



Bladder & Bowel
Community

CATHETER CARE

A guide for users of indwelling catheters
and their carers



www.bladderandbowel.org

INTRODUCTION

Catheterisation of the bladder has been performed since time immemorial to drain urine from the bladder when it fails to empty. The bladder acts as a temporary reservoir for urine on its passage out of the body through the urethra. About 1500 ml of urine a day are produced, containing soluble waste products filtered by the kidneys from the bloodstream. With a limited capacity of 300 – 500 ml, the bladder evacuates its contents intermittently about 6 – 10 times in 24 hours. This cyclical filling and emptying of the bladder demands perfect paradoxical coordination between bladder and urethra; as the bladder relaxes to accommodate the increasing volume of urine so the urethra contracts to prevent leakage and vice versa when the bladder empties. The control mechanism is masterminded by the network of nerves that pass between bladder and brain via the spinal cord, ensuring the bladder not only evacuates its contents completely at each void but also at a convenient time and in an appropriate place. This normal function of the bladder and urethra, collectively termed the lower urinary tract, is vital to health but can readily be disturbed by disease or injury to any of its structures.

Failure to empty can lead to damaging overdistension of the bladder and back pressure on the kidneys. Stagnant urine becomes infected and in a damaged bladder this can readily lead to serious even life-threatening consequences for the patient. Failure to store presents distressing and humiliating incontinence not only causing many older people to seek residential care but also raising the risk of skin maceration and ulceration. Monitoring urinary output in the unconscious patient whether under

anaesthetic or coma provides the clinician with vital evidence about their condition. Under any of these circumstances drainage of the bladder to collect the urine becomes a vital aspect of patient care.

The modern catheter consists of a thin, flexible hollow tube made of silicone or of latex which will normally be coated. A wide variety of polymer coatings have been introduced in recent years to reduce friction by use of hydrogels which can provide a hydrophilic slippery surface and antimicrobials such as silver or antibiotics to counter the risk of urinary tract infections.

Two main types of urinary catheter are manufactured either for single-use or for continuous indwelling drainage. The single-use catheter is selected for intermittent catheterisation, passing the catheter through the urethra into the bladder to drain the urine and then it is removed. For those able to undertake the procedure, this has become the recommended way of draining the bladder. Many people now perform Intermittent Self Catheterisation (ISC) or Clean Intermittent Self Catheterisation (CISC) as it is sometimes termed routinely every day on themselves. For others this is not an appropriate procedure and an indwelling catheter is used for continuous drainage. The indwelling catheter, designed by Dr Foley in 1937 is retained in the bladder by a balloon which can be inflated and deflated. Short-term (less than 30 days) or long-term (more than 30 days) drainage can be maintained but the end of the catheter should either be connected to a catheter valve, which can be opened and closed, or to a urine collection bag to create what is termed closed drainage to reduce the risk of bacterial infection.

Urethral catheterisation is the usual route selected when short-term drainage of the bladder is anticipated. Suprapubic catheterisation provides an alternative approach which involves a short operation, often performed under local anaesthetic, to form an artificial track directly into the bladder through the lower abdomen. This is the preferred route for patients requiring long-term drainage of the bladder, avoiding injury to the urethra and enabling the patient to remain sexually active.

Short-term catheter drainage of the bladder is frequently performed for patients undergoing surgical procedures or for those unable to pass urine because of obstruction to the urethra such as men with an enlarged prostate which compresses and closes the urethra. A catheter may be required to introduce therapeutic drugs or to record bladder pressures.

Long-term catheter drainage of the bladder is considered only as a last resort because of the risk of complications from catheter-associated urinary tract infections. Patients treated in this way form a heterogeneous group which includes those with neurological conditions that prevent the bladder from emptying. This group includes people with spinal cord injuries, multiple sclerosis or stroke, those with intractable urinary incontinence or chronic debilitating illnesses which restrict their mobility and ability to use a commode or toilet and finally those who are unfit to undergo surgery.

Passage of a urinary catheter to drain and collect urine from the bladder can resolve a wide range of medical problems and hence its judicious application plays a pivotal role in patient management.

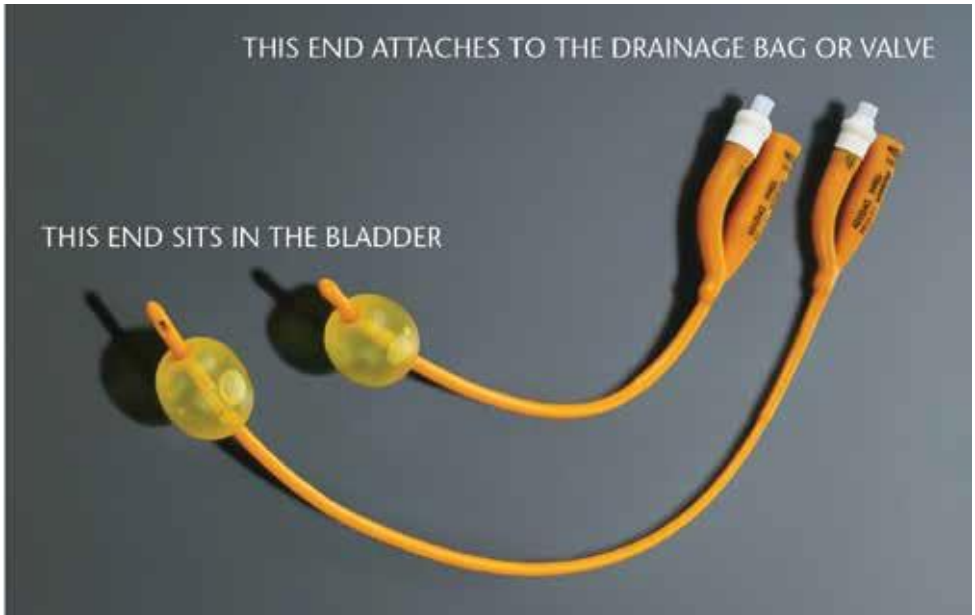
Roger Feneley MChir, FRCS, DSc (hc)

