

INFORMATION FOR PATIENTS

Having a cystic duct stent

After a gallbladder drain

This leaflet is for patients who have been told they may need a cystic duct stent after having a gallbladder drain (cholecystostomy). It explains what the stent is, why it has been offered, what is involved, the risks, and what to expect afterwards.

The health organisation NICE says this treatment should only be used with extra checks to make sure it is safe and done properly. A team of surgeons and x-ray doctors (radiologists) will look at your case together.

Your healthcare team will explain:

- What they know about the treatment.
- What they are still unsure about.
- Why they think it might be a good option for you.

Please ask questions at any point. You can change your mind at any time before the procedure.

Your gallbladder and the cystic duct

Your gallbladder is a small, pear-shaped organ that sits under the liver on the upper right side of your abdomen. It stores bile, a fluid made by the liver that helps you digest fat. Bile leaves the gallbladder through a narrow tube called the cystic duct. The cystic duct joins the common bile duct, which carries bile down into the small bowel.

If the cystic duct becomes blocked, usually by a gallstone or by inflammation, your gallbladder cannot drain normally and becomes obstructed. The gallbladder swells, becomes painful, and can on occasion get infected. This is called inflammation of the gallbladder or acute cholecystitis.

What is it and why has this been offered to me?

A cystic duct stent is a small tube that can help some people avoid having a drain tube outside their body for a long time.

You have most likely been offered this because:

- You have had a gallbladder drain (cholecystostomy) placed because of an inflamed or infected gallbladder, and your team would like to be able to safely remove the external drain by giving you an internal route for bile to flow,
- Removing your gallbladder by surgery (cholecystectomy) is currently considered too risky for you, often because of your other medical conditions or overall fitness.
- Less commonly, a stent may be considered in patients with repeated gallbladder problems where surgery is not safe and a drain has not yet been placed. Your team will explain it if this applies to you.

Sometimes, after reviewing your case, the team may advise that one option is not safe enough to offer you. We will always be honest with you about what we think is best.

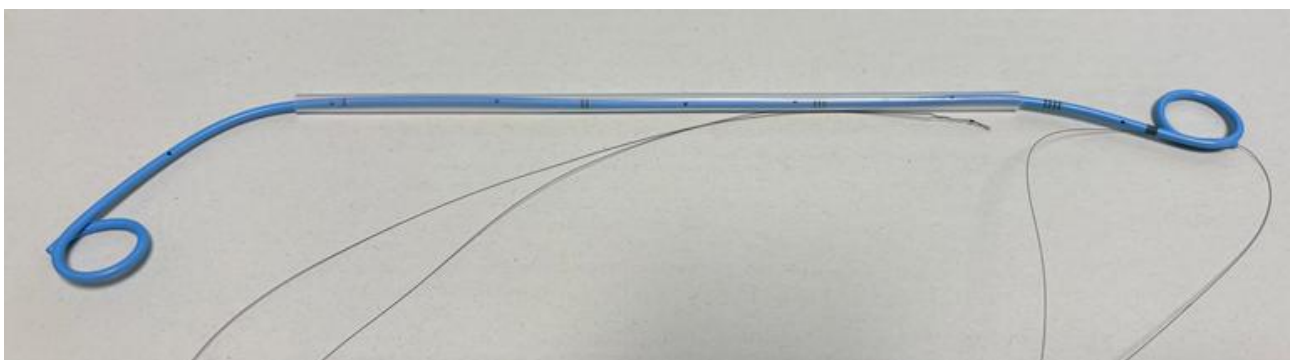
What the stent does, and what it does not do

What it does:

- Holds the cystic duct open so bile can drain through the gallbladder and into the bile duct and bowel.
- In selected patients, allows the external drain (and the bag on your skin) to be removed.
- May reduce the chance of further blockage or infection of the gallbladder.

