




You have been sent home with

HAVING A URETERIC STENT


What to expect and how to manage




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INTRODUCTION

In patients who have, or might have an obstruction (blockage) of the kidney, an internal drainage tube called a “stent” is commonly placed in the ureter, the tube between the kidney and the bladder. This is placed there in order to prevent of temporarily relieve the obstruction.



This information sheet has been given to you to help answer some of the questions you may have about having a ureteric stent inserted. If you have any questions or concerns, please, do not hesitate to speak to a doctor or a nurse caring for you.



THE URINARY SYSTEM AND URETERIC STENT

THE URINARY SYSTEM AND THE URETER

The kidneys produce urine. Normally there are two kidneys situated in the upper part of the abdomen, towards the back. The urine formed in the kidney is carried to the bladder by a fine muscular tube called a ureter. The urinary bladder acts as a reservoir for the urine and when it is full it is emptied via the urethra.

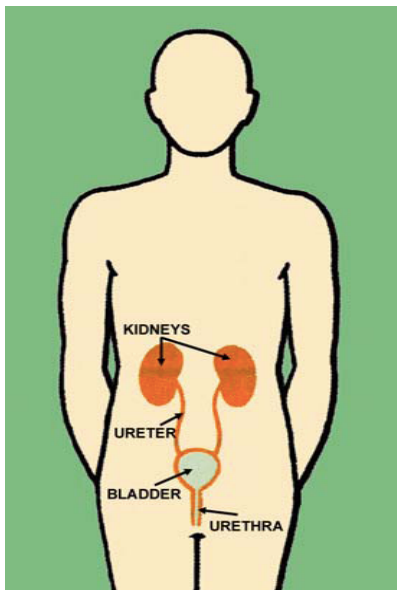


Figure 1: The urinary system

HOW DOES A KIDNEY BECOME OBSTRUCTED ?

Common causes of obstruction of the kidneys and ureter are:

- A kidney stone or its fragments moving into the ureter, either spontaneously, or occasionally following such treatment as shock wave therapy.

- Narrowing (stricture) of the ureter anywhere along its path. This can be due. scaring of wall of the ureter, narrowing of the area where the ureter leaves from the kidney (pelvi-uerteric junction)

-Temporarily, following an operation or after an instrument has been inserted into the ureter and kidneys.

-Occasionally, obstruction can occur because of diseases of the prostate or tumours of the urinary system or due to external compression to the ureter from masses in the abdomen.

WHAT ARE THE EFFECTS OF OBSTRUCTION?

Whenever there is an obstruction, pressure builds up behind the kidney. Due to high pressure, the function of the kidneys starts to suffer over a period of weeks.

The obstruction can also cause stagnation of the urine, which can lead to infection and further damage to the kidneys. It is, therefore, important to relieve or prevent obstruction of the kidney.

TEMPORARY OBSTRUCTION OF THE KIDNEY

It is not always possible to identify what has caused an obstruction and to treat this immediately. It is therefore essential to relieve the obstruction on a temporary basis, before treatment is carried out.

Also, following an operation on the ureters, it takes time to heal and a temporary measure to prevent obstruction becomes essential. This is commonly achieved by inserting a ureteric stent to make a channel for the urine to pass and allow the kidney to drain.

WHAT IS A URETERIC STENT?

A ureteric stent is a thin hollow plastic tube inserted into your kidney. It allows urine to drain from your kidney into your bladder when you have a blockage in your ureter (the narrow, muscular tube that connects your kidney to your bladder). The blockage is most commonly caused by a kidney stone but could be caused by a growth.

WHAT ARE THE BENEFITS OF HAVING A URETERIC STENT?

The blockage in your ureter will be relieved, allowing urine to drain from your kidney into your bladder. Without the stent, the blockage may cause the kidney to work less well and in some cases, stop the kidney from working altogether. The procedure is very safe and you will recover quickly. Having a stent will help prevent infection and permanent damage to your kidney.

