

Diabetic Nephropathy

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

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DISCLAIMER

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

Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg



How this works

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



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



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

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



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

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

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



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

You have 2 risk alleles

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

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

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

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



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

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



Impact

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

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

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

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

Recommendation Evidence

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

Genotype-specific Evidence

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

Some things to keep in mind:

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

Introduction

Diabetic nephropathy is a type of kidney damage that occurs in people with diabetes. It is caused by long-term, poorly controlled blood sugar levels, which can harm the kidneys’ filtering system. Over time, this leads to the kidneys' inability to remove waste and excess fluid from the blood, eventually resulting in kidney failure.

Diabetic nephropathy progresses through five stages, starting with hyperfiltration (increased filtration) and ending with kidney failure. Early detection is crucial to slow the progression of the disease.

- Stage 1: Hyperfiltration - increased glomerular filtration rate (GFR).
- Stage 2: Microalbuminuria - small amounts of albumin (protein) in the urine.
- Stage 3: Macroalbuminuria - larger amounts of albumin in the urine, with decreasing GFR.
- Stage 4: Kidney damage worsens, and GFR declines significantly.
- Stage 5: End-stage renal disease (ESRD), requiring dialysis or kidney transplantation.

In the early stages, diabetic nephropathy may not cause noticeable symptoms. As the condition progresses, symptoms can include:

- Swelling in the hands, feet, or face (due to fluid retention)
- Fatigue
- Nausea or vomiting
- Decreased appetite
- Difficulty concentrating
- Protein in the urine (detected by a urine test)
- High blood pressure
- Foamy urine

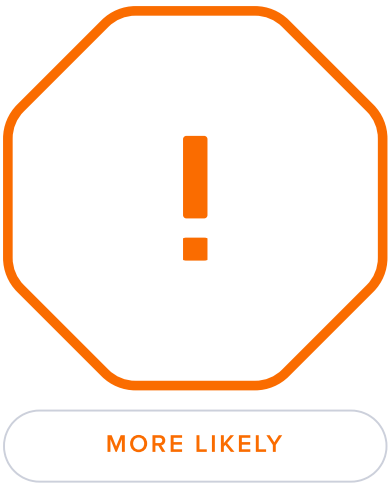
Risk Factors and Treatment

Factors linked to an increased risk of diabetic nephropathy include:

- Poorly controlled blood sugar levels
- High blood pressure
- Long duration of diabetes
- Smoking
- Obesity
- Family history of kidney disease
- High cholesterol levels

Managing diabetic nephropathy involves controlling blood sugar and blood pressure, alongside lifestyle changes. Common treatments include:

- Medications: ACE inhibitors or ARBs to control blood pressure, blood sugar-lowering drugs, and statins for cholesterol management.
- Dietary changes: Low-protein and low-sodium diets to reduce kidney strain.
- Lifestyle changes: Quitting smoking, maintaining a healthy weight, and regular exercise.
- Dialysis or kidney transplant: Required in advanced stages (Stage 5) when kidney function severely declines.



More likely to have diabetic nephropathy based on 28,985 genetic variants we looked at

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
/	rs7975752	AG
NEDD9	rs6910061	AT
XRCC2	rs10952362	TC
APOL1	rs136161	GC
/	rs13259109	CG
KRT6B	rs425827	TT
DGKB	rs12531478	GG
BTBD11	rs10778560	AA
/	rs1424609	TC
CNTNAP2	rs731565	GG
RYR3	rs2596230	TC
/	rs4849965	AA
NAV3	rs1677894	TT
KCNH7	rs4667466	CC
NAV3	rs11107616	TT
DEFA5	rs2077212	CC
ANXA11	rs1298908	TT
HNF4G	rs17373728	TT
TXN2	rs5750250	AA
ITPR1	rs304029	AA
TNFRSF19	rs9510795	GG
B4GALT1	rs4879670	TC

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	Okra	2	Avoid Organochlorine Pesticide Exposure
3	Resveratrol150 mg	4	Avoid Potassium Supplements
5	Low-Carbohydrate Diet	6	Avoid High-Glycemic Index Foods
7	Avoid Low-Fat High-Carb Diets	8	Metformin
9	Try low sodium diet	10	Bacillus Coagulans
11	Avoid Refined Sugar	12	Quercetin250 mg
13	Bitter Melon	14	Avoid Sugary Foods & Drinks

1



Okra

IMPACT

2 / 5

EVIDENCE

2 / 5

How to implement

Take okra supplements in the form of capsules or powder. If using capsules, consume 1-2 capsules daily with water, preferably with a meal. If using powder, mix one teaspoon into a glass of water or into a smoothie once daily. Continue this routine for at least 8-10 weeks to observe potential health benefits.