What it does not do:

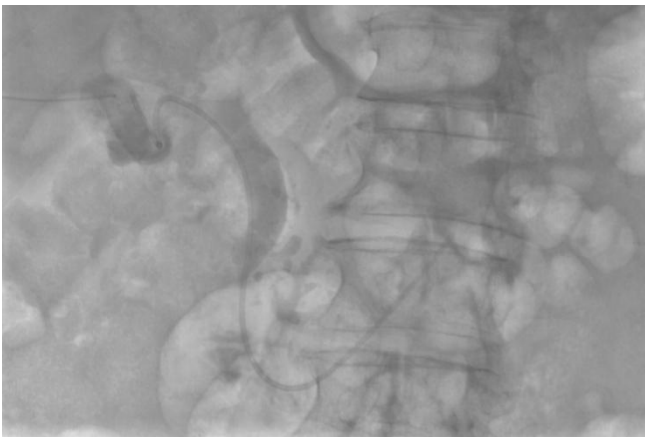
- It does not remove gallstones. Your stones stay in the gallbladder.
- It does not guarantee that gallbladder symptoms will not come back.
- It does not last forever. Plastic stents can on occasion block or move over time and may need to be exchanged.
- It does not replace gallbladder removal as the best option for long-term cure, but that option might not be safely available to you.



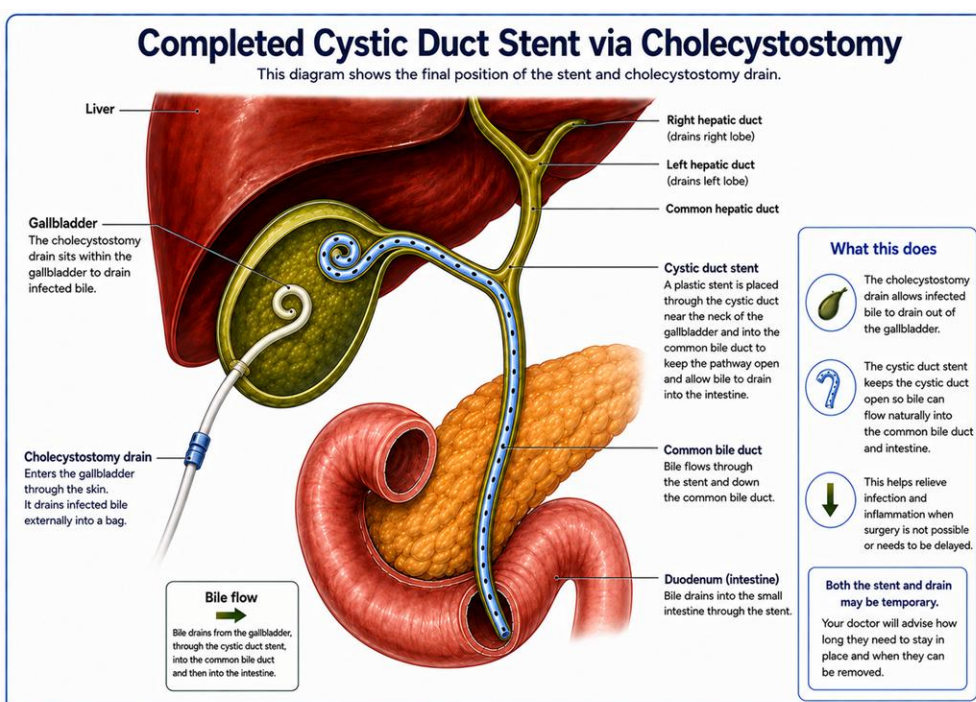
Stent pre-insertion.



Tubogram through the drain demonstrating anatomy.



Successful stent.



Why is a drain usually needed first?

Most patients have the stent placed in two stages. The first stage is the drain (cholecystostomy, a thin tube placed through the skin into the gallbladder). The second stage is the stent.

After the drain has been in place for a number of weeks, the channel through the skin and into the gallbladder slowly toughens up into a stable passage. This is called tract maturing. It usually takes around four to six weeks.

Once this channel has matured, the stent can be passed safely down it. Before that point, attempting to place a stent carries a much higher risk of bile leaking into the abdomen.

Can the drain always be placed?

Not always. A drain is placed by guiding a needle into the gallbladder under ultrasound. To do this safely, the gallbladder needs to be distended (stretched and full of bile). A small, empty gallbladder is too difficult a target and the risk of hitting nearby structures is too high.

The gallbladder usually becomes distended either because it is inflamed (which causes bile to build up), or because you have not eaten for a number of hours (which allows bile to collect). You may be asked to fast and rescanned later. In a small number of cases the drain cannot be placed safely, and your team will discuss other options.