ARE THERE ANY RISKS ASSOCIATED WITH HAVING A URETERIC STENT?

- The stent may irritate your bladder causing you to feel a need to pass urine frequently

- You may see blood in your urine on some occasions this is made worse by physical activity such as going to the gym, walking, hovering or carrying heavy bags. Even if your urine has a lot of blood

in it, as long as you are passing urine this is fine. The blood in the urine may be cleared by drinking the recommend amount of daily fluids and will decrease as the days following the surgery pass.

-It is common to feel pain in your back (on the side of your body where the stent is) when passing urine. For most patients the symptoms are minor and can be tolerated.

-Occasionally the stent may developed a crystal coating on its surface. Usually this is not a significant problem but is the reason that we try not to leave the stent in or any longer than is needed.

-Very occasionally a stent may get displaced, usually slipping towards the bladder, and sometimes it may even fall out. This is very unusual, if this happens, you should contact the hospital on the numbers on the back page of this leaflet, or your GP.

-Having a stent, along with an underlying kidney problem, makes it more likely that you could develop a urinary tract infection. Some of the symptoms that you may experience should you get a urinary tract infection include a raised temperature, increased pain or discomfort in the kidney or bladder area, a burning sensation while passing urine and generally feeling unwell. Urinary tract infections require treatment with antibiotics, which your GP can prescribe for you.

-The operation is usually performed under general anaesthetic. This means that you are asleep during the procedure, so you do not feel any pain. There are risks associated with having a general anaesthetics, but



they are small. Occasionally other anaesthetics are used such as spinal anaesthetic (where a needle is put in your back to numb you from the waist down) your anaesthetist will discuss the type of anaesthetic you need with you.

ARE THERE ANY ALTERNATIVES?

The alternative to having a stent inserted is having what is called a “nephrostomy tube”, a tube, which is put into your kidney and then drains urine to the outside. However, this involves carrying a urine collection bag attached to your back. This procedure is done under x-ray guidance to make sure the tube is put in the right place. You will be awake during the procedure, although you will be given a sedative which makes you feel drowsy and relaxed, as well as something to take away the pain. This is not a long-term solution and you may eventually have to have a stent inserted. If you would like more information, please talk to your doctor.

WHAT DO I NEED TO DO TO PREPARE FOR THE PROCEDURE?

You will have blood tests and a physical examination to make sure you are fit for the procedure. You must not:

Eat anything for six hours before the procedure

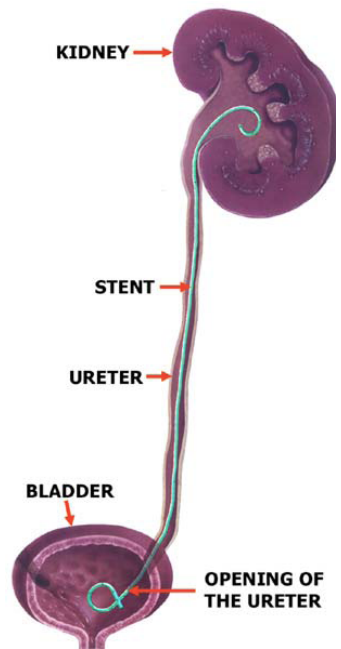
Drink anything for four hours before the procedure

If you need to take blood pressure tablets, you can do with small sips of water.

We want you to involve in all the decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This confirms that you agree to have the procedure and understand that it involves.

HOW IS THE URETERIC STENT INSERTED?

Usually a stent is placed under a general anaesthetic using a special telescope (cystoscope) which is passed through the urethra into the bladder. The stent are the placed in the ureter and kidney via the opening of the ureter in the bladder. The stent may be inserted as an additional part of an operation of the ureter and kidney (e.g. ureteroscopy). The position of a stent is checked by taking a x-ray. The procedure usually takes approximately 10-20 minutes.



WHAT HAPPENS AFTER THE OPERATION?

