

Primary Sclerosing Cholangitis

Disease Report

REPORT CATEGORY —



Sample Client

Report date: 15 January 2026

Powered by

 omicsege

Table of Contents

03 How this works

- 04 Impact
- 05 Evidence
- 06 Some things to keep in mind

07 Introduction

08 Your genetics

10 Your recommendations

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

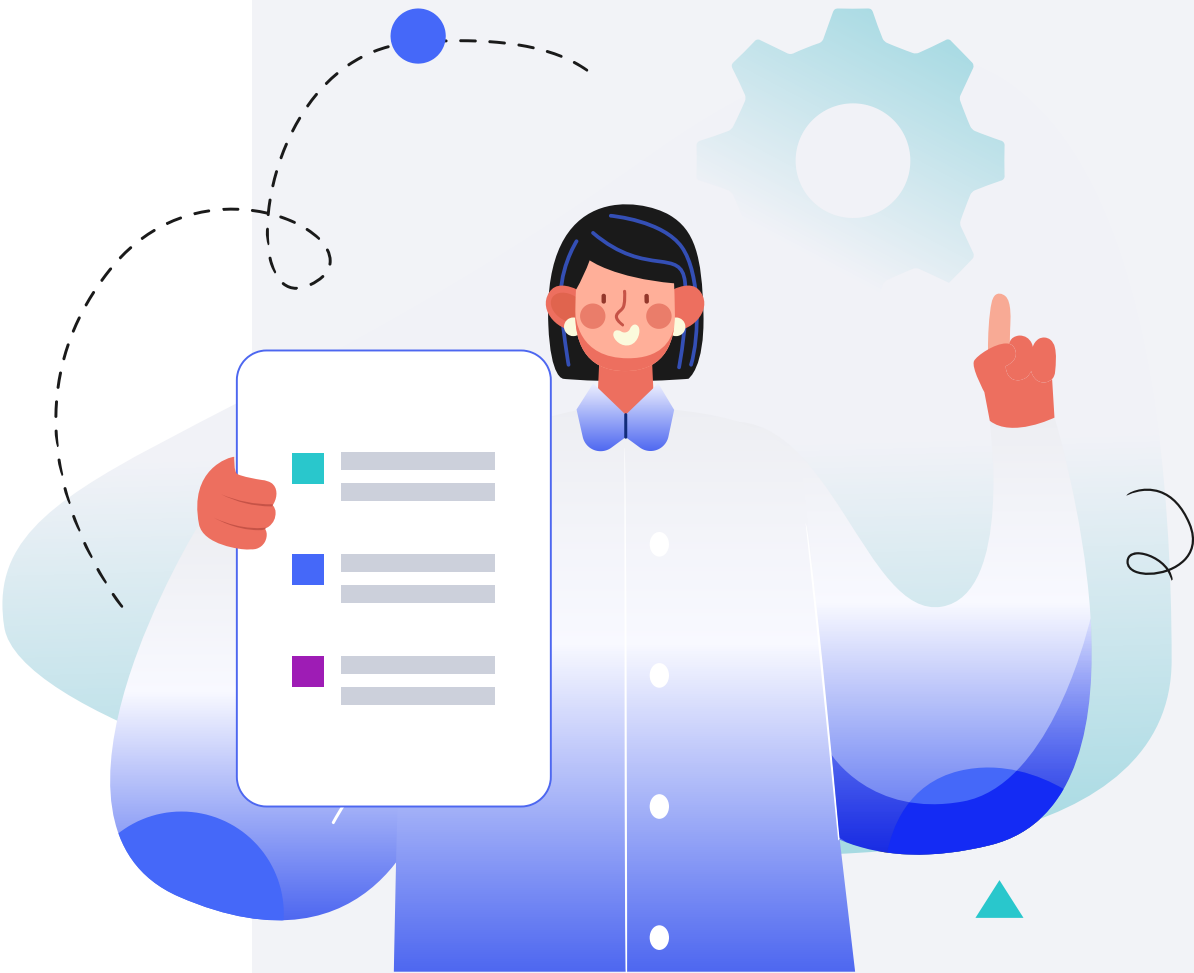
Male

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

Primary sclerosing cholangitis is a chronic, progressive liver disease characterized by inflammation and scarring of the bile ducts. This leads to the obstruction of bile flow from the liver to the small intestine, which can cause liver damage and eventually liver failure [R].