Description

Okra is a flowering plant of the mallow family, rich in vitamins, minerals, and fiber, offering potential benefits for digestive health, blood sugar control, and overall nutrition.

How it helps

Flos A. manihot significantly reduces proteinuria and serum creatinine in type 2 diabetic nephropathy without serious adverse effects, suggesting its potential as an adjunctive therapy. More high-quality RCTs are needed [R].

In a multicenter trial in China, huangkui capsule (okra extract) alone and combined with irbesartan significantly reduced albuminuria and proteinuria in diabetic kidney disease patients over 24 weeks, without affecting other clinical parameters [R].

2



Avoid Organochlorine Pesticide Exposure

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Minimize exposure by choosing organic fruits and vegetables, thoroughly washing produce before consumption, and avoiding areas where organochlorine pesticides are applied. Consider using air purifiers in homes close to agricultural areas to reduce indoor pesticide levels.

Description

Reducing organochlorine pesticide exposure involves minimizing contact with pesticides like DDT, which can accumulate in the body and potentially lead to adverse health effects, including disruption of hormonal functions and carcinogenicity.

How it helps

This research found that the pesticides p,p'-DDT and heptachlor epoxide were significantly associated with diabetes and nephropathy. Elevated levels of both increased the odds of diabetic nephropathy. Organochlorine pesticides may affect hormone pathways [R].

This study analyzed NHANES 1999-2004 data on Mexican American teens. It focused on DDT exposure and diabetes in those born in Mexico. Results showed strong associations with diabetes and nephropathy in this group, differing from prior research on the general US population [R].

3



Resveratrol

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take 150-500 mg of resveratrol as a supplement daily, preferably with meals to enhance absorption. This dosage range is based on studies for various health benefits, and it's advised to not exceed 500 mg per day without medical supervision.

TYPICAL STARTING DOSE

150 mg

Description

Resveratrol is a natural compound found in red grapes, red wine, and some berries. It is known for its potential antioxidant properties and its role in promoting heart health.

[Resveratrol](#) is an antioxidant found mainly in [\[R\]](#):

- Berries
- Red grapes
- Red wine
- Peanuts

It’s purported to have anti-inflammatory and antioxidant effects [\[R, R, R\]](#).

How it helps

In a placebo-controlled trial of 60 patients with type 2 diabetes, supplementation with resveratrol (500 mg/day) for 90 days as an add-on to losartan decreased the urine albumin/creatinine ratio and increased antioxidant enzymes [\[R\]](#).

4



Avoid Potassium Supplements

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To manage potassium levels, focus on a balanced diet and consult with a healthcare provider before considering any supplements. Avoid potassium supplements unless specifically prescribed, and regularly monitor your potassium levels through blood tests if advised by your doctor. It's important to be aware of the potassium content in foods and medications, especially if you are at risk for hyperkalemia.

Description

Avoiding potassium supplements is recommended for individuals with certain health conditions, such as kidney disease, where the body's ability to regulate potassium levels is impaired. High potassium levels (hyperkalemia) can lead to serious health issues, including heart problems. Potassium is found in many foods, so it's important to manage intake through diet under medical supervision, especially if you have conditions that affect potassium metabolism.

How it helps

Avoiding potassium supplements in patients with diabetic nephropathy is crucial as diminished kidney function can lead to potassium accumulation, increasing the risk of hyperkalemia, which can cause serious cardiac complications.

5



Low-Carbohydrate Diet

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Limit your daily intake of carbohydrates to less than 26% of your total daily calories. For a standard 2000-calorie diet, this means consuming no more than 130 grams of carbohydrates per day. Focus on including non-starchy vegetables, lean proteins, and healthy fats in your meals while minimizing the intake of sugars, bread, pasta, and other high-carb foods.

Description

Low-carbohydrate diets can promote weight loss, improve blood sugar control, and support heart health. They may also be beneficial for individuals with certain medical conditions, such as epilepsy or metabolic syndrome.

