

Bile Duct Inflammation

DNA Health Report

REPORT CATEGORIES —



INFLAMMATION &
AUTOIMMUNITY



LIVER HEALTH

Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

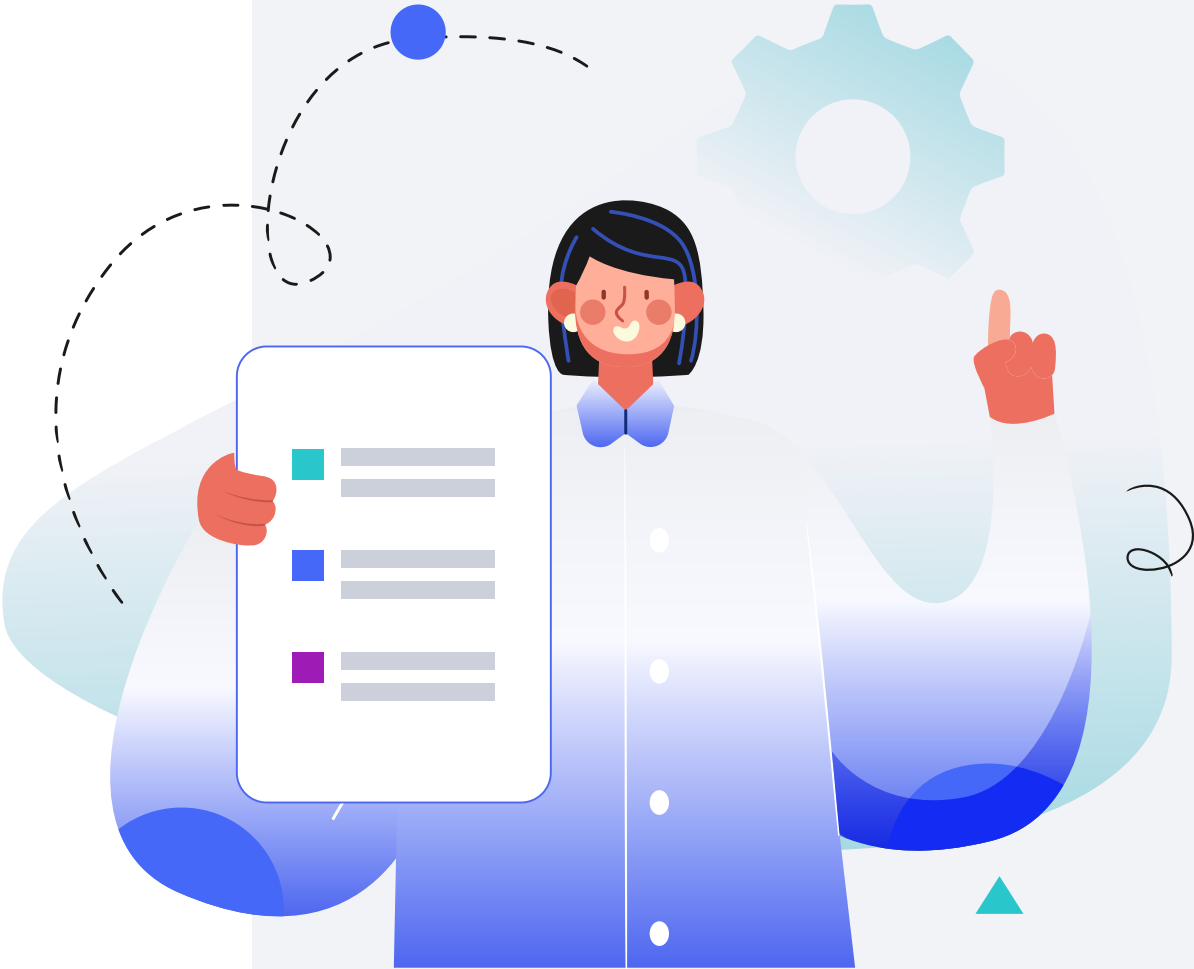
5ft 5" 165cm

WEIGHT

137lb 62kg

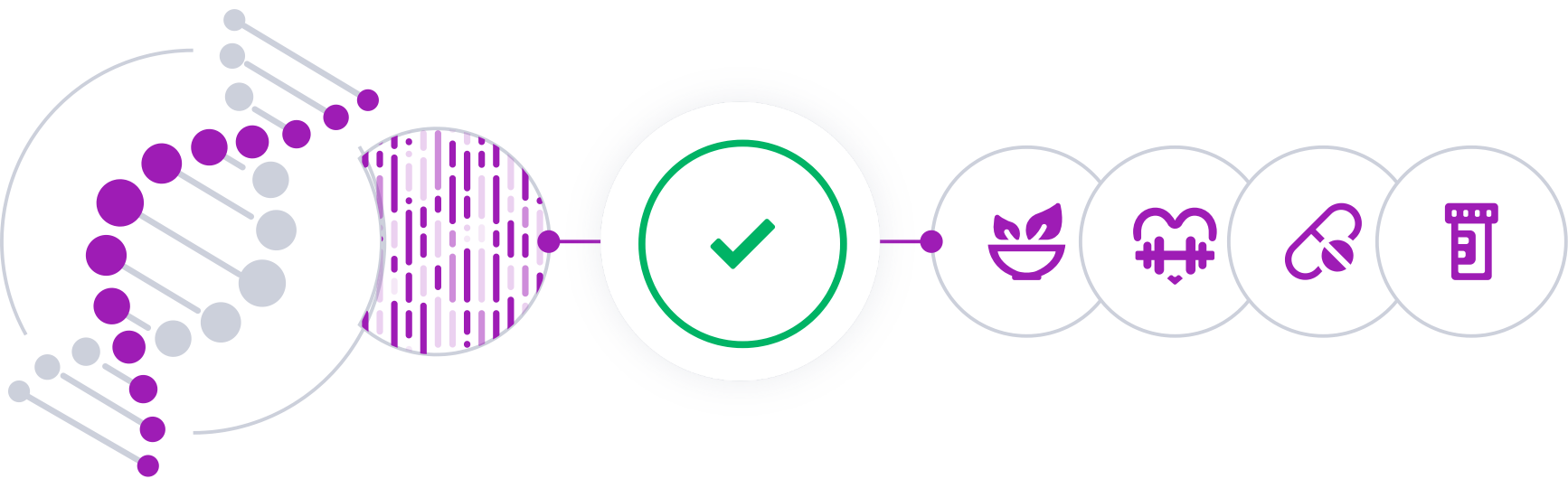
