

Acute Kidney Injury

DNA Health Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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DISCLAIMER

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

Personal information

NAME

Sample Client

SEX AT BIRTH

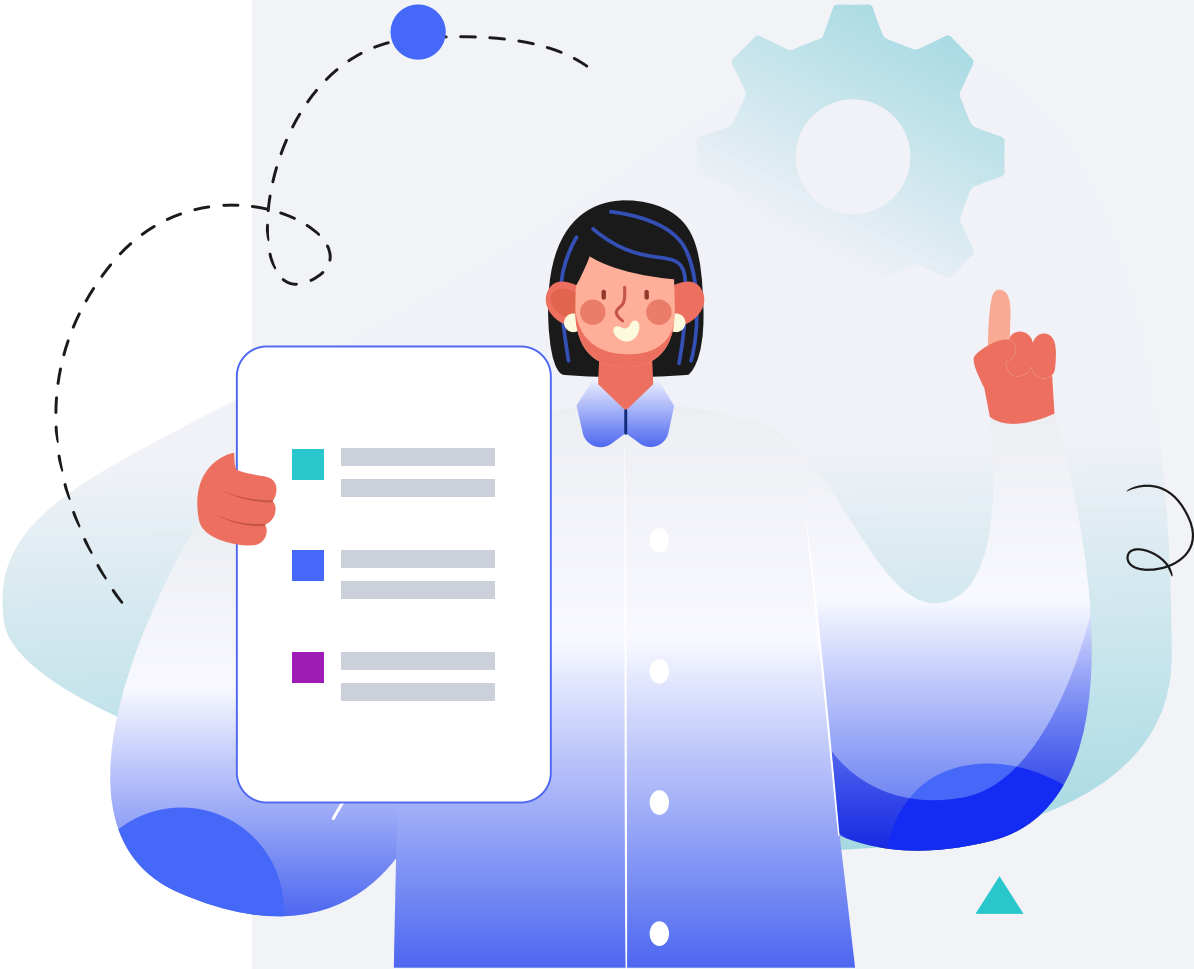
Male

HEIGHT

5ft 5" 165cm

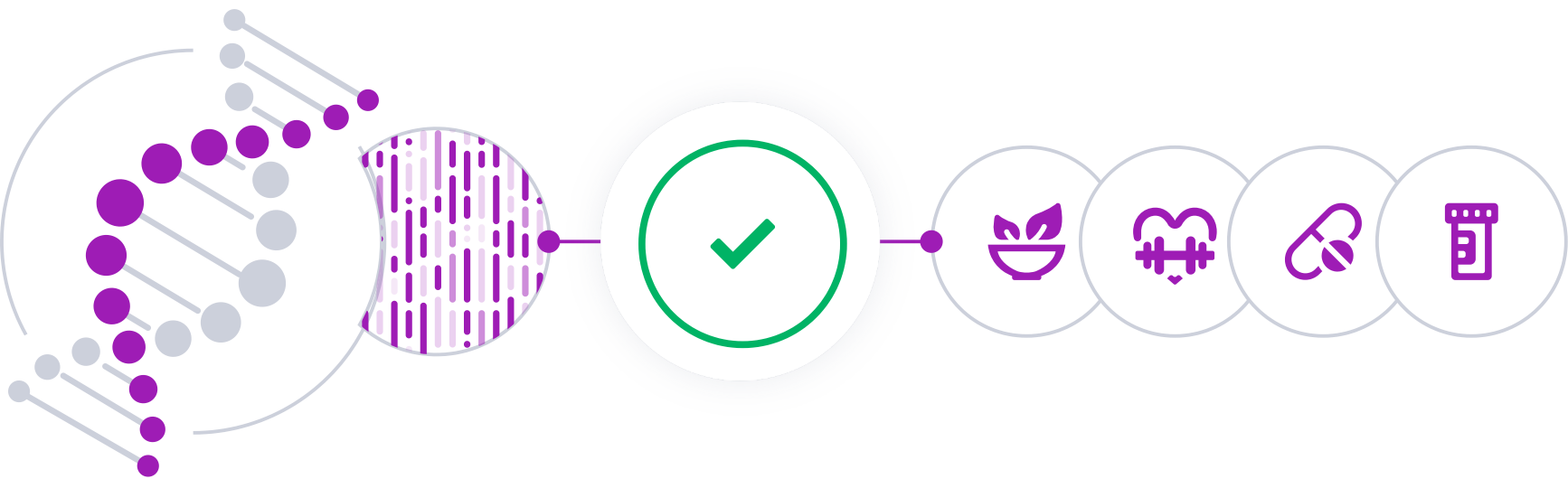
WEIGHT

137lb 62kg



How this works

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

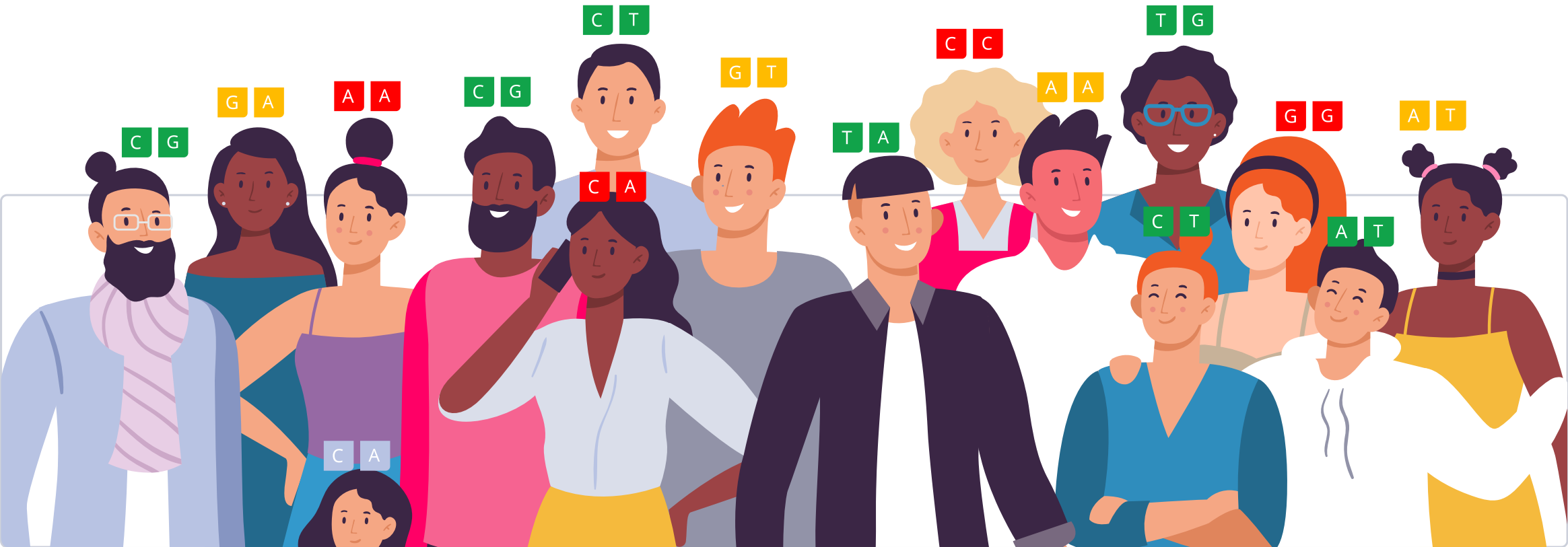


Similarly, our Trait Reports look at how your DNA influences your traits.



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

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



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

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

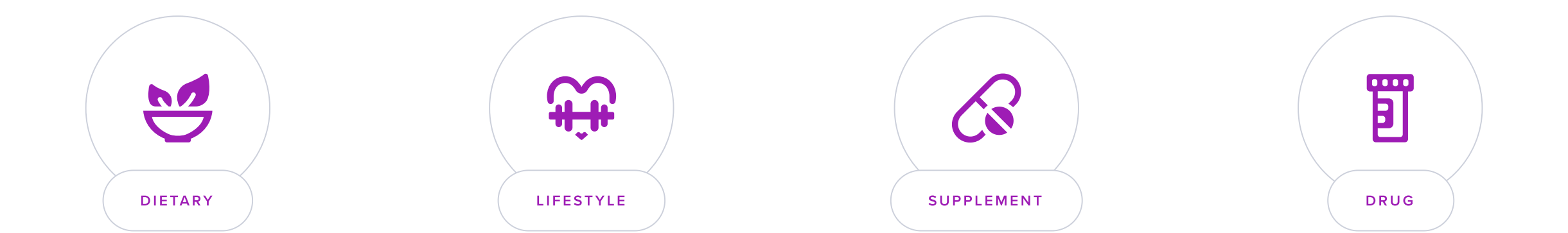
You have 2 risk alleles

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

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

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

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



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

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



Impact

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

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

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

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

Recommendation Evidence

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

Genotype-specific Evidence

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

Some things to keep in mind:

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

Introduction

Acute kidney injury (AKI), also known as acute renal failure, is a serious condition characterized by a sudden loss of kidney function over a period of hours to days. This critical condition leads to an accumulation of waste products in the blood, an imbalance of body fluids and electrolytes, and potential disturbances in the acid-base balance.

AKI can arise from various factors, ranging from severe dehydration to significant blood loss causing a drop in blood pressure or direct kidney injury from toxins or medications.

Complications and Treatment

The impact of AKI goes beyond the kidneys, as it can cause serious complications, including fluid buildup leading to swelling in limbs and shortness of breath, heart rhythm problems, a weakened immune response making a person more susceptible to infections, and at its most severe, an increased risk of death. Recovery from AKI varies depending on the severity and the patient's general health; some may fully recuperate normal kidney function, while others may sustain permanent kidney damage and progress to chronic kidney disease.

Prompt diagnosis and treatment are crucial to manage the symptoms and prevent long-term complications.