How it helps

A low-carbohydrate diet helps manage diabetic nephropathy by stabilizing blood sugar levels, thereby reducing the risk of kidney damage associated with fluctuating glucose. This dietary approach can also aid in weight management and decrease cardiovascular risks, further supporting renal health.

6



Avoid High-Glycemic Index Foods

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Substitute high glycemic foods, typically those that are processed, sugary, and low in fiber, with lower glycemic options like most fruits, vegetables, beans, and whole grains. This means avoiding white bread, candies, and sugary drinks in your daily diet, and instead opting for options like whole wheat bread, nuts, and water. It's a continuous adjustment to be made with every meal and snack.

Description

Choose foods with a lower glycemic index. These are foods that don’t cause spikes in your blood sugar [\[R\]](#).

How it helps

Avoiding high-glycemic index foods helps stabilize blood glucose levels, reducing hyperglycemia and the associated strain on the kidneys. This is crucial in diabetic nephropathy to slow disease progression and preserve renal function.

7



Avoid Low-Fat High-Carb Diets

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Opt for a diet that balances macronutrients rather than focusing on low fat and high carbohydrates. Include moderate to high amounts of healthy fats and proteins while choosing complex carbohydrates over simple ones. Aim to make this dietary adjustment a permanent part of your eating habits rather than a temporary diet.

Description

Avoiding low-fat-high-carb diets can help promote a balanced macronutrient intake and better blood sugar control. Incorporating healthy fats into the diet supports satiety, hormone production, and overall nutritional well-being.

How it helps

Avoiding low-fat, high-carb diets helps maintain stable blood sugar levels, which is crucial for preserving kidney function in diabetic nephropathy. Incorporating healthy fats supports overall metabolic health and reduces cardiovascular risks associated with the condition.

8



Metformin

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Metformin is available in **immediate-release and extended-release formulations**. Doses are in the 500 to 2,550 mg range and are usually taken with food twice daily (immediate-release) or once daily (extended-release). It can also be taken in **combination with certain anti-diabetic medications** (rosiglitazone and metformin - Avandamet, glyburide, and metformin - Glucovance) [R].

Description

Metformin is classified as a biguanide. It’s used as a first-line drug treatment for type 2 diabetes and PCOS. Doctors may prescribe it for its "off-label" use in people with conditions such as [insulin resistance](#) and even cancer. It is the most commonly prescribed anti-diabetic medication in the world [R].

How it helps

Metformin aids in glycemic control by improving insulin sensitivity and decreasing hepatic glucose production, which can reduce hyperglycemia-related kidney damage, thereby protecting renal function in patients with diabetic nephropathy.

9



Try low sodium diet

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To adopt a low sodium diet, aim to consume no more than 2,300 milligrams of sodium per day, which is roughly equivalent to one teaspoon of table salt. Focus on eating fresh fruits, vegetables, lean proteins, and whole grains, while avoiding processed foods, canned goods, and fast food, which are often high in sodium. Carefully read nutrition labels to monitor your sodium intake, and use herbs and spices instead of salt to flavor your food.

Description

According to research, eating a low sodium diet may also help decrease urine protein levels [R, R, R].

How it helps

A low-sodium diet helps in managing diabetic nephropathy by reducing fluid retention and lowering blood pressure, which can alleviate stress on the kidneys. This dietary approach also aids in minimizing urinary protein excretion, thereby protecting kidney function over time.

10



Bacillus Coagulans

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

Take a Bacillus coagulans supplement containing 1 to 2 billion CFUs (colony forming units) daily, with a glass of water, preferably with meals. This routine should be consistently followed for at least four weeks to potentially see benefits.

Description

Bacillus coagulans is a probiotic strain believed to support digestive health and boost the immune system. It's used in various probiotic supplements and may aid in maintaining gut balance.

How it helps

In a 12-week randomized trial with 60 patients having diabetic nephropathy (DN), those who consumed probiotic honey containing Bacillus coagulans T11 showed significant improvements in insulin levels, insulin resistance, insulin sensitivity, and total-/HDL-cholesterol compared to the control honey group. Probiotic honey also reduced high-sensitivity C-reactive protein (hs-CRP) and plasma malondialdehyde (MDA) levels, indicating potential benefits for DN patients' insulin metabolism and inflammation. Other metabolic profiles were unaffected [R].

