

THE LIVER AND CHOLESTATIC PRURITUS

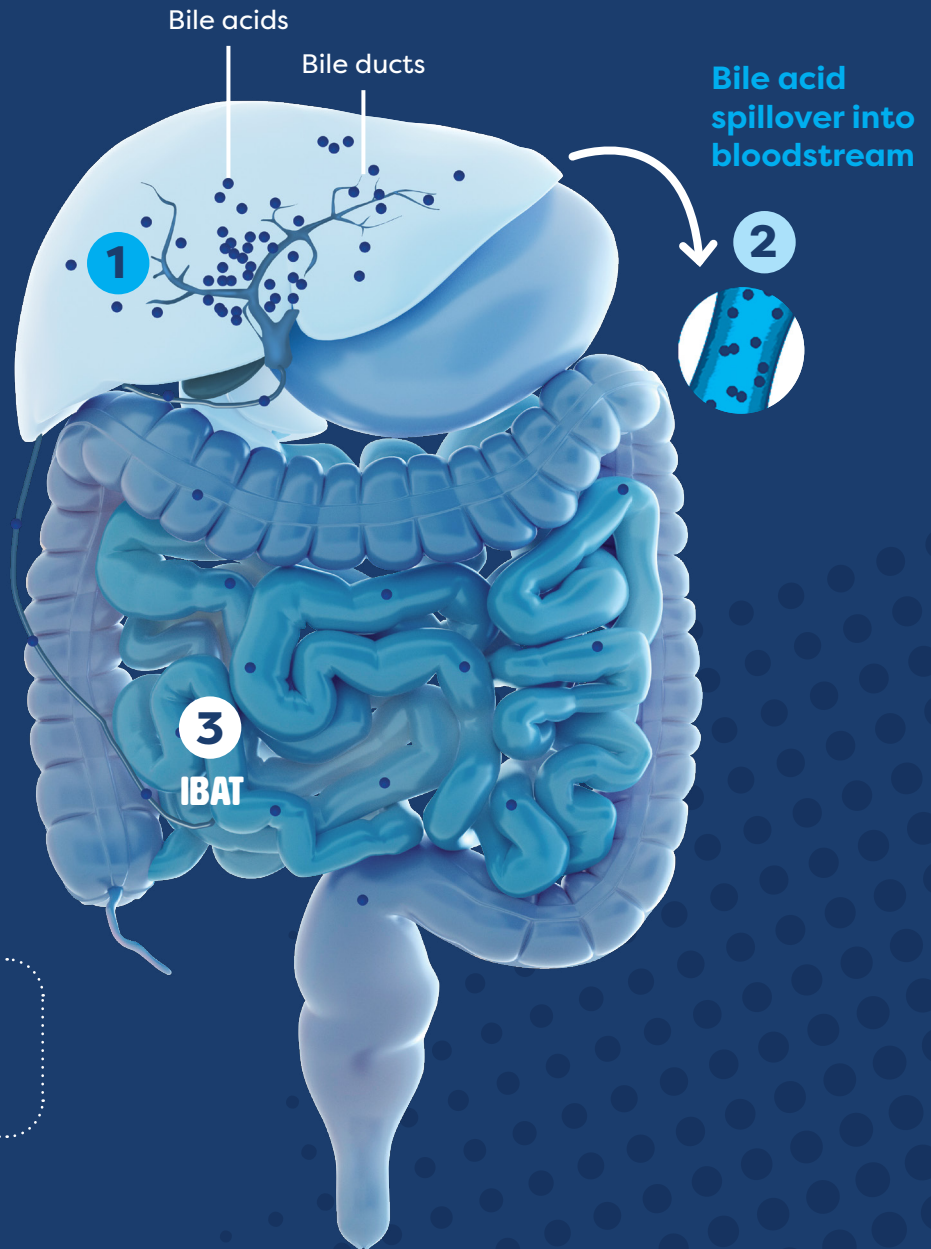
How does Alagille syndrome affect the liver and cause cholestatic pruritus? (It's more than just itching!)