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WHAT IS A CATHETER?

A catheter is a soft hollow tube, which is passed into the bladder to drain urine. Catheters are sometimes necessary for people, who for a variety of reasons, cannot empty their bladder in the usual way, i.e. passing urine into a toilet or urinal.



Indwelling catheters are usually required short term for a number of weeks or months when continuous bladder drainage is needed, but occasionally they are required for long term use *.

Catheters are manufactured in a variety of materials, which mean they can be left in place for many weeks.

Once inserted a small balloon device is inflated, which prevents the catheter from falling out. On no account must you try to remove the catheter without the balloon being fully deflated. If you have a problem with your catheter seek help immediately.

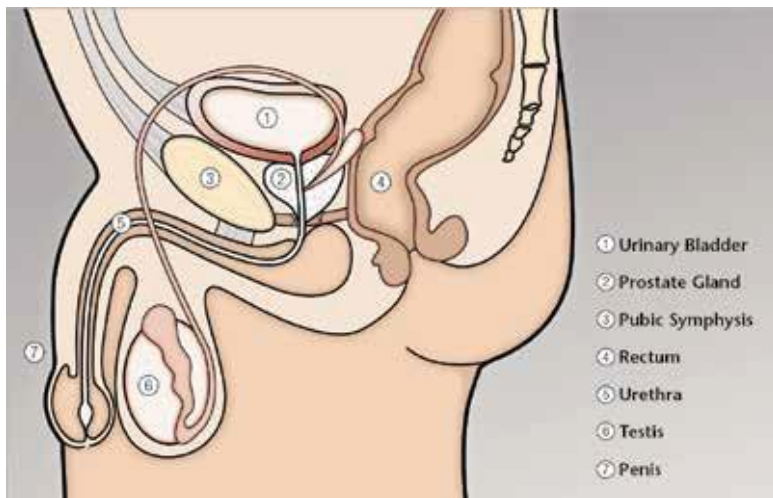
Never try to remove your catheter yourself unless you have been taught to do so by a qualified Healthcare Professional.

* Reference: Getliffe and Dolman, 2003 / Pellowe et al, 2004. Pratt et al, 2001

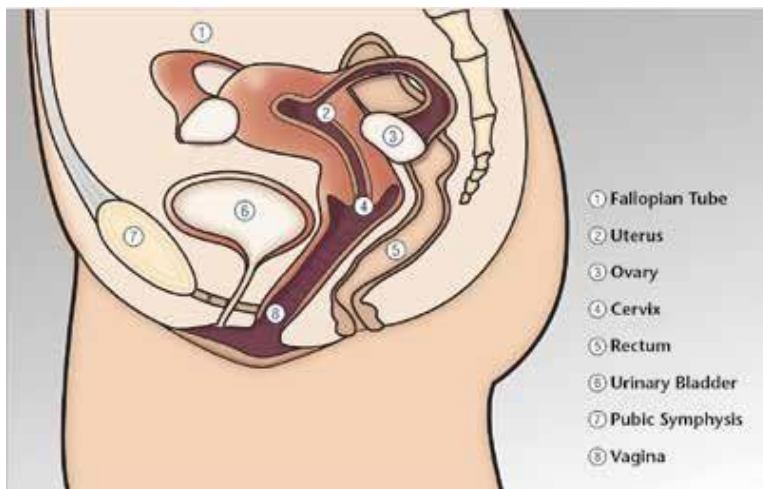
MALE & FEMALE LOWER URINARY TRACT

The lower urinary tract is the term used to describe the bladder and urethra, whereas the upper urinary tract refers to the kidneys and ureters.

MALE LOWER URINARY TRACT



FEMALE LOWER URINARY TRACT



HOW DOES A CATHETER WORK?

A catheter drains urine from the bladder into a drainage bag which may be supported at thigh, or calf level. The leg drainage bag requires changing every 5 to 7 days depending on manufacturers instructions.

A Belly Bag or a catheter valve may be recommended. Your District Nurse or Continence Advisor will advise you on which type may be appropriate for your needs.



If you do use a leg drainage bag then it requires emptying when it is half to three quarters full. Always ensure it does not pull on the catheter.

The bags are usually of 350ml, 500ml, 750ml or 1litre capacity for daytime use (depending on manufacturer). At night an extra 2 litre bag can be fitted easily to the day leg bag to increase the available capacity*. These larger night bags mean you don't have to get up in the night to empty the bag. They should be supported on a catheter drainage bag stand.

Remember the majority of your catheter equipment is available on prescription.