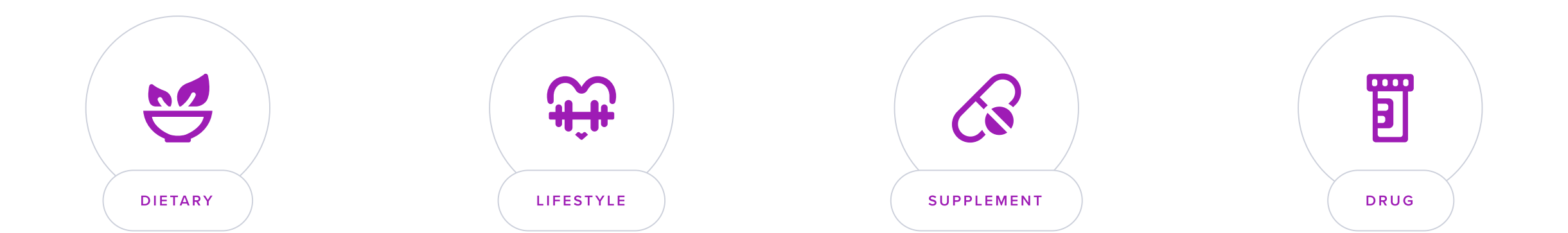
You have 2 risk alleles

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

Estradiol is a type of estrogen. Estrogens are the main female sex hormones that maintain sexual and reproductive health. Estradiol is needed for **breast development, menstruation, and pregnancy** [\[R\]](#), [\[R\]](#), [\[R\]](#).

Estradiol also has important non-reproductive roles. It affects [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Cholesterol and blood sugar levels
- Body weight
- Bone and muscle mass
- Collagen production and skin moisture
- Brain function

Ovaries make most of the estradiol in females, but some of it is also made in the adrenal glands and fat tissue. **Levels increase in puberty, fluctuate naturally during the menstrual cycle, and decline with menopause** [\[R\]](#), [\[R\]](#).

Genetics, Environment, and Estradiol

Estradiol is a type of estrogen. Estrogens are sex hormones that maintain sexual and reproductive health. In females estradiol is needed for breast development, menstruation, and pregnancy. Ovaries make most of the estradiol in women, but some of it is also made in the adrenal glands and fat tissue [R, R, R, R].

Your estradiol levels partially depend on your genetics, but factors other than genetics also influence your hormones [R].

The following lifestyle changes can help balance your estradiol [R]:

- Getting enough sleep
- Managing your stress
- Exercise
- Limiting alcohol
- Eating a diet low in sugar and processed foods, and high in healthy fats and fiber

Estradiol levels that are consistently low or consistently high can signal an underlying condition that may need medical attention. If you are concerned about your hormone levels, talk to your doctor.



Predisposed to higher estradiol levels based on 86 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
ESR1	rs728524	AA
MCM8	rs16991615	AG
ESR1	rs9340799	GA
ESR1	rs2234693	CT
ESR1	rs2077647	CT
UIMC1	rs2454949	AA
SYCP2L	rs72823349	TA
NSUN4	rs2145409	TC
PIWIL1	rs35997018	CT
DTNB	rs199630126	AA
RHNO1	rs28990703	AG
CYP19A1	rs727479	AA
HELB	rs75770066	AA
TNP1	rs13387042	GG
ESR2	rs1256049	CC
EIF4EBP1	rs28807105	AA
EHMT2	rs34929649	TT
SRD5A2	rs9282858	CC
SRD5A2	rs112881196	CC
SRD5A2	rs76712439	CC
SPAST	rs72796853	CC
XDH	rs113923480	GG
FKBP4	rs56196860	CC
NLRC4	rs72796891	AA
FREM3	rs115870916	CC
FBXL17	rs150638752	AA
DTNB	rs144450473	CC
SPPL2A	rs143588983	GG
TNFAIP8L3	rs142484019	GG
ACTR3B	rs146761942	AA
TNFAIP8L3	rs149463881	CC
AP4E1	rs142122955	AA