1 People with Alagille syndrome have too few bile ducts, which **prevents bile from flowing out of the liver.**

2 When bile is not flowing out of the liver, **bile acids—a part of bile—build up in the liver and the blood.**

3 95% of bile acids made by the liver are **recycled in the intestine through the ileal bile acid transporter (IBAT).**

Bile acid buildup may cause **immediate problems (cholestatic pruritus)** and have **long-term impacts (liver problems).**



**READ ON TO
learn about
a treatment option**



WHY



LIVMARLI is an FDA-approved medicine for cholestatic pruritus (itch) in patients with Alagille syndrome who are **3 months of age and older**.

SEE LIVMARLI IN ACTION!

Visit LIVMARLI.com to learn more about how LIVMARLI works in the body to reduce cholestatic pruritus (itch).

IMPORTANT SAFETY INFORMATION

What are the possible side effects of LIVMARLI?

LIVMARLI can cause serious side effects, including:

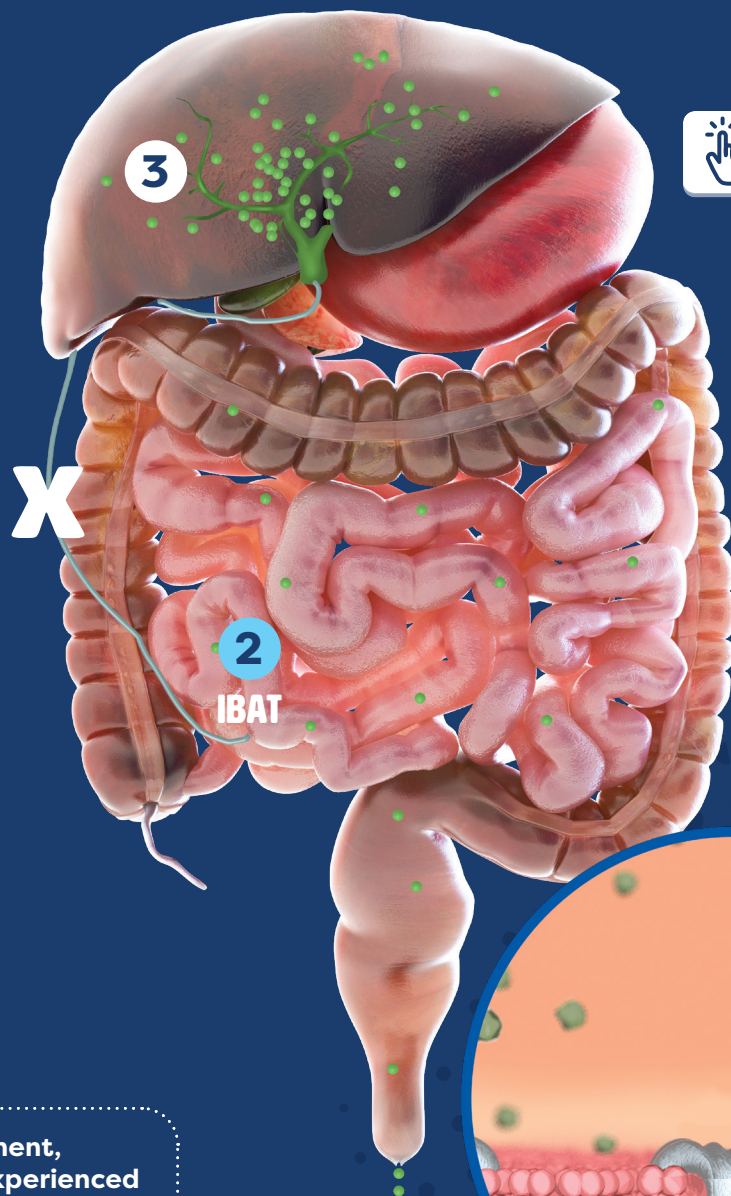
- **Liver injury.** Changes in certain liver tests are common in patients but may worsen during treatment with LIVMARLI. These changes may be a sign of liver injury and can be serious. Your health care provider should do blood tests and physical exams before starting and during treatment to check your liver function.



Please see Important Safety Information throughout and full [Patient Information](#).