DISCLAIMER

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.



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.

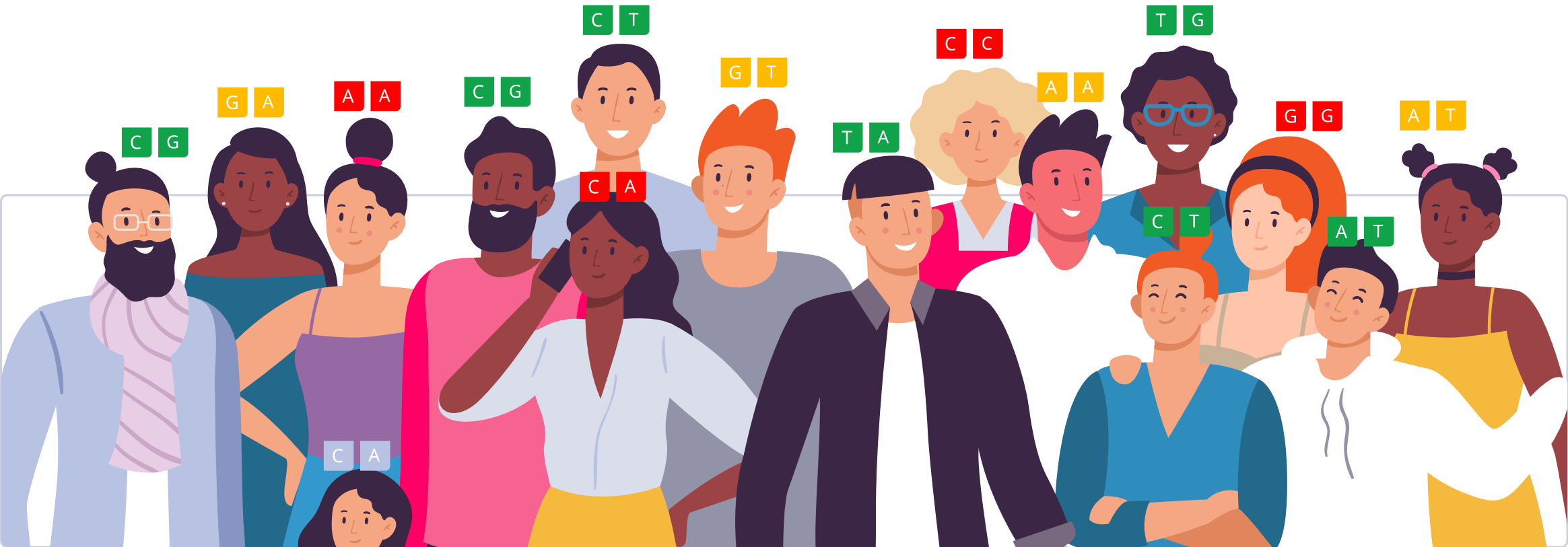


Similarly, our Trait Reports look at how your DNA influences your traits.