Although you will be awake after the procedure is finished, you may feel sick of be sick for up to 24 hours after the operation. This is

an effect of the anaesthetic. If this happens, we will give you some anti-sickness medication. You will be encouraged to start drinking at the earliest opportunity, as long as you are not feeling sick. You may eat a light meal as soon as you feel able to once on the ward. You should be eating and drinking normally in the first 24 hours.

The anaesthetic may make you clumsy, slow and forgetful for about 24 hours. Although you may feel fine, your reasoning, reflexes, judgment, coordination and skill can be affected for 24 hours after your surgery. If you are discharged from the hospital less than 24 hours from your surgery, please rest when you get home.

For 24 hours after your surgery for your safety, please **DO NOT:**

- drive any vehicle, including a bicycle
- operate any machinery
- Attempt to cook, use sharp utensils or pour boiling liquids
- drink alcohol
- make any important decisions or sign any contracts.

It is quite normal for your bowels not to open for about a day after the procedure. If your bowels have not opened after two days or you feel uncomfortable, ask the nursing staff for advice.

You may have a catheter draining your bladder for a while, which may be monitored by the ward nurses. Your urine may be blood stained for a day or two. This is normal. The catheter will be taken out once your mobility returns and the urine is clear.

WHEN CAN I GO HOME?

You will go home within 24 hours, if you are comfortable with regular pain medication and have no signs of infection you can go home next morning. If your pain is difficult to manage you will stay an extra night to allow time to manage the pain effectively and to be monitored. Those who do not have difficulties managing the pain with prescribed medication and have had a stent put in previously may even go home the evening of the procedure on the doctor's instruction. You will be given some pain medication that you can take at home when in pain; the prescription may be repeated by your GP if required. Before you leave, the nurse will check that your pain is well managed, that you have no signs of infection and that the blood in your urine is not a large amount. It is encouraged that you arrange for a responsible adult to take you home when you are discharged.



HOW DOES A STENT STAY IN PLACE?

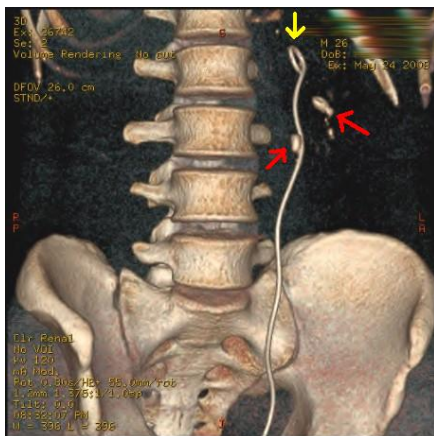
The stents are designed to stay in the urinary system by having both the end coiled. The top end coils in the kidney and the lower end coils inside the bladder to prevent its displacement. The stents are flexible enough to withstand various body movements.

HOW LONG WILL THE STENT STAY IN THE BODY?

The stent has be kept in place as long as necessary, i.e. until the obstruction is relieved. This depends on the cause of obstruction and the nature of its treatment.

In the majority of patients, the stents are required for only a short duration, from a few weeks to a few months. However, a stent in the right position can stay in for up to three months without the need to replace it. When the underlying problem is not a kidney stone, the stent can stay even longer. There are special stents, which may be left in for much longer time.

Your urologist will tell you how long he expects your stent to remain in place.



HOW IS A STENT REMOVED?

This is a short procedure and consists of removal of the stent using a flexible cystoscope, usually under local anaesthesia.

LIVING WITH A URETERIC STENT

INTRODUCTION

Ureteric stents are designed to allow people to lead as normal a life as possible. However, they may not be without side effects. In placing a stent, there is a balance between its advantages in relieving the obstruction and any possible side effects. Most side effects are not a danger to your health or your kidneys, although they can be a nuisance.

HOW WILL I FEEL, ONCE I HAVE A STENT?