GENE	SNP	GENOTYPE
AP4E1	rs150387952	TT
FREM3	rs115271535	CC
TRIM4	rs80218044	GG
SPPL2A	rs76018581	GG
CYP19A1	rs11853261	GG
CYP19A1	rs535411395	TT
XDH	rs72790679	GG
AP4E1	rs189169125	GG
AP4E1	rs189302421	CC
ZKSCAN5	rs139380031	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	Indole-3-Carbinol	200 mg	
3	Avoid PAHs Exposure		
4	Black Cohosh	40 mg	
5	Avoid PBDE		
6	DHEA (Dehydroepiandrosterone)	25 mg	
7	Ashwagandha	120 mg	
8	Avoid Lead Exposure		
9	Avoid Mercury Exposure		
10	Chewing		
11	Avoid Cadmium Exposure		
12	Avoid Exposure to Heavy Metals		
13	Avoid Tin Exposure		
14	Avoid BPA (Bisphenol A) Exposure		
15	Avoid Dioxin		
16	DIM (Diindolylmethane)	100 mg	
17	Soy		
18	Avoid Endocrine Disruptors		
19	Sleep for 7+ Hours		
20	Legumes		
21	Flaxseed	2 tbsp	
22	Soy Isoflavones	40 mg	

1

Aerobic Exercise (Cardio)

IMPACT3 / 5

EVIDENCE3 / 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

Aerobic Exercise (3–5 hours/week) may lower estradiol levels, especially when performed at high intensity. Physical activity combined with weight loss may further reduce estradiol levels [\[R, R\]](#).

Exercise may lower estradiol levels by reducing fat mass, which is a source of estradiol [\[R\]](#).

2



Indole-3-Carbinol

IMPACT3 / 5

EVIDENCE2 / 5

How to implement

Take an indole-3-carbinol supplement with a glass of water, preferably with meals to enhance absorption. Dosages typically range from 200 to 400 mg per day, divided into two doses. Continue daily for as long as recommended by your healthcare provider, which can vary based on the specific condition being addressed.

TYPICAL STARTING DOSE

200 mg

Description

Indole-3-carbinol is a compound found in cruciferous vegetables that may support hormonal balance and has been studied for its potential to reduce the risk of certain cancers.

How it helps

In a placebo-controlled trial of 17 women, supplementation with I3C (400 mg/day) for 4 weeks increased the urinary 2-hydroxyestrone/16alpha-hydroxyestrone ratio by 66%. A supplement with I3C and green tea also increased this ratio (by 4.55) after 12 weeks of supplementation in a placebo-controlled trial of 148 premenopausal women [\[R\]](#), [\[R\]](#).

In 2 trials (one of them non-placebo-controlled) of 25 healthy women, supplementation with I3C (400 mg/day) for 2-3 months increased the ratio of urinary estrogens 2OHE1/E3 [\[R\]](#), [\[R\]](#).

In an uncontrolled trial of 17 women with lupus, supplementation with I3C (375 mg/day) for 1 week had no effects on the symptoms but increased the mean 2:16alpha hydroxyestrone ratio by 1.31 [\[R\]](#).

Indole-3-carbinol can promote a healthier balance of estrogen in your body by converting "bad" forms of estrogen into better forms that are less likely to cause harm.

3



Avoid PAHs Exposure

IMPACT2 / 5

EVIDENCE2 / 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 study of 967 male adolescents associated urinary 2-Hydroxynaphthalene, 1-Hydroxyphenanthrene, 2&3-Hydroxyphenanthrene with decreased estradiol levels and 2-Hydroxynaphthalene with decreased total testosterone [\[R\]](#).

A study of 648 premenopausal and 370 postmenopausal women associated exposure to PAH metabolites with decreased E2, TT, FAI, and TT/E2, and increased SHBG levels [\[R\]](#).

A study of 4,654 participants associated urinary 2-hydroxynaphthalene and 3-hydroxyfluorene with increased testosterone levels in men, while 1-hydroxyphenanthrene increased estradiol in women [\[R\]](#).

PAHs can disrupt your hormone levels, including those of estradiol.

4



Black Cohosh

IMPACT2 / 5

EVIDENCE2 / 5

How to implement

Take a black cohosh supplement of 20 to 40 mg twice daily for up to six months to manage menopause symptoms. Make sure to check the label for a product standardized to contain 2.5% triterpene glycosides.

