Patient Information Leaflet

York and Scarborough Teaching Hospitals NHS Foundation Trust

Insertion of a Biliary Stent

Information for patients, relatives and carers

ⓘ For more information, please contact:

Vascular Imaging Unit, York
Tel: 01904 726065
York Hospital, Wigginton Road, York, YO31 8HE

Or

Radiology Nurses at Scarborough Hospital
Tel: 01723 342304
Scarborough Hospital, Woodlands Drive, Scarborough, YO12 6QL

About this leaflet

The doctor looking after you on the ward has asked us to insert a biliary stent to relieve the obstruction in your bile duct. This information leaflet is intended to answer any questions you may have and to help you to decide whether you wish to go ahead with the treatment.

What is a biliary stent?

A stent is a scaffold that keeps a tube open, in this case a bile duct that has become blocked by something (such as a stone, tumour, or scar).
The stent we use is a small flexible tube knitted out of metal thread, or alternatively a plastic stent (the latter is more likely in benign conditions such as gallstones or scar). This is placed across the blockage in your bile duct using x-ray guidance. The procedure takes place under local anaesthetic with or without sedation, in the x-ray department. Antibiotics are routinely given beforehand, and painkillers should also be on board to minimise your discomfort.

What are the benefits of a biliary stent insertion?

The stent serves to relieve the blockage or severe narrowing of the bile duct, to enable the normal flow of bile to your small bowel, aiding digestion of fats through a process called emulsification.

Some patients present with jaundice (yellowing of skin and eyes) because bile flow is blocked and bilirubin levels in the blood rise. Side effects of such bile obstruction and bilirubin rise include itching, nausea, and loss of appetite. The biliary stent should settle the obstruction over days to weeks, and most patients have excellent relief of their symptoms. You will be able to eat and drink normally after the procedure. The hope is that an external drain and drainage bag will no longer be necessary once the stent has done its job.

Are there any risks with this procedure?

The biliary stent is inserted through a tube placed into your liver or gallbladder through the skin. The main risks associated with this are pain, bleeding, bile leakage, trauma to local structures (e.g. liver, bowel, lung lining) and infection. These early complications can occur in up to 15 percent of patients but usually settle without any further treatment. Rarer complications include developing pancreatitis (inflammation of the pancreas, <1% of cases), which is a serious condition that usually requires a significant amount of time in hospital to recover. The mortality risk is difficult to quantify as this depends on the cause of the bile duct obstruction but is considered less than 2%.

Late complications usually occur later than six months after insertion and are due to blockage of the stent by new tumour growth (if cancer) or debris within the stent. In the case of plastic stents inserted for benign stricture or stone disease, usually bile continues to flow around the stent if it blocks internally, so revision procedures are rarely needed. Note there are bioresorbable stents available for benign strictures, which self-dissolve over time, and are used in patients with benign stricture/scarring without associated stones in the duct.

Placing a new stent can be performed where necessary, although this requires a further period of time in hospital.

Are there any alternatives?

Yes. One alternative is major surgery, but your doctor feels this is not appropriate. A stent can sometimes be inserted internally using a telescope (endoscopy) but in some patients this is not possible or safe.

The other alternative is to live with a permanent external drain, but this would divert a lot of the bile outside of the body and could impact on your digestion of fats. A dietician and community care management of the drain would be necessary considerations. Note some patients are very happy living with a permanent external drain, whereas others prefer not to for lifestyle or other reasons.

What happens before the insertion of a biliary stent?

Please continue to take all of your normal medication except aspirin, clopidogrel, warfarin and other blood thinners. The referring team will normally inform us of any medications you take, so we can make a safe plan in terms of which to omit. Pre procedure blood tests are also routine; to check you have normal parameters such as ability to clot, and haemoglobin levels to exclude anaemia. In some cases, patients need a blood or platelet transfusion before or even after the procedure.

You will not be able to eat or drink for four hours prior to the procedure. A needle will be inserted into a vein in your right arm, so we can give you stronger painkillers and/or sedation for the procedure.

Giving your consent for the procedure

Your doctor will see you and answer any questions you may have about the procedure. If you wish to see a member of the radiology nursing team, before you sign the consent form please ask the ward staff to telephone the vascular imaging unit on extension 6065 (York) or the radiology nurses on extension 2304 (Scarborough). You will then be asked to sign a consent form to give your permission for the procedure to go ahead.

What happens during the biliary stent insertion?

You will be taken to the vascular imaging unit for the procedure. The radiologist (a specialist doctor) will place the stent using x-ray guidance. An endoscopy, ultrasound or CT scan will have shown where the narrowing is. Before the procedure starts you will likely be sedated via a needle placed in the vein in your arm. You may be given some oxygen via a tube placed in your nose and a radiology nurse will monitor your pulse and blood pressure during the procedure.

The Radiologist will need to access your bile ducts either through an existing drain in the liver or gallbladder, or through a new small incision in the skin following local anaesthetic – through which a needle is guided into the bile ducts via the liver or gallbladder. We then pass a wire across the obstruction and into the bowel. The stent is subsequently placed across the narrowed part, guided by x-ray images. Sometimes a balloon is inflated to encourage opening of the stent or displacement of any debris into the bowel.

The procedure normally is completed in a single stage, however occasionally an external tube is placed to allow the bile to drain, with the stent placed on a separate occasion within a few days. A single stage procedure takes approximately 60 to 90 minutes in total.

What happens after the insertion of the biliary stent?

Before you go back to the ward the radiology nurse will make sure that you have recovered from the sedation. A minimum of 4 hours of recovery is needed, but we now routinely admit patients to maximise their safety and treat any potential complications in hospital. The nurses on the ward will monitor your pulse, temperature, and blood pressure for the 24 hours after the stent has been placed.

It is normal to have a small amount of bleeding and or bile leakage during and after the procedure and this may cause pain in your abdomen, back or right shoulder. You will be able to have pain relief for this, and the symptoms should soon settle. You may be on an intravenous drip for 24 hours after the procedure.

If any particularly worrisome side effects of the procedure develop, such as severe nausea, vomiting, abdominal pain, internal or external bleeding, then further imaging such as a CT scan may be performed for further investigation, which would help plan any necessary re-intervention. Fortunately, most patients do not develop major complications.

When can I start to eat and drink again?

Within 24 hours of the procedure, you should be able to eat and drink normally, but most patients can eat and drink once the sedation wears off.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Dr S Zakeri, Radiology, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726107.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net

An answer phone is available out of hours.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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