Which pathway applies to me?

Pathway A (most patients): You already have a gallbladder drain. You skip straight to the stent once the tract has matured.

Pathway B (less common): You do not yet have a drain. A drain is usually placed first and left for around four to six weeks to mature, before the stent is placed.

Rarely, a stent may be placed directly without a mature drain tract. This is specialist practice and carries a different risk profile. Your team will explain it if it applies to you.

Benefits and how well it works

If the stent works, it may:

- Allow bile to drain internally through your own ducts.
- Allow the external drain and the bag to be removed.
- Reduce the chance of further gallbladder blockage or infection.
- Avoid the need for major surgery in patients for whom surgery is too risky.

The stent does not remove gallstones and does not guarantee that symptoms will not come back.

How well does it work?

Success is not always guaranteed. It depends on the shape of your ducts, the position of any stones, the level of inflammation, and whether a guide wire can safely pass through the cystic duct. Your radiologist and surgeon will give you a personal estimate.

If the procedure is not successful, you will keep your external drain, and your team will discuss other options with you.

What are the alternatives?

Keyhole removal of the gallbladder (laparoscopic cholecystectomy)

The standard treatment for gallbladder disease in people who are fit enough for an operation, but if the team are suggesting a cystic duct stent it is probably because you are not thought to be fit enough for it. If your fitness improves, this option may be reconsidered.

Continue with the external drain long-term

Some patients keep the drain and bag. This avoids further procedures but means living with a tube on the outside of the body, which can leak, block, or come out, as well as not being very comfortable for some people to live with long-term.

Antibiotics and watchful waiting

Antibiotics and pain medicine can help you feel better during a gallbladder problem. However, they do not fix a gallbladder blockage that keeps coming back or does not go away.

No further procedure, focusing on comfort and symptom control

If your overall health is very poor, the best approach may be to focus on comfort, symptom relief, and avoiding hospital procedures. Your team will talk this through with you.

Risks and uncertainty

Most patients have no serious complications. A minority have a minor problem such as bruising or short-lived pain. A smaller number have a problem that needs further treatment, such as bleeding, a bile leak, or infection. Serious complications are uncommon but possible. Your team will go through the risks that matter most for you.

Common risks

Risk	How often this happens	What this means
Pain or bruising at the site	Up to 1 in 5 cases	Usually mild and settles within a few days. Simple painkillers help.

Risk	How often this happens	What this means
Bleeding	About 1 to 3 in 100 cases	Usually minor. A small number need a transfusion or further procedure.
Infection	About 5 to 10 in 100 cases	Antibiotics are given to lower the risk. Tell us if you develop a fever after going home.
Bile leak	About 2 to 5 in 100 cases	Bile escaping outside the duct. This usually settles, but may need a further drain put in, which is an additional procedure.
Stent moving or blocking	About 5 to 15 in 100 cases	May need to be exchanged or repositioned in a similar procedure.

Less common risks

Risk	How often this happens	What this means
Damage to nearby organs	Less than 1 in 100 cases	For example, bowel, liver, or blood vessels. May need further treatment.
Reaction to x-ray contrast (a safe substance used in imaging tests to highlight organs, tissues, or blood vessels) or sedation	Less than 1 in 100 cases	Most reactions are mild. Tell us about any allergies.
Needing an unplanned operation	About 2 to 5 in 100 cases	If a complication cannot be managed by other means.

Rare but serious risks

Risk	How often this happens	What this means
Severe bleeding or sepsis	Less than 1 in 100 cases	Treated in hospital and may need intensive care.
Death from a complication of the procedure	Very rare in selected patients	Death caused directly by the procedure is very rare. However, many patients offered this procedure are frail or seriously unwell, so the overall risk from the underlying illness, infection, or further procedures is higher. Your team will discuss your personal risk.

Before your procedure

Before the stent is placed you may have:

- Blood tests.
- A review of your medicines, especially blood thinners; these include warfarin, direct oral anticoagulants (DOACs) such as apixaban, edoxaban, rivaroxaban or dabigatran, and antiplatelets such as clopidogrel, aspirin, prasugrel or ticagrelor. Do not stop any of these on your own; your team will tell you which to stop and when.
- Scans (ultrasound, CT, or MRI) to plan the procedure.