TYPICAL STARTING DOSE

40 mg

Description

Black cohosh is an herbal remedy often used by some individuals to alleviate symptoms of menopause, such as hot flashes and mood swings.

How it helps

Supplementation with black cohosh increased estradiol levels in several trials on women with unexplained infertility or PCOS [\[R, R, R\]](#).

Black cohosh contains phytoestrogens that can mimic the activity of estrogen in the body, potentially influencing estrogen levels.

5



Avoid PBDE

IMPACT2 / 5

EVIDENCE1 / 5

How to implement

To avoid PBDEs, replace old furniture that might contain these chemicals, vacuum and dust your home regularly to reduce dust particles that might contain PBDEs, and use products labeled as PBDE-free. Ensure you check labels on electronics, furnishings, and textiles for mention of being PBDE-free.

Description

Polybrominated Diphenyl Ethers (PBDEs) are commonly found in flame retardants used in household items. These chemicals are linked to health issues like hormone disruption and neurodevelopmental problems. Opt for PBDE-free products, improve ventilation, and frequently clean to minimize dust, which can contain PBDE particles, promoting a healthier living environment.

How it helps

PBDEs (polybrominated diphenyl ethers) can mimic or interfere with hormones in your body like estradiol, thus disrupting hormone function. So, avoiding PBDEs risks of such hormonal disturbances are lessened, promoting healthier estradiol levels.

A [study of 544 adolescents](#) associated exposure to organophosphate esters (a class of PBDE) with **lower total testosterone and estradiol levels, and higher SHBG** [\[R\]](#).

6



DHEA (Dehydroepiandrosterone)

IMPACT

2 / 5

EVIDENCE

1 / 5

How to implement

Take 25-50 mg of DHEA orally with water daily, preferably in the morning to mimic the body's natural rhythm of DHEA production. It is advisable to start at the lower dose to assess tolerance and adjust as needed. Consult a healthcare provider for personalized advice and before starting a new supplement regimen.

TYPICAL STARTING DOSE
25 mg

Description

DHEA is a hormone produced by the adrenal glands and has been used as a dietary supplement for various purposes, including supporting hormonal balance and energy levels. It may have potential benefits for specific individuals, but its use should be supervised by a healthcare professional due to its hormonal nature.

DHEA is a steroid hormone produced primarily by the adrenal glands. It is also produced to a much lesser extent by the testes and ovaries and, possibly, the brain [R, R].

DHEA helps make the sex hormones [testosterone](#) and [estrogen](#). DHEA is important for [R, R, R, R]:

- Mood
- Immunity
- Muscle strength
- Bone health
- Skin health

DHEA is released in response to stress. In fact, one of DHEA's important roles is to protect against the adverse effects of prolonged and excessive exposure to cortisol, the stress hormone [R, R, R].

How it helps

A dose-response and meta-analysis of 21 clinical trials and 1223 women found that DHEA increased estradiol (by 7.02 pg/mL), especially in subjects aged ≥60 years old and in those receiving DHEA supplements for ≥26 weeks. Estradiol levels increased with DHEA dosages of 50 mg/day and when DHEA was prescribed to postmenopausal women [R].

DHEA can serve as a precursor to estradiol in the body.

Please note: DHEA has been banned by sport associations and anti-doping agencies. DHEA should not be used at high doses or long-term and is contraindicated in patients with hormone-responsive cancers. DHEA supplements should only be used with the prescription of a medical professional. Discuss risks and side effects with your doctor [R].

7



Ashwagandha

IMPACT

1 / 5

EVIDENCE

1 / 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

In a placebo-controlled trial of 91 perimenopausal women with climacteric symptoms, supplementation with ashwagandha (300 mg, 2x/day) for 8 weeks reduced psychological, somato-vegetative, and urogenital symptoms, increased estradiol, and lowered FSH and LH [\[R\]](#).

8



Avoid Lead Exposure

IMPACT

1 / 5

EVIDENCE

1 / 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

A study of 2728 adults associated exposure to heavy metals such as cadmium, tin, and lead with lower estradiol levels in women [\[R\]](#).

9

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

A study of 1355 women associated a doubling urinary mercury level with 2.2% lower estradiol [\[R\]](#).