HOW DOES LIVMARLI WORK TO REDUCE CHOLESTATIC PRURITUS IN THE BODY?

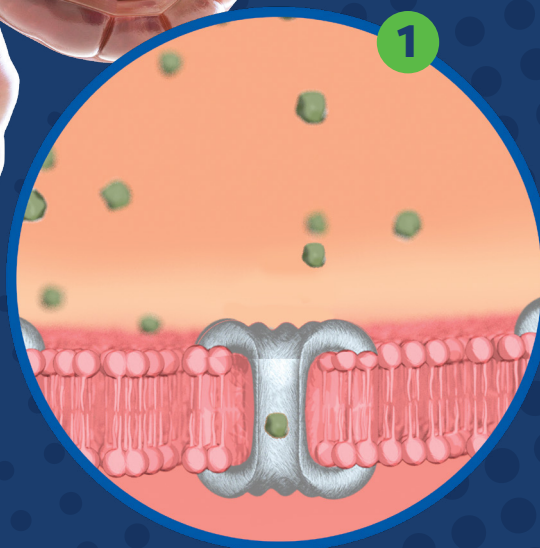
- 1 LIVMARLI targets and temporarily blocks something called the ileal bile acid transporter (IBAT). In doing so, LIVMARLI lowers bile acids in the body (as measured by levels in the blood).
- 2 LIVMARLI blocks bile acids from going back into the liver and increases the amount of bile acids removed from the body in feces.
- 3 In the clinical study for LIVMARLI, reductions in bile acid buildup were associated with decreases in intensity of cholestatic pruritus.



SEE A
**REDUCTION
IN BILE ACID
BUILDUP**

During the first year of treatment, more than 80% of patients experienced less cholestatic pruritus than they felt at the start with LIVMARLI.

The way LIVMARLI improves cholestatic pruritus is not completely known. It may involve inhibition of the IBAT, which interrupts bile acid recycling to the liver and decreases serum bile acids.



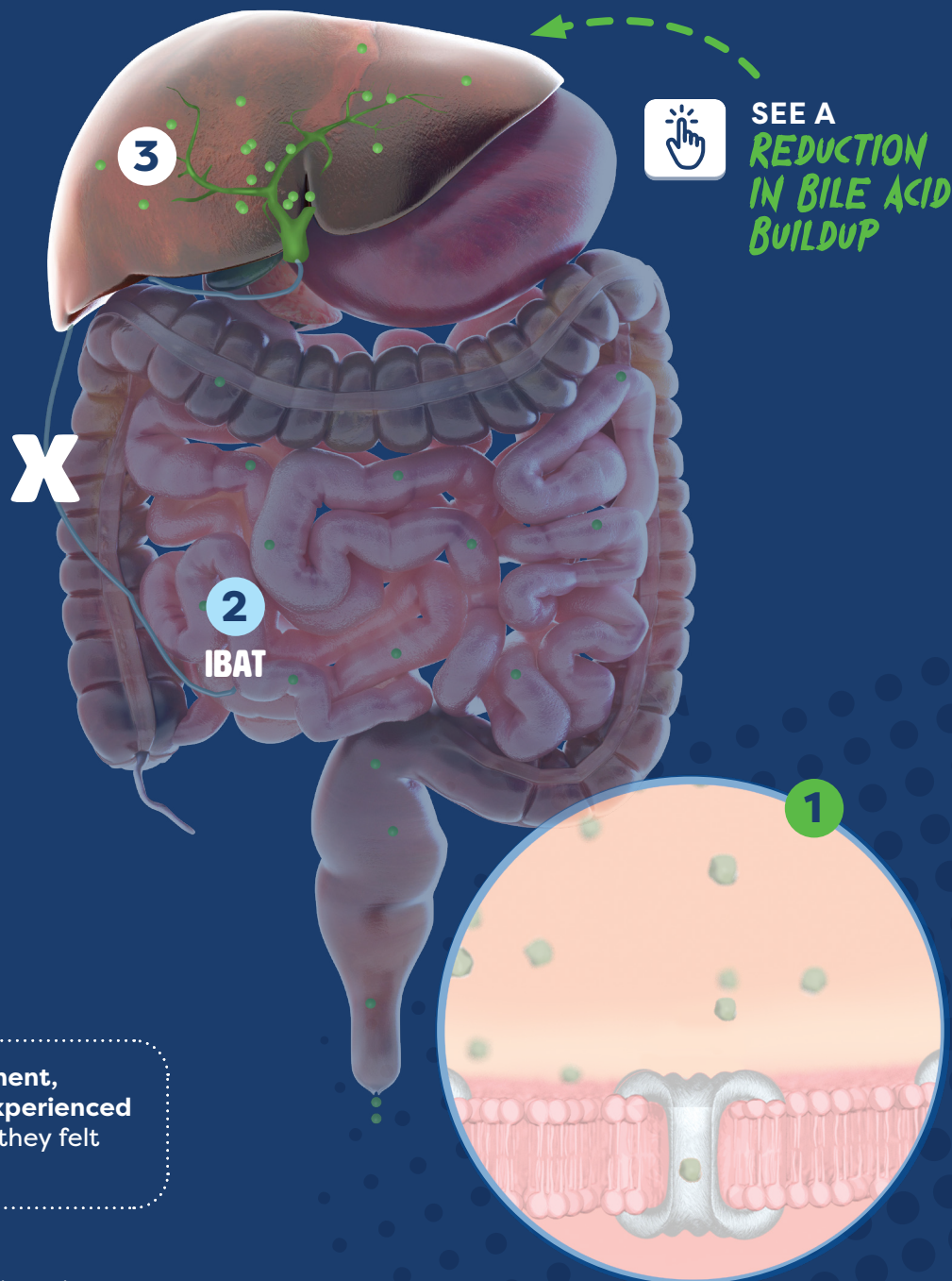
DISCOVER HOW
**LIVMARLI TARGETS
THE IBAT**