Early stages of PSC may be asymptomatic, but as the disease progresses, symptoms typically develop, including [R]:

- Jaundice (yellowing of the skin and eyes)
- Itching
- Fatigue
- Right upper quadrant abdominal pain
- Fever (if associated with bacterial cholangitis)

As the disease advances, complications such as cirrhosis can lead to additional symptoms, including fluid accumulation in the abdomen, bleeding varices, and confusion (due to hepatic encephalopathy).

Potential complications of primary sclerosing cholangitis include [R]:

- **Liver disease and failure** due to chronic inflammation, tissue scarring (cirrhosis), and liver cell death
- **Repeated infections** in the bile ducts
- High blood pressure in the vein that transports blood from the digestive system into the liver (**portal hypertension**). This can cause abdominal swelling (ascites) and swollen veins (varices).
- Thinning bones (**osteoporosis**)
- **Bile duct cancer**
- **Colon cancer** (if associated with IBD)

Risk Factors and Management

A large proportion of people with primary sclerosing cholangitis also have IBD, particularly ulcerative colitis. Other factors that may increase the risk of primary sclerosing cholangitis include [\[R\]](#):

- Age between 30 and 40
- Male sex
- Northern European heritage

The disease has no cure. Treatment focuses on managing the symptoms and may include [\[R\]](#):

- **Medications:** bile salts such as ursodeoxycholic acid may be used to improve liver enzyme levels and bile flow.
- **Endoscopic treatments:** procedures to dilate strictures in the bile ducts can help relieve obstruction.
- **Liver transplantation:** for patients who develop liver failure, transplantation is often the only option.
- **Monitoring and managing complications:** Regular monitoring for liver function, screening for cholangiocarcinoma (bile duct cancer), and management of portal hypertension are critical aspects of care.



TYPICAL LIKELIHOOD

Typical likelihood of primary sclerosing cholangitis based on 13,562 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
PRKD2	rs60652743	AA
TRAP1	rs74856421	TT
UBASH3A	rs1893592	AA
CCDC88B	rs663743	GG
IL2	rs13140464	TG
CD28	rs7426056	AG
ETS2	rs2836883	AG
INPP5A	rs61861422	CT
IL2RA	rs4147359	AG
MMEL1	rs3748816	GA
DEXI	rs725613	GT
GNGT2	rs850526	CT
TNFAIP3	rs72980770	CT
SH2B3	rs3184504	TC
FOXP1	rs36023390	CT
SIK2	rs7937682	GC
MANBA	rs228614	AG
FUT2	rs681343	TC
SLCO3A1	rs74407346	GG
SGSM1	rs145832854	AA
MME	rs61762349	GG
FOXP1	rs80060485	TT
MST1	rs3197999	GG
BCL2L11	rs72837826	GG

GENE	SNP	GENOTYPE
UTP4	rs79390277	AA
FOXO1	rs61954180	AA
BACH2	rs56258221	TT
CD226	rs1788097	CC
ST20-MTHFS	rs11632488	AA
CLNK	rs4293777	GG

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	Chanca Piedra	500 mg	2	TUDCA (Tauroursodeoxycholic Acid)	250 mg
3	Phosphatidylcholine	420 mg	4	Chicken Liver	
5	Dietary Choline		6	Ox Bile (Cholic Acid)	500 mg
7	Milk Thistle (Silymarin)	300 mg	8	Avoid Food Triggers	
9	Choline Supplements	425 mg	10	Limit Probiotic Supplements	

1



Chanca Piedra

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500 mg of Chanca Piedra supplement orally with water, once daily for a period of 1-3 months. Always check the product label for specific instructions regarding dosage and duration, as formulations may vary.

TYPICAL STARTING DOSE
500 mg

Description

Chanca piedra is a plant used in traditional herbal medicine and dietary supplements for its potential to support kidney and liver health. Some studies suggest it may have properties that can promote urinary tract health and help prevent kidney stones.

[Chanca piedra](#) (*Phyllanthus niruri*) is an herb that grows in tropical areas. The plant is used to make teas, liquid extracts, capsules, or tablets. It has a history of traditional use in China and Malaysia [\[R\]](#).

Some people take chanca piedra to help support the digestive system, liver, and kidneys [\[R\]](#).

How it helps

Chanca Piedra may support liver health by promoting bile flow and reducing inflammation, which can be beneficial in managing Primary Sclerosing Cholangitis (PSC) by potentially alleviating disease progression and symptoms.