10

Chewing

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate chewing thoroughly into your daily eating habits by ensuring each bite is chewed 20-30 times before swallowing. Practice this technique at every meal and with snacks to improve digestion and satiety.

Description

Chewing can help to reduce the tendency to overeat by keeping your mouth busy and providing a sense of fullness. It can also help to improve your metabolic rate and increase your energy levels. Additionally, chewing can help to improve your attention span and reduce stress levels.

How it helps

In a non-placebo-controlled trial of 177 participants, chewing gum increased testosterone and estradiol while decreasing IgA [\[R\]](#).

11



Avoid Cadmium Exposure

IMPACT

1 / 5

EVIDENCE

1 / 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 study of 2728 adults associated exposure to heavy metals such as cadmium, tin, and lead with lower estradiol levels in women [\[R\]](#).

12

Avoid Exposure to Heavy Metals

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid exposure to heavy metals, ensure you're not using cosmetic products with heavy metals, opt for organic foods to minimize pesticide exposure, and use filters for drinking water to remove possible contaminants. Check for lead-based paints in older homes and avoid cooking or storing food in uncoated metal containers. When possible, choose glass or BPA-free plastics instead.

Description

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 study of 2728 adults associated exposure to heavy metals such as cadmium, tin, and lead with lower estradiol levels in women [\[R\]](#).

13

Avoid Tin Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Minimize use of canned foods and avoid products with tin-based packaging. Check labels on personal care items to ensure they do not contain tin compounds. If you work in environments where tin exposure is possible, use protective clothing and ensure proper ventilation.

Description

Exposure to tin, a common metal, can be harmful to your health. It can be found in numerous everyday items, so try to limit your exposure. By doing so, you can reduce the risk of health issues like stomach aches, skin irritation, and more serious conditions in the long term.

How it helps

A study of 2728 adults associated exposure to heavy metals such as cadmium, tin, and lead with lower estradiol levels in women [\[R\]](#).

14

Avoid BPA (Bisphenol A) Exposure

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

To avoid BPA exposure, choose BPA-free products, particularly when selecting food containers, water bottles, and baby bottles. Prefer glass, porcelain, or stainless steel containers, especially for hot food or liquids. Reduce use of canned foods as they may be lined with BPA and avoid handling thermal paper receipts, as they can contain BPA. When possible, select fresh or frozen foods over canned goods.

Description

Avoiding BPA (Bisphenol A) exposure involves minimizing contact with products or containers containing this chemical, which is commonly found in plastics and can potentially disrupt hormone regulation.

BPA (bisphenol A) is a chemical used to make certain plastics and resins. BPA-containing plastics are often used in containers that store food and beverages. Plastics marked with **recycling code 3 or 7** may contain BPA [\[R\]](#).

BPA is a well-known hormone disruptor. Research has linked BPA exposure to diabetes, heart disease, altered behavior, and more [\[R\]](#).

How it helps

In an IVF study of 44 women, higher BPA levels were linked to lower estrogen levels but showed no effect on the number of oocytes retrieved [\[R\]](#).

15

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 estradiol and increases FSH [\[R\]](#).

16



DIM (Diindolylmethane)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a DIM (diindolylmethane) supplement daily with water during a meal to aid absorption. Dosages typically range from 100 to 200 mg per day, but always start with the lower dose to assess your body's response before increasing.

TYPICAL STARTING DOSE

100 mg

Description

DIM is a natural compound found in cruciferous vegetables like broccoli and cauliflower. It is known for its potential to support hormonal balance and may be used in supplements for its estrogen-regulating properties.

How it helps

DIM is a compound found in cruciferous vegetables that may help to balance estrogen metabolism and maintain healthy estrogen levels.

17



Soy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate soy-based products such as tofu, soy milk, and edamame into your daily diet. Aim for at least one serving per day, equivalent to about a cup of soy milk, a half-cup of cooked soybeans, or a 3-ounce piece of tofu.

Description

Soy is a legume native to East Asia, and its health benefits include being a source of plant-based protein, fiber, and various vitamins and minerals. It is known for its potential to support heart health, reduce cholesterol levels, and provide essential nutrients in vegetarian and vegan diets.