For most of the time, you will not be able to feel anything. The majority of people find that they have a slight discomfort when passing urine. Each person has a different tolerance level of discomfort. As your bladder decreases in size when you pass urine, the lower end of the stent may rub against the sensitive bladder wall lining. You may feel that you need to pass urine more than usual or experience urgency in passing urine.

Many of these side effects (especially blood in urine) can be relieved by maintaining a good fluid intake of around 1.5 to 2 litres of fluid a day. Pain and discomfort in the pelvis and kidney area may be worse at the end of passing urine but it is important to maintain the recommended amount of fluids.

The side effects usually decrease in the days and weeks following insertion of stent.

WHAT ARE THE POSSIBLE EFFECTS ASSOCIATED WITH A STENT?

You are likely to feel very tired and need to rest after your procedure; however, you should be able to return to your usual level of activity very quickly.

Many patients do not experience problems with the stents. In the majority of the patients experiencing side effects they are minor and tolerable. However sometimes they can be moderate to severe in nature.

Commonly noted side effects are:

-The majority of patients with a stent in place will be aware of its presence most of the time

-Urinary symptoms

There might be:

An increased frequency of passing urine

The need to rush to pass urine (urgency)

A small amount of blood in the urine. This may be caused by irritation in your bladder. If the bleeding becomes heavier and bright red/red wine in colour, contact your GP or the hospital. The blood in the urine may be cleared by drinking the recommended amount of daily fluids and will decrease as the days following the surgery pass.

The stents can also result in a sensation of incomplete emptying of the bladder.

Very occasionally, especially in women, there is a slight risk of episodes of incontinence.

These effects are possibly due to the presence of the stent inside the bladder causing mechanical irritation. These effects should disappear when the stent is removed.

-Discomfort or pain

Stents can cause discomfort or pain, commonly in the bladder and kidney (loin) area, but sometimes in other areas such as the groin, urethra and genitals. The discomfort or pain may be more noticeable after physical activities and after passing urine.

Sometimes are associated with pain in the back when urination, this is related to back flow of the urine through the ureter till the kidney due to the presence of the stent, pain decreases when urination is with no straining, letting the urine flows.

-It is highly unlikely that the stent fall out, very rarely it does become **dislodged** from its position. If you experience discomfort, colic pain (pain in your intestines) or find it more difficult to pass urine that you did before, it may mean that the stent has become dislodged. Contact your GP or the hospital or go to your nearest Accident and Emergency Department.

‘If you develop a temperature above 38 degrees, please call your GP or one of the numbers listed in the back page.

DURATION OF SIDE EFFECTS ASSOCIATED WITH A STENT- CAN THEY IMPROVE?

There is some evidence that some of the symptoms such as pain while passing urine and blood in the urine, may improve with time. However, this remains unpredictable. It has been reported that around 20-70% of patients with stents experience one or more of these side effects.

CAN THE SIDE EFFECTS INTERFERE WITHMY DAY TO DAY LIFE?

The stents are not expected to cause much disruption to your normal daily life. However, you may experience some side effects that can cause some problems, either directly or indirectly.

Daily activities

Physical activities and sports:

You can carry on with various physical activities while the stent is in place provided the underlying kidney condition ant your health allows to do it. However, you may experience some discomfort in the kidney area and passing of blood in your urine, especially if sports and strenuous physical activities are involved. Sometimes side effects associated with a stent can make you feel more tired than normal.

Work activities

You can continue to work normally with the stent inside your body. However, if the work involves lot of physical activities, you may experience more discomfort. Occasionally side effects, such as urinary symptoms and pain associated with the stent, may make you feel tired. If the stent causes significant problems, you can discuss it with your manager and colleagues so that possible temporary adjustments can be made at your work place.

Avoid manual work if it involves carrying, digging, climbing or building until you are given permission to do so by your consultant. If you need a sickness certificate, the hospital will issue this for you

Social life and interactions:

The presence of a stent should not affect this in a significant way. In case you get urinary symptoms such as increased frequency and urgency, you may need to use public toilets more frequently while taking part in outdoor activities. Occasionally you may need a little more help from family members or colleagues, because of any pain or tiredness you may feel.