2



TUDCA (Tauroursodeoxycholic Acid)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 250 to 1500 mg of TUDCA (tauroursodeoxycholic acid) per day, divided into two or three doses with meals. This recommendation is based on general guidelines from clinical studies; for specific conditions or as directed by a healthcare professional, dosages may vary.

TYPICAL STARTING DOSE
250 mg

Description

TUDCA is a bile acid derivative naturally produced in small quantities in the human body and also found in the bile of bears. It is often used as a supplement due to its potential to support liver health, reduce inflammation, and protect against bile acid buildup, making it valuable in managing liver conditions like cholestasis and certain liver diseases.

TUDCA, short for tauroursodeoxycholic acid, is a [bile acid](#) that naturally occurs in the body. It consists of ursodeoxycholic acid (UDCA) and taurine [\[R\]](#).

TUDCA is known for its liver-protective effects. People often use it as a dietary supplement to support liver health and promote overall well-being [\[R\]](#).

How it helps

TUDCA aids in the management of Primary Sclerosing Cholangitis by promoting bile flow and reducing bile acid toxicity, which can help mitigate liver damage and improve liver function over time. Its anti-inflammatory properties may also assist in alleviating symptoms associated with this condition.

3



Phosphatidylcholine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 420-900 mg of phosphatidylcholine supplement daily, ideally with meals to enhance absorption. Continue this regimen for at least 3 months to evaluate its effects on your health.

TYPICAL STARTING DOSE

420 mg

Description

Phosphatidylcholine is a crucial phospholipid found in cell membranes throughout the body, particularly in the brain. It plays a vital role in cognitive function and liver health, supporting processes like cell signaling and fat metabolism.Phosphatidylcholine can be derived from soybeans and other sources, and it is often used as a dietary supplement to promote brain health and liver function.

[Phosphatidylcholine](#) is a key component of cells [\[R\]](#).

It helps [\[R, R, R, R, R, R, R\]](#):

- Maintain cell structure
- Protect the lungs, gut, liver, and nerves
- Break down fats

Because [choline](#) is needed to make phosphatidylcholine, low choline levels can limit its production [\[R\]](#).

How it helps

Phosphatidylcholine may help manage Primary Sclerosing Cholangitis by enhancing liver health and supporting fat metabolism, which can be beneficial given the liver's role in processing fats and detoxification in this condition.

4



Chicken Liver

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate chicken liver into your meals 1-2 times per week, aiming for portions of about 100 grams (3.5 ounces) per serving. You can cook it by pan-frying, baking, or incorporating it into dishes like pâtés or spreads.

Description

Chicken liver is a nutrient-dense food that is rich in iron, vitamin A, and other essential nutrients. It can be a valuable addition to the diet to support healthy blood and overall nutritional health.

How it helps

In individuals with Primary Sclerosing Cholangitis, chicken liver provides essential nutrients like iron and vitamin A, which support immune function and red blood cell production, thereby helping to mitigate fatigue and improve overall health.

5



Dietary Choline

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Increase your intake of choline-rich foods such as eggs, beef liver, chicken liver, fish, peanuts, and dairy products. Aim for an adult intake of about 425 mg to 550 mg of choline per day through these food sources, as part of your regular diet.

Description

Choline is an essential nutrient that supports brain function, nerve signaling, and liver health. It is involved in neurotransmitter synthesis and cell membrane structure.

How it helps

Choline plays a critical role in liver health by aiding in the synthesis of phospholipids, which are vital for maintaining cell membrane integrity and function. In the context of Primary Sclerosing Cholangitis, adequate choline intake may help mitigate liver inflammation and support overall hepatic function.

6



Ox Bile (Cholic Acid)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take one 500 mg capsule of ox bile with each meal, not exceeding three capsules daily. This supplement should be used under the guidance of a healthcare professional, especially if you are dealing with a specific medical condition affecting your bile production or digestion.

TYPICAL STARTING DOSE

500 mg

Description

Ox bile is a substance derived from the gallbladders of cattle and is used as a dietary supplement to aid in the digestion of fats. Tradition Chinese medicine has been using ox bile for over 2,000 years. It may be beneficial for individuals with conditions that affect fat absorption.

How it helps

Ox bile supplementation can enhance fat digestion and absorption in individuals with Primary Sclerosing Cholangitis, addressing the impaired bile production commonly associated with this condition and alleviating related digestive issues.