MORE LIKELY

More likely to have acute kidney injury based on 1,141,031 genetic variants we looked at



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	Pterostilbene	2	Magnesium Sulfate200 mg
3	Limit Protein Intake	4	Anti-Inflammatory Diet
5	Dietary Omega-3 Fatty Acids	6	Limit Meat Intake
7	Avoid Carbonated Beverages	8	Avoid Processed High Phosphate Foods
9	Limit Salt Intake	10	Acetyl-L-Carnitine500 mg
11	Selenium Supplements50 mcg	12	N-acetylcysteine (NAC)1200 mg
13	Reduce Oxalate Intake	14	Stress Management Therapy1 hour
15	Avoid Refined Sugar		

1



Pterostilbene

IMPACT

1 / 5

EVIDENCE

1 / 5

Description

Pterostilbene is a polyphenol found in red wine, blueberries, and grapes. It has been shown to have antioxidant and anti-inflammatory properties, and may help to protect against cancer, heart disease, and Alzheimer's disease. It is also being studied for its potential to treat other conditions, such as diabetes and obesity.

How it helps

In a randomized, double-blind trial, escalating doses of NRPT (nicotinamide riboside and pterostilbene) increased blood NAD+ levels in hospitalized acute kidney injury patients, showing potential therapeutic benefits. NRPT was safe and well-tolerated, with minor side effects reported in some cases. Further research is needed to confirm its effectiveness [\[R\]](#).

2



Magnesium Sulfate

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 200-400 mg of magnesium sulfate orally with water once daily, ideally in the evening or as directed by your healthcare provider. Continue this supplementation as recommended by your healthcare provider, often for several weeks to months for optimal benefits.

TYPICAL STARTING DOSE

200 mg

Description

Magnesium sulfate, also known as Epsom salt, is used in baths and topical applications to soothe sore muscles, alleviate stress, and promote relaxation. It is believed to be absorbed through the skin, providing a calming effect on muscles and the nervous system.

How it helps

Intravenous magnesium sulfate (3 mg/dL) reduced the incidence of acute kidney injury in a placebo-controlled trial of 72 patients receiving vancomycin and piperacillin-tazobactam [\[R\]](#).

3



Limit Protein Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Limit your daily protein intake to 0.8 grams per kilogram of your body weight. For example, if you weigh 70 kilograms (about 154 pounds), aim to consume no more than 56 grams of protein per day. Adjust this goal based on your activity level and health status, reducing intake further if advised by a healthcare professional.

Description

Proteins, fats, and carbs are macronutrients. You need these nutrients in large (‘macro’) amounts. They provide your body with the energy it needs to function properly [\[R\]](#).

You should choose high-quality foods that give you the “best” version of each macronutrient. For example, too much protein from certain animal sources may increase the risk of bone, kidney, and metabolic issues in some people [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

High protein intake can make the kidneys work harder and produce more waste. Limiting protein can reduce this strain and help the kidneys recover.

4



Anti-Inflammatory Diet

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Incorporate foods rich in omega-3 fatty acids, such as salmon and flaxseeds, fruits, vegetables, nuts, and whole grains into your daily meals. Avoid processed foods, red meats, and refined sugars. Aim for a balanced diet consisting mostly of plant-based foods and lean protein sources, adjusting portions sizes to meet your individual nutritional needs and health goals.

Description

An anti-inflammatory diet focuses on reducing inflammation in the body by emphasizing foods rich in anti-inflammatory compounds, such as fruits, vegetables, fatty fish, nuts, and seeds, while minimizing processed foods and those high in added sugars and trans fats.

Anti-inflammatory diets use healthy foods to reduce inflammation. These diets are generally high in [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Colorful fruits and vegetables
- Nuts and seeds
- Fish
- Olive oil
- Tea

They also tend to restrict [\[R\]](#), [\[R\]](#):

- Processed food
- Sugar and refined carbs
- Red meat

The [Mediterranean diet](#) and the DASH diet are good examples of anti-inflammatory diets [\[R\]](#), [\[R\]](#).

How it helps

An anti-inflammatory diet can help reduce inflammation throughout the body, which can positively impact kidney health by minimizing additional stress and damage.

5



Dietary Omega-3 Fatty Acids

IMPACT

0 / 5

EVIDENCE

0 / 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

Omega-3 fatty acids, found in foods like fish, have anti-inflammatory properties that may help protect the kidneys during acute injury. They can reduce inflammation and oxidative stress, potentially improving kidney function and outcomes in patients with acute kidney injury.