Eating and drinking

Do not eat any solid food for at least six hours before your procedure. You may drink clear water for up to two hours before. Your appointment letter will confirm your exact times. These fasting times matter for your safety, so please follow them carefully.

What to bring and going home

You will either go home on the same day or spend one night in hospital.

Please bring with you your appointment letter and a list of your medicines, glasses, hearing aids, dentures, etc.

Please wear loose clothing and bring something to read if you wish, plus an overnight bag if you need to stay.

If you have had sedation and go home the same day, you will need someone to stay with you overnight. Do not drive yourself home.

Consent

Before the procedure starts, a doctor will go through everything with you again and ask you to sign a consent form. You can ask any questions, and you can change your mind about the procedure.

During the procedure

In the Radiology department, you will be looked after by a radiologist, a radiographer, an anaesthetist, and a nurse.

Step by step:

- You will lie on an x-ray table. Sticky pads will be put on your chest to check your heart rate, and a cannula will be put in your arm.
- The skin on the right side of your abdomen will be cleaned and covered with sterile sheets.

- Local anaesthetic, with sedation (medicine to make you sleepy and relaxed) will be given by an anaesthetist through cannula (a small tube in a vein in your arm). A full general anaesthetic (where you are put to sleep) is rarely needed – the plan will be discussed with you on the day before the procedure. The anaesthetist will be present throughout your procedure. They will keep an eye on your breathing and blood pressure and increase the level of sedation if you need more.
- Using ultrasound and x-ray pictures, the radiologist passes instruments through your existing drain (or, less commonly, makes a small new path into the gallbladder).
- X-ray contrast is injected to show the gallbladder and ducts. A thin guide wire is passed through the cystic duct, and the stent is slid along the wire into position.
- A small dressing is put over the skin entry point.

After the procedure

In the recovery area and going home

Nurses will check your blood pressure, pulse, and dressing for the first few hours. You can usually eat and drink once you are fully awake. Most patients go home the same day; some stay one night.

If you have had sedation, for 24 hours afterwards you should not drive, operate machinery, drink alcohol, sign important documents, or be alone overnight.

What happens to the drain?

In some patients, the drain is removed during the same procedure.

In others, the drain is left in for a few days or weeks. It is then removed after a tubogram (an x-ray test where contrast is injected through the drain to check the stent is draining properly).

Your radiologist will tell you which plan applies to you.

The first few days at home

It is normal to have mild soreness around the skin entry point for three to five days, some bruising, and tiredness. Simple painkillers such as paracetamol are usually enough. Avoid ibuprofen unless your team has said it is safe to take.

Keep the dressing dry for 48 hours. After that you can shower but avoid baths and swimming for one week.

Eating, activity, and work

There is no special diet for the stent. However, your gallstones are still inside the gallbladder, and fatty or rich foods may still trigger gallstone-type symptoms in some people.

Build up activity over the first week. Avoid heavy lifting (more than around 5kg) for one week. Most people return to office work within a few days; heavier work may take one to two weeks.

Follow-up, the stent, and the future

What happens to the stent over time?

Plastic stents might not last forever. Over time, sludge and bile salts might build up inside the stent and can block it. These stents typically keep working for around three to six months before the risk of blockage rises, although this varies and some last longer.

Some stents shift position or pass on their own into the bowel. This is more common with shorter stents. If a stent passes harmlessly into the bowel, you may not notice anything; it will come out in your poo. After it has passed, the cystic duct may stay open, and bile may continue to drain normally; or symptoms may come back and a new stent (or another procedure) may be needed.

A blocked or moved stent may cause pain in the right upper abdomen, fever or shivering, yellow skin, or eyes, or just feeling unwell. The follow-up plan varies. In some patients the stent is exchanged at planned intervals before it blocks; in others, it is only exchanged if symptoms develop. Your team will tell you which plan applies to you.

Will I be able to have surgery later?

For some selected patients, the stent may be a step towards future gallbladder removal (cholecystectomy), although this is rare. Settling the inflammation with a stent can give your healthcare team an opportunity to look again at whether surgery is safe enough to consider, but more often than not it is achieved with the external tube that would have been placed before cystic duct stenting is considered.