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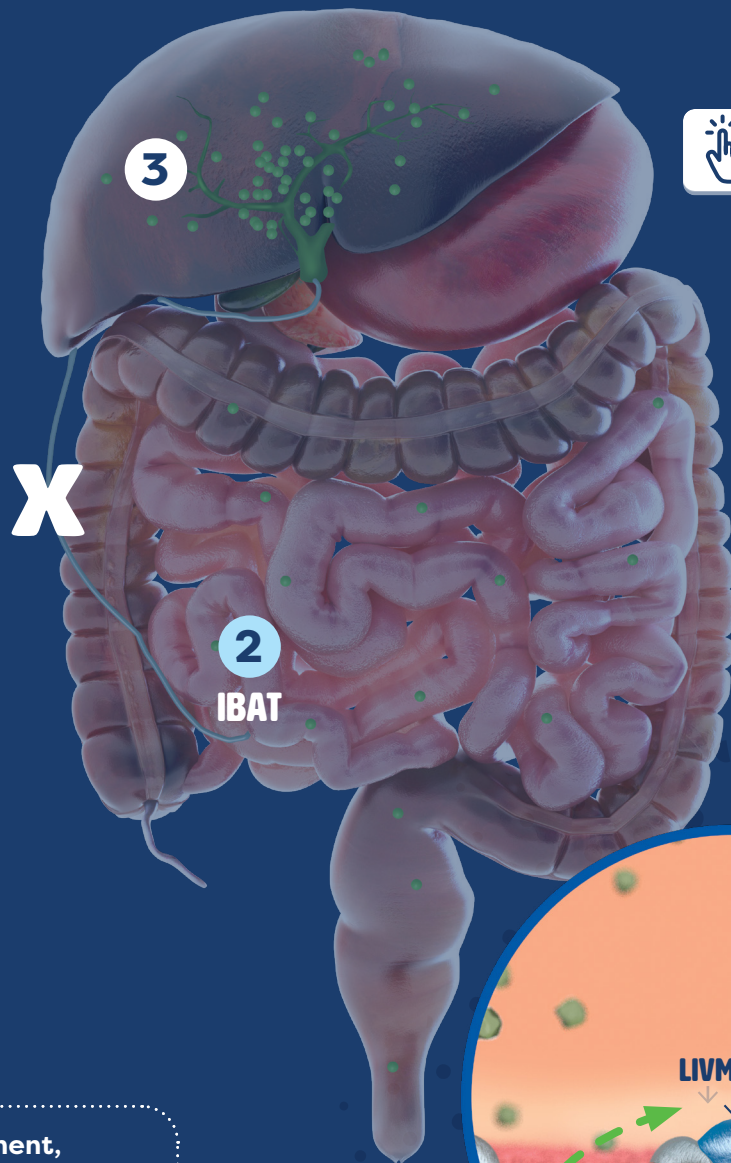
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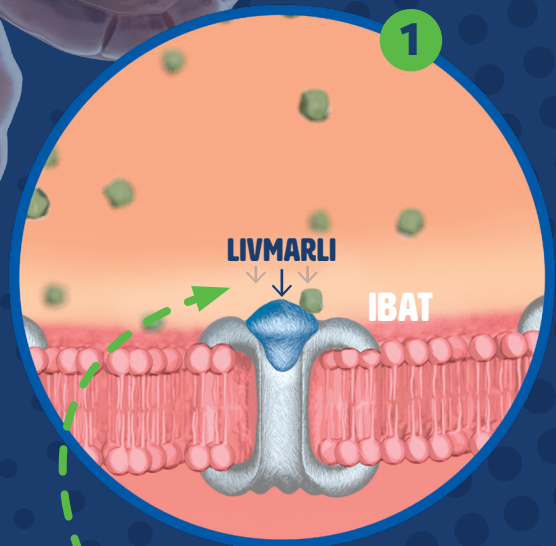
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LIVMARLI HAS BEEN USED BY **850+ PATIENTS** TO HELP TREAT CHOLESTATIC PRURITUS*