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

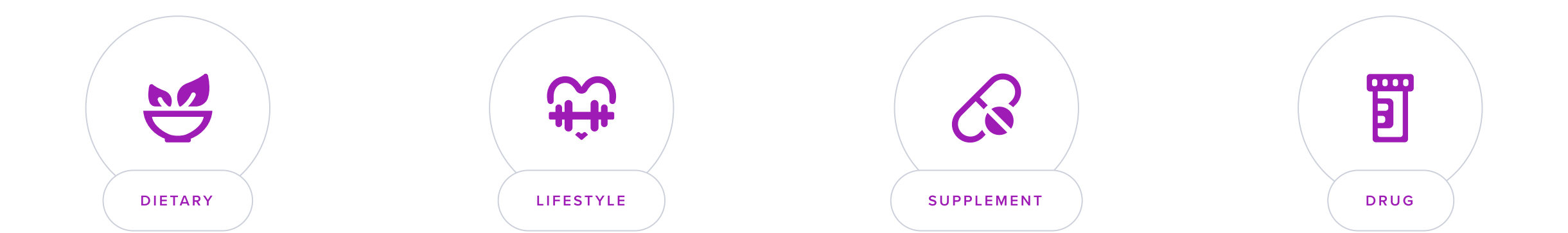
You have 2 risk alleles

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

Cholangitis is an inflammation of the bile duct system, which is a crucial component in the digestion and elimination of waste products from the body. The condition is typically caused by a bacterial infection, which can ascend from the small intestine to the bile ducts.

Often, the infection is the result of an obstruction, such as gallstones, which block the flow of bile and create an environment where bacteria can thrive. If not treated promptly, cholangitis can lead to severe complications including bile duct strictures, chronic liver diseases, and can be life-threatening.

Symptoms and Treatment

The typical symptoms of cholangitis can include upper right abdominal pain, jaundice (a yellowing of the skin and eyes), fever, and chills, indicating systemic infection. In severe cases, known as acute cholangitis, patients may develop confusion and low blood pressure, which is a medical emergency called septic shock.

The treatment often involves antibiotics to clear the infection and procedures to relieve bile duct obstruction. In some cases, long-term management may be necessary to prevent recurrence and preserve liver function.



TYPICAL LIKELIHOOD

Typical likelihood of bile duct inflammation based on 5,253 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	Berberine	1000 mg	2	Milk Thistle (Silymarin)	300 mg
3	Regular Sleep Schedule		4	TUDCA (Tauroursodeoxycholic Acid)	250 mg
5	Curcumin	500 mg	6	Good Oral Hygiene	2 minutes
7	Probiotic Yogurt				

1



Berberine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take 500 mg of berberine two times a day before meals. Continue this regimen for up to three months, then evaluate its effects with your healthcare provider.

TYPICAL STARTING DOSE

1000 mg

Description

Berberine is a compound found in certain plants, known for its potential to support blood sugar control and heart health.

[Berberine](#) is an active compound of some plants used in traditional medicine, such as [\[R\]](#):

- European barberry
- Oregon grape
- Goldenseal
- Chinese goldthread
- Tree turmeric

Berberine is also available as a supplement. People use it to help with [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Diabetes
- High cholesterol
- High blood pressure
- PCOS

How it helps

An 18-week study on HTD1801 for primary sclerosing cholangitis (PSC) showed a significant reduction in alkaline phosphatase levels, suggesting potential efficacy. The drug was well-tolerated, supporting further investigation into its use as a PSC treatment [\[R\]](#).

A pilot study reported improvement in serum alkaline phosphatase in PSC patients treated with a ursodeoxycholate berberine salt, but without a UDCA monotherapy control, benefits over UDCA alone remain unclear [\[R\]](#).

2



Milk Thistle (Silymarin)

IMPACT

0 / 5

EVIDENCE

0 / 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, particularly the silymarin component, has been researched for its potential to protect liver cells by acting as an antioxidant, reducing inflammation, and helping damaged liver cells to repair themselves. It may help manage symptoms of liver diseases, including cholangitis, by supporting liver function.

3



Regular Sleep Schedule

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Go to bed and wake up at the same time every day, even on weekends and holidays. This helps regulate your body's internal clock, leading to better sleep quality. Aim for 7-9 hours of sleep per night.

Description

Maintaining a regular sleep schedule involves going to bed and waking up at consistent times each day. This practice helps regulate the body's internal clock and promotes better sleep quality, mood, and cognitive function.