Soy is a common food in many cuisines around the world, especially Asian cuisines [\[R\]](#).

It’s a great source of [\[R\]](#), [\[R\]](#):

- Plant-based protein
- Fiber
- Omega-3 fats
- Antioxidants (isoflavones)

Soy-based foods include [\[R\]](#):

- Soy beverages
- Tofu
- Tempeh
- Edamame
- Miso
- Natto

Soy protein and soy isoflavones are also available as supplements.

How it helps

Soybeans and soy products like tofu and soy milk contain isoflavones, which are phytoestrogens that can have weak estrogenic or anti-estrogenic effects.

18



Avoid Endocrine Disruptors

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Minimize exposure to endocrine disruptors by opting for organic foods to reduce pesticide intake, using glass or stainless steel instead of plastic containers for food and beverages, avoiding cosmetics and personal care products with parabens or phthalates, and regularly vacuuming and dusting your home to reduce contact with flame retardants found in household dust.

Description

Avoiding exposure to endocrine disruptors, such as certain chemicals found in plastics and pesticides, is crucial for maintaining hormonal balance and reducing the risk of hormone-related health problems.

Endocrine disruptors are chemicals that interfere with the body’s hormone (endocrine) system by [\[R\]](#), [\[R\]](#):

- Blocking the function or activity of hormones
- Mimicking the function of hormones

Based on limited studies, long-term exposure to these chemicals can have negative effects on health [\[R\]](#), [\[R\]](#).

Endocrine disruptors can be found in cosmetics, food products, pesticides, and other common household items [\[R\]](#).

How it helps

Endocrine disruptors can interfere with hormone production, release, and action within the body, which could influence estradiol levels and functions.

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Sleep for 7+ Hours

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

Description

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

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

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

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

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

How it helps

Good quality sleep is important for overall hormone regulation, including the synthesis and metabolism of estradiol.

20



Legumes

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate a serving of legumes, such as beans, lentils, chickpeas, or peas, into your diet at least four times a week. A serving size is approximately half a cup cooked. Ensure to prepare them properly by soaking and rinsing beans, if applicable, to reduce anti-nutrients and improve digestibility.

Description

Legumes, such as beans, lentils, and chickpeas, are excellent sources of plant-based protein, fiber, and various vitamins and minerals. Including legumes in your diet can promote satiety and support digestive health.

Legumes are plants from the *Fabaceae* family. Their edible seeds are called **pulses**. Legumes are important food staples and sources of carbohydrates, fiber, protein, iron, and other key nutrients.

Common legumes include:

- Peanuts
- Beans
- Chickpeas
- Peas
- Lentils

How it helps

Legumes like lentils and chickpeas contain phytoestrogens that may influence estrogen activity in the body.

How to implement

TYPICAL STARTING DOSE

2 tbsp

Description

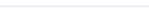
[Flaxseed](#) is a common ingredient in bakery products. Some people also use it as a health food to support digestion [R].

- Vitamins and minerals
- Protein
- Fiber
- Omega-3 fatty acids ([ALA](#))

How it helps

Flaxseeds contain lignans which have estrogenic properties and may help in managing estrogen balance in the body.

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Soy Isoflavones

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a soy isoflavone supplement containing 40 to 80 milligrams daily, ideally with food to improve absorption. This dosage can be continued on a daily basis for several months, but it's recommended to reevaluate its effectiveness and any potential side effects with a healthcare provider periodically.

TYPICAL STARTING DOSE

40 mg

Description

Soy isoflavones are natural compounds found in soybeans and soy products. They are phytoestrogens, which means they can mimic the effects of estrogen in the body and are associated with potential health benefits like menopausal symptom relief and improved heart health.

Soy is a common food in many cuisines around the world, especially Asian cuisines [R].

It's a great source of [R, R]:

- Plant-based protein
- Fiber
- Omega-3 fats
- Antioxidants (isoflavones)

Soy-based foods include [\[R\]](#):

- Tofu
- Tempeh
- Edamame
- Miso
- Natto

Soy protein and soy isoflavones are also available as supplements.

How it helps

Soy isoflavones are considered phytoestrogens which can help support estrogen levels through their estrogen-like activity.

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

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