11



Avoid Refined Sugar

IMPACT1 / 5

EVIDENCE1 / 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

Avoiding refined sugar helps maintain stable blood glucose levels, which is essential in controlling diabetes and preventing further deterioration of kidney function in diabetic nephropathy. Lower blood sugar levels reduce the risk of kidney damage, supporting overall renal health.

12



Quercetin

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 250-1000 mg of quercetin supplement daily with a glass of water, preferably with a meal to aid in its absorption.

TYPICAL STARTING DOSE

250 mg

Description

Quercetin is a natural plant flavonoid found in various foods, particularly in fruits and vegetables like apples, onions, and broccoli. It is used as a dietary supplement and is valued for its potential antioxidant and anti-inflammatory properties.

[Quercetin](#) is a **plant-based antioxidant**. It supports the immune system and helps lower inflammation [\[R\]](#), [\[R\]](#).

Good sources of quercetin include [\[R\]](#):

- Apples
- Onions
- Tea

People mainly use quercetin supplements to relieve allergies [\[R\]](#), [\[R\]](#), [\[R\]](#).

How it helps

A meta-analysis of 18 studies found that quercetin induced a reduction in mesangial index, Scr, BUN, 24-h urinary protein, serum urea, BG, kidney index, TNF, and other parameters. Furthermore, it could remarkably improve renal pathology [\[R\]](#).

Please note: *quercetin may inhibit the production of the thyroid hormone T4 (thyroxine). Individuals with thyroid disorders, particularly hypothyroidism or low T4 levels, should exercise caution when quercetin and always consult with a healthcare provider before taking this supplement* [\[R\]](#).

Please note: *quercetin may interfere with iron absorption due to its iron-chelating properties, potentially exacerbating anemia or making it harder to manage. If you have anemia, consult your healthcare provider before using quercetin supplements* [\[R\]](#).

13



Bitter Melon

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate bitter melon into your diet by adding it to dishes such as stir-fries or soups. Consume bitter melon 2-3 times per week, either in cooked form or as freshly made juice. For those preferring it in juice form, drink about 30-50 mL of bitter melon juice on an empty stomach each morning for best results.

Description

Bitter Melon is a green, cucumber-shaped fruit known for its bitter taste and health benefits. It has chemicals that act like insulin which helps decrease blood sugar levels. Therefore, it's great for people with diabetes or those trying to manage their sugar intake. In addition, it can aid digestion and boost immunity.

How it helps

Bitter melon has been shown to possess hypoglycemic properties, which can contribute to lowering blood glucose levels in individuals with diabetes. By effectively managing blood sugar levels, it helps to reduce the progression of diabetic nephropathy and protect kidney function.

14



Avoid Sugary Foods & Drinks

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid sugary foods, eliminate or significantly reduce consumption of foods and beverages high in added sugars such as sodas, candies, baked goods, and sugary cereals from your diet. Instead, opt for natural sugar sources like fruits. Aim to do this daily for ongoing health benefits.

Description

High-sugar foods like baked goods, sweets, and sugary drinks, can spike your blood sugar levels. Consuming a lot of these types of foods can contribute to health issues like diabetes, obesity, insomnia, and heart disease.

High-sugar foods and refined carbs have a high glycemic index (GI). This means they tend to spike your blood sugar levels. They include [R](#), [R](#), [R](#):

- Sugary drinks
- Baked goods
- Sweets
- White bread
- White rice
- Pasta

Eating a lot of sugary foods can contribute to:

- Diabetes [R](#), [R](#), [R](#)
- Weight gain and obesity [R](#), [R](#)
- Insomnia [R](#)
- Heart disease [R](#)

You may also want to avoid processed sugars and sugary drinks. They may have a role in increasing IL-1B [R](#), [R](#).

How it helps

Avoiding sugary foods and drinks is essential in managing diabetic nephropathy as it helps maintain stable blood glucose levels, thereby reducing the risk of kidney damage associated with elevated glucose. Controlled glucose levels can also improve overall metabolic health and protect kidney function.

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.

	Protein, Urine		Negative Positive	9 Nov 2025
	eGFR	71 mL/min/1.73 m2	306090120	29 Aug 2025
	HbA1c	30 mmol/mol	263648	29 Dec 2025
	Creatinine	1.08 mg/dL	0.60.71.11.2	9 Nov 2025
	Albumin/Creatinine Ratio, Random Urine	37 mg/g crt	01030300	9 Nov 2025