In any case, surgery is not guaranteed. Whether you can have surgery later depends on your overall fitness, your other medical problems, your own preferences at the time, and whether the team judges the operation can be done safely.

Most patients who are offered a cystic duct stent are not considered to be fit for surgery now or in future. Therefore, the stent (with planned exchanges or repeat procedures if needed) is the long-term treatment. Your team will be honest with you about what is the most likely outcome in your case.

When to seek medical help

Contact the biliary specialist nurse or ring NHS 111 the same day if you have:

- A fever, shivers, or shaking.
- Yellow skin or yellow whites of the eyes (jaundice).
- Dark urine or pale stools.
- Redness, swelling, or pus around the skin entry point.
- Persistent vomiting or inability to keep fluids down.
- Increasing abdominal pain that is not improving.

Call 999 or go to your nearest Emergency Department straight away if you have:

- Severe abdominal pain that is not controlled by painkillers.
- Shortness of breath or chest pain.
- Vomiting blood or passing black, tarry stools.
- Confusion, drowsiness, or fainting.

Contact details

Biliary specialist nurse	07387 524970 (Monday to Friday, during normal working hours).
Ward 33, King's Mill Hospital	01623 622515, extension 2333.
Hospital switchboard	01623 622515 (ask for ward 33, or the biliary specialist nurse).
Outside of working hours	Call NHS 111 or go to your nearest Emergency Department.
In an emergency	Call 999.

Questions you may want to ask your healthcare team

- Why is this being recommended for me rather than surgery?
- What is my personal risk of complications?
- How long is the stent likely to last in my case?
- Will my drain be removed during the procedure, or kept in for longer?
- Will I need surgery in future, or is the stent the long-term plan?
- What happens if the stent blocks, moves, or passes on its own?
- Who do I contact if I am worried at home?

More information

For general information about gallstones and the options for treatment, ask your team for the NHS England gallstone decision making leaflet, plus you can look at the following websites:

- NHS website: www.nhs.uk/conditions/gallstones
- NICE guidance (Interventional Procedures Guidance HTG617): www.nice.org.uk
- British Society of Interventional Radiology patient information: www.bsir.org

Explanation of medical terms used in this leaflet

Abdomen	The part of the body between the chest and the hips.
Bile	A fluid made by the liver. It helps digest fat.
Cannula	A thin plastic tube placed into a vein, used to give fluids or medicine.
Cholecystectomy	Removal of the gallbladder, usually by keyhole surgery.
Cholecystitis	Inflammation or infection of the gallbladder.
Cholecystostomy	A drainage tube placed through the skin into the gallbladder.
Common bile duct	The main tube that carries bile from the liver to the bowel.
X-ray contrast	A liquid that shows up on x-ray pictures. It outlines the ducts.

Cystic duct	The narrow tube that joins the gallbladder to the common bile duct.
Distended	Stretched and full. The gallbladder needs to be distended to be a safe target for a needle.
Gallstones	Hard lumps that form inside the gallbladder.
Interventional radiologist	A doctor who uses imaging to guide treatments through small skin entries.
Jaundice	Yellowing of the skin or whites of the eyes.
NICE	National Institute for Health and Care Excellence. The body that reviews evidence for NHS treatments.
Sedation	Medicine that makes you sleepy and relaxed but not fully asleep.
Stent	A small tube placed inside the body to hold a passage open.
Tract maturing	The healing process by which a drain channel through the skin becomes a stable passage. It takes around four to six weeks.
Tubogram	An x-ray test where contrast is injected through an existing drain to check it is working.

Further sources of information

NHS Choices: www.nhs.uk/conditions

Our website: www.sfh-tr.nhs.uk

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222

Newark Hospital: 01636 685692

Email: sfh-tr.PET@nhs.net

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email sfh-tr.PET@nhs.net.

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you. External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them. If you require a full list of references (if relevant) for this leaflet, please email sfh-tr.patientinformation@nhs.net or telephone 01623 622515, extension 6927.

To be completed by the Communications office
 Leaflet code: PIL202606-01-CDS
 Created: June 2026 / Review Date: June 2028