Travel and holidays:

It is possible to travel with a stent in place, provided the underlying kidney condition and your general health allows this. However, presence of significant side effects associated with the stent may make

travel and holidays less enjoyable. Also there is a small possibility that you may require additional medical help while the stent is in place.

Sex:

There are no restrictions on your sex life due to the presence of a stent. Few patients experience discomfort during sexual activities. Occasionally the side effects associated with the stent may have an effect on sexual desire.

CAN A STENT GET DISPLACED? WHAT OTHER COMPLICATIONS ARE POSSIBLE?

Occasionally a stent may develop a crystal coating on its surface although this is not a significant problem. Very occasionally a stent may get displaced, usually slipping towards the bladder, and may even fall out.

If this happens, you should contact the hospital or your GP.

IMPORTANT

If you have not been given a date to come back to change or remove the stent *within three months* you should contact the hospital on one of the numbers listed at the end of this leaflet. If the stent is not removed within three months it can increase your risk of infection and it can be more difficult to remove.

IS THERE A POSSIBILITY OF A URINARY TRACT INFECTION?

The presence of a stent, along with the underlying kidney problem, makes it more likely that you could get a urinary tract infection. Some of the symptoms that you may experience if you get a urinary tract infection are raised temperature, increased pain or discomfort in the kidney or bladder area, a burning sensation while passing urine and feeling unwell. This usually requires treatment.

WHAT CARE DO I NEED TO TAKE?

-It is essential that you drink at least 1 ½ to 2 litres of fluids, mainly water, a day. This will help you to cut down the risk of getting an infection and will reduce the amount of blood in the urine. It will also help in the treatment of the stones.

-If you experience bothersome pain you can take painkillers for relief, on the advice of a doctor.

-If you have frequency and intolerance to the stent check if you have an infection. If there is an infection needs to be treated. If there is no infection, the symptoms could be related to the constant irritability of having a foreign body into the bladder. Ask your doctor for advice, there are some treatments that can improve your symptoms.

-If you are on dissolution therapy to dissolve the uric acid stones, be sure that you fulfill the treatment.



WILL YOU HAVE ANY FOLLOW-UP APPOINTMENTS?

Depending on your individual circumstances you will have a follow up appointment six to eight weeks after your procedure or just an appointment to remove or change the stent about three months after insertion. You will have x-rays of your kidney and bladder taken on that day. Your consultant and his team will give more information about further appointments.

When you have a stent could be a temporary measure or a permanent one.

Permanent usually is related to a chronic obstruction as a cancer or stricture that needs to have the stent permanently to preserve the patency of the ureter to drain the urine from the kidney. You need an appointment to replace the stent, in 3, 6 or 12 months depending of the type of stent inserted.

Temporary stents usually are related to stones, they need to be in place till the treatment of the stone. There are one type of stone, with calcium that needs to be treated invasively, with an operation to fragment and remove the stone. If you have this type of stone you need an appointment for the treatment.

There is another type of stone, the ones that can be dissolved, composed of uric acid. If you have this type of stone, you need to be on dissolution therapy with Proguard and Sodibic and you need a CT SCAN before the clinic to check if the stone has been dissolved


WHO CAN I CONTACT FOR MORE INFORMATION?

If you have any questions or concerns about having a ureteric stent, please, contact the Urology Department on the phones at the back of this leaflet.

WHEN SHOULD I CALL FOR HELP?

YOU SHOULD CONTACT A DOCTOR OR A HOSPITAL:


- Constant and unbearable pain associated with the stent
- If you have symptoms of urinary tract infection as mentioned above (e.g. a raised temperature, pain during passing urine and feeling unwell)
- The stent gets dislodged or falls out.
- If you notice a significant change in the amount of blood in your urine or fresh blood in your urine.
- Difficulty passing urine.




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