How it helps

Sticking to a regular sleep schedule can help manage cholangitis by reducing stress and improving overall immune function. Good sleep can also help the body to better regulate inflammation and potentially reduce the severity of symptoms associated with cholangitis.

4



TUDCA (Tauroursodeoxycholic Acid)

IMPACT

0 / 5

EVIDENCE

0 / 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, a bile acid, has been shown in studies to improve liver function by facilitating the flow of bile. This can be beneficial in conditions like cholangitis, where bile flow is obstructed, leading to inflammation and liver damage.

5



Curcumin

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take a 500 mg curcumin supplement daily with food. To enhance absorption, take it with a meal that contains fats or oils since curcumin is fat-soluble.

TYPICAL STARTING DOSE
500 mg

Description

Curcumin is a compound found in turmeric known for its anti-inflammatory and antioxidant properties. It has been studied for its potential to reduce inflammation, support joint health, and contribute to overall well-being.

[Turmeric](#) is a yellow spice from India. It may reduce inflammation and [oxidative stress](#) [R].

The most important active compound in turmeric is **curcumin**. People use curcumin for [R, R, R, R, R, R]:

- Joint pain
- Hay fever
- Mood
- High blood sugar
- Gut health
- Liver health

How it helps

Curcumin, the active compound in turmeric, has strong anti-inflammatory and antioxidant properties. It might help reduce inflammation in the liver and bile ducts, potentially benefiting individuals with cholangitis by improving liver function and reducing symptoms.

6



Good Oral Hygiene

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Brush your teeth at least twice a day for two minutes each time using fluoride toothpaste. Floss daily to remove plaque from places your toothbrush can't reach and consider using mouthwash. Visit your dentist at least twice a year for professional cleanings and checkups.

TYPICAL STARTING DOSE

2 minutes

Description

Good oral hygiene, which includes regular brushing, flossing, and dental check-ups, is crucial for preventing tooth decay, gum disease, and maintaining overall oral health. A healthy mouth contributes to overall well-being and can prevent dental issues that may impact systemic health.

Oral hygiene refers to practices that keep the mouth healthy. Good habits include [\[R\]](#), [\[R\]](#):

- Gently brushing the teeth and tongue for two minutes, at least twice a day
- Flossing daily
- Using a toothpaste with fluoride and a soft toothbrush
- Replacing a worn toothbrush at least every 3 months

To help maintain good oral hygiene, it is also important to regularly see dental professionals. They can help prevent and address issues with your teeth and gums.

How it helps

Maintaining good oral hygiene is important for individuals with cholangitis because poor oral health has been linked to an increased risk of bacteria entering the bloodstream. This can potentially lead to infections that can exacerbate liver conditions and complicate cholangitis.

7



Probiotic Yogurt

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Consume one to two servings of probiotic yogurt each day. Each serving is typically 6 to 8 ounces. Continue this practice daily for at least 1 to 2 weeks to begin noticing benefits to digestive health.

Description

Probiotic yogurt is a dairy product containing live probiotic cultures like Lactobacillus and Bifidobacterium, which can aid digestion and improve gut health when consumed regularly. It is a good source of calcium, protein, and probiotics, contributing to bone health and digestive well-being.

How it helps

Probiotic yogurt contains beneficial bacteria that can aid in maintaining a healthy balance of gut flora. This balance is crucial for patients with cholangitis because it can help reduce inflammation and potentially prevent bacterial infections that may exacerbate the condition.

Next Steps

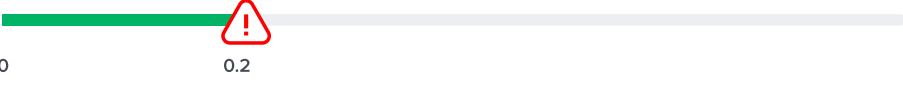
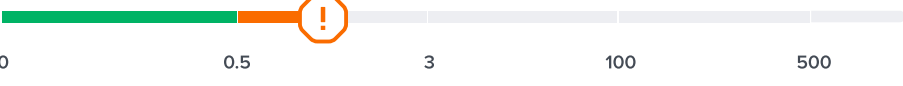
Remember, your genes only tell one important part of your health story!

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.

	ALT	26 IU/L		9 Nov 2025
	AST	17 IU/L		9 Nov 2025
	ALP	68 IU/L		9 Nov 2025
	WBC	6.92 x10^3/mm3		9 Nov 2025
	GGT	9 IU/L		9 Nov 2025
	Bilirubin, Direct	0.3 mg/dL		9 Nov 2025
	hs-CRP	1.6 mg/L		9 Nov 2025
	Bilirubin, Total	1 mg/dL		9 Nov 2025