7



Milk Thistle (Silymarin)

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a 300 mg milk thistle (silymarin) supplement daily with water, preferably with a meal for better absorption. Continue this regimen as advised by your healthcare provider.

TYPICAL STARTING DOSE

300 mg

Description

Silymarin is a natural plant extract derived from the milk thistle plant (*Silybum marianum*). It has been traditionally used for its potential anti-inflammatory and liver-protective properties. Silymarin consists of several flavonolignans, including silybin, silydianin, and silychristin.

Milk thistle (*Silybum marianum*) is a purple flowering plant in the daisy family. Traditionally, it has been used for liver problems. Some people also eat the leaves in salads [\[R, R\]](#).

The extract of milk thistle is called *silymarin* [\[R, R, R\]](#).

People use milk thistle to help with [\[R, R, R\]](#):

- Liver problems
- Blood sugar control
- Indigestion
- Skin problems

How it helps

Milk thistle (silymarin) may help manage Primary Sclerosing Cholangitis by exerting anti-inflammatory effects and protecting liver cells from further damage, thereby supporting overall liver health and function in affected individuals.

8



Avoid Food Triggers

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Identify foods that trigger negative reactions in your body, such as digestive issues, allergies, or headaches, and eliminate them from your diet entirely. This may require keeping a food diary for a few weeks to observe patterns and might involve cutting out common triggers like dairy, gluten, soy, or certain additives. Continuously monitor and adjust your diet to avoid these triggers as long as the symptoms persist.

Description

Food triggers are specific substances or ingredients in one's diet that can exacerbate or induce adverse reactions, such as allergies, sensitivities, or digestive issues, often leading to symptoms like inflammation, bloating, or discomfort.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

Food triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [R](#), [R](#), [R](#), [R](#):

- Gut problems
- Skin problems
- Migraines

How it helps

Avoiding food triggers in individuals with Primary Sclerosing Cholangitis (PSC) may help reduce gastrointestinal inflammation and discomfort, potentially leading to improved overall digestive health and symptom management.

9



Choline Supplements

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take choline supplements at a dosage of 425 mg to 550 mg daily, depending on age and gender, with a glass of water. It is best to consume choline supplements with a meal for optimal absorption. Continue this regimen daily as part of your dietary supplement routine.

TYPICAL STARTING DOSE

425 mg

Description

Choline is an essential nutrient that plays a crucial role in various bodily functions, including brain health, liver function, and metabolism. Incorporating choline-rich foods into your diet supports cognitive function and overall nutritional well-being.

[Choline](#) is a nutrient required for optimal health. Although the body makes some, we need to get choline from our diets to avoid deficiency [\[R\]](#).

It plays key roles in supporting [\[R\]](#), [\[R\]](#):

- DNA production
- Cell structure and function
- Brain, nerve, and heart health

Eggs and beef liver are the best sources of choline. If you can’t meet your daily requirements with food, consider taking a choline supplement such as [\[R\]](#):

- [Phosphatidylcholine](#) (PC)
- [Citicoline](#) (CDP-choline)
- [Alpha-GPC](#)
- [Lecithin](#)

They all supply choline, but each one has unique health perks you may prefer. Check out our posts on different choline-containing supplements to find out which one suits you best.

How it helps

Choline supplements may enhance liver function by supporting bile production and reducing liver fat accumulation, which is particularly beneficial in managing Primary Sclerosing Cholangitis. This can potentially alleviate symptoms and contribute to overall liver health.

10



Limit Probiotic Supplements

IMPACT1 / 5

EVIDENCE1 / 5

Description

Limiting probiotics supplements could be a prudent approach, especially if you're experiencing symptoms like bloating or discomfort, which might indicate that your body is adjusting to these beneficial bacteria. People with a weakened immune system may need to be extremely careful [\[R\]](#).

Probiotics supplements are known for their benefits, such as improving digestive health, enhancing immune function, and potentially reducing depression and heart disease risk. However, excessive intake may lead to digestive imbalances or reduce the gut's native bacterial diversity in some people [\[R\]](#), [\[R\]](#).

Starting with a lower dose and gradually increasing, or consuming probiotic-rich foods in moderation, can help your body adapt without discomfort.

Consulting with a healthcare provider for personalized advice is recommended.

How it helps

Limiting probiotic supplements in individuals with Primary Sclerosing Cholangitis may help mitigate potential dysbiosis, reducing the risk of exacerbating liver inflammation and enhancing the overall function of the biliary system.