6



Limit Meat Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Substitute red and processed meats with plant-based proteins, such as beans, lentils, and tofu, for at least two meals per week. Gradually increase the number of meat-free meals by incorporating more fruits, vegetables, and whole grains into your diet daily.

Description

Limiting meat intake involves consuming fewer animal-based products, often as part of a plant-based diet. This dietary choice can provide health benefits such as lower cholesterol levels, reduced risk of certain chronic diseases, and a decreased environmental footprint.

Proteins, fats, and carbs are macronutrients. You need these nutrients in large (‘macro’) amounts. They provide your body with the energy it needs to function properly [\[R\]](#).

You should choose high-quality foods that give you the “best” version of each macronutrient. For example, too much saturated fat and protein from certain animal sources may increase the risk of heart disease and infertility [\[R, R, R\]](#).

Consider replacing red meat with other high-protein foods, such as [\[R, R\]](#):

- Eggs
- Fish
- Soy
- Beans

How it helps

Reducing meat intake can lower the load on kidneys as high protein intake can create more waste products that kidneys need to filter, helping preserve kidney function.

7



Avoid Carbonated Beverages

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Stop consuming drinks like soda, sparkling water, and other carbonated beverages. If you're used to drinking these regularly, gradually reduce your intake by replacing one carbonated drink with a non-carbonated alternative, such as still water or herbal tea, each day until you no longer consume them.

Description

Avoiding carbonated beverages, particularly those high in sugar or artificial additives, can support dental health by reducing the risk of tooth decay and enamel erosion, and avoid potentially irritating the bladder.

How it helps

Carbonated beverages can cause dehydration and contain sugars and additives that may worsen kidney function. Avoiding these drinks helps maintain better kidney health.

8



Avoid Processed High Phosphate Foods

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

To follow this recommendation, remove or significantly reduce processed foods such as sodas, packaged snacks, processed meats, and canned foods from your daily diet. Instead, opt for fresh fruits, vegetables, whole grains, and lean proteins. It's helpful to read nutrition labels, aiming to keep your daily phosphate intake below 700 mg if possible.

Description

Processed foods often have high levels of phosphate. These include fast foods and soda. Extra phosphate can make bones brittle and damage your blood vessels over time. So, it's healthier to choose fresh foods over processed ones.

How it helps

Processed foods often contain high levels of phosphate additives, which can strain the kidneys. For patients with acute kidney injury, whose kidneys are already compromised, avoiding these foods can reduce the burden on the kidneys, helping to manage phosphate levels more effectively and aid in recovery.

9



Limit Salt Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Reduce your daily salt intake to less than 2,300 milligrams (mg), equivalent to about one teaspoon of table salt. This includes all salt consumed, whether added during cooking, at the table, or present in processed and ready-to-eat foods.

Description

Limiting salt intake involves lowering the amount of sodium in the diet, which can help lower blood pressure and reduce the risk of heart disease. It often involves avoiding processed and other high-sodium foods such as cured meats, soups and sauces, and various pickled foods.

Your body needs a certain amount of sodium to function. For example, it helps support your blood pressure. This sodium usually comes from [salt](#). However, eating too much salt is linked to an increased risk of stroke and heart disease [\[R\]](#), [\[R\]](#).

Foods higher in salt include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Prepared soups, broths, gravies, and sauces
- Fermented or pickled foods (such as pickles, soy sauce, olives, and [capers](#))
- Cured meats and sausages (such as bacon, salt pork, and salami)
- Cheese (such as Roquefort and Parmesan)

Try to limit your daily intake to 1 teaspoon of salt (2,400 mg of sodium) [\[R\]](#).

How it helps

Consuming too much salt can increase blood pressure and cause fluid retention, putting extra strain on kidneys that are already injured. By limiting salt intake, patients with acute kidney injury can help reduce the workload on their kidneys, potentially improving their condition, and managing symptoms like swelling.