*Includes clinical studies, early access program, and commercial treatment.

VISIT [LIVMARLI.COM](https://livmarli.com) TO HEAR FROM REAL PATIENTS AND THEIR FAMILIES.

IMPORTANT SAFETY INFORMATION

What are the possible side effects of LIVMARLI? (cont'd)

Tell your health care provider right away if you get any signs or symptoms of liver problems, including:

- nausea or vomiting
- your skin or the white part of your eye turns yellow
- dark or brown urine
- pain on the right side of your stomach (abdomen)
- fullness, bloating, or fluid in your stomach area (ascites)
- loss of appetite
- bleeding or bruising more easily than normal, including vomiting blood

- **Stomach and intestinal (gastrointestinal) problems.** LIVMARLI can cause stomach and intestinal problems, including diarrhea and stomach pain during treatment. Diarrhea can also cause the loss of too much body fluid (severe dehydration). Your health care provider may advise you to monitor for new or worsening stomach problems, including stomach pain, diarrhea, blood in your stool, or vomiting

Tell your health care provider right away if you have any new or worsening signs or symptoms of stomach and intestinal problems, including:

- diarrhea
 - more frequent bowel movements than usual
 - stools that are black, tarry, or sticky, or have blood or mucous
 - severe stomach-area pain or tenderness
 - vomiting
 - urinating less often than usual
 - dizziness
 - headache
- A condition called **Fat-Soluble Vitamin (FSV) Deficiency caused by low levels of certain vitamins (vitamin A, D, E, and K) stored in body fat.** FSV deficiency is common in patients with Alagille syndrome but may worsen during treatment. Your health care provider should do blood tests before starting and during treatment, and may monitor for bone fractures and bleeding, which are common side effects

Tell your health care provider about all medicines that you take, as LIVMARLI may interact with other medicines. If you take a medicine that lowers cholesterol by binding bile acids, such as cholestyramine, colestesvelam, or colestipol, take it at least 4 hours before or 4 hours after you take LIVMARLI.

Your health care provider may change your dose, or temporarily or permanently stop treatment if you have certain side effects.

LIVMARLI is taken by mouth, 1 time each day, 30 minutes before a meal in the morning. Be sure to use the provided oral dosing dispenser to accurately measure the dose of medicine.

These are not all of the possible side effects of LIVMARLI. For more information, ask your health care provider or pharmacist. Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.



Please see Important Safety Information
throughout and full [Patient Information](#).

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