10



Acetyl-L-Carnitine

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 500-1,000 mg of Acetyl-L-Carnitine per day, split into 2 or 3 doses, with or without food. Joe prefers taking 500 mg in the morning. It can be taken indefinitely for chronic conditions or for a period of several months for acute concerns.

TYPICAL STARTING DOSE

500 mg

Description

[Carnitine](#) is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine. Acetyl-L-carnitine may help with nerve damage and mood problems.

[Carnitine](#) is a protein building block (amino acid). It comes in many forms, such as acetyl-L-carnitine [\[R\]](#), [\[R\]](#), [\[R\]](#).

[Acetyl-L-carnitine](#) may help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Nerve damage
- Mood problems
- Cognitive decline

Doctors are also studying its potential effect on drug addiction [\[R\]](#).

How it helps

Acetyl-L-Carnitine has been shown to have a protective effect on the kidneys after acute kidney injury. This supplement supports energy production in cells and can help reduce oxidative stress and inflammation, aiding in quicker recovery of kidney function.

11



Selenium Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

50 mcg

Description

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

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

- Reproduction
- Thyroid function
- DNA production
- Immune response

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

How it helps

Selenium is a powerful antioxidant that can help reduce oxidative stress, which is often associated with acute kidney injury. By reducing the levels of oxidative stress, selenium supplements may help protect the kidneys from further damage during acute phases of injury.

12



N-acetylcysteine (NAC)

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

1200 mg

Description

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

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

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

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

How it helps

NAC acts as an antioxidant and can help protect the kidneys from damage due to reduced blood flow or toxins. By boosting levels of glutathione, a key antioxidant in the body, NAC supports the kidneys' ability to filter waste products from the blood more effectively during and after acute injury.

13



Reduce Oxalate Intake

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Avoid high-oxalate foods such as spinach, beets, potatoes, and nuts. Instead, choose low-oxalate options like bananas, cabbage, and cucumbers. Aim to keep your daily oxalate intake under 100mg.

Description

Reducing oxalate intake means consuming foods and beverages with lower oxalate content, which can help prevent kidney stone formation and support kidney health. Oxalates are naturally occurring compounds found in various foods like spinach, chocolate, and nuts, and managing their intake is important for those prone to kidney stone formation.

Oxalate (*oxalic acid*) is a natural substance found in many foods, such as [R](#), [R](#), [R](#):

- **Spinach**
- Tea
- Rhubarb
- Chocolate
- Beets
- Nuts

Adults typically get 150-250 mg of oxalate every day. A high intake of oxalate may reduce calcium absorption and increase the risk of kidney stones [R](#), [R](#), [R](#).

How it helps

Reducing oxalate intake is recommended for people with acute kidney injury as oxalates can accumulate in the kidneys, potentially worsening kidney function. A diet lower in oxalates can help reduce the risk of further kidney damage by decreasing the oxalate load the kidneys need to process.

14



Stress Management Therapy

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

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

TYPICAL STARTING DOSE

1 hour

Description

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

How it helps

Stress management can help reduce the harmful effects of stress on your body, including reducing inflammation and blood pressure, which can benefit kidney function.

15



Avoid Refined Sugar

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Eliminate foods and beverages high in refined sugars, such as sodas, candies, pastries, and white bread, from your diet. Replace them with natural sugars found in fruits and whole grains. Implement this change immediately and maintain it indefinitely for long-term health benefits.

Description

Reducing the consumption of refined sugar and high-sugar foods can help prevent dental problems, manage blood sugar levels, and support weight management.

How it helps

High sugar intake can increase inflammation and oxidative stress, potentially worsening kidney function. Avoiding refined sugar helps reduce these negative effects, providing a healthier environment for kidney recovery.

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.

	Urea	30.5 mg/dL		9 Nov 2025
	Cystatin C	0.57 mg/L		9 Nov 2025
	BUN/Creatinine Ratio	13 x100%		9 Nov 2025
	Creatinine	1.08 mg/dL		9 Nov 2025
	Albumin/Creatinine Ratio, Random Urine	37 mg/g crt		9 Nov 2025
	BUN	14 mg/dL		9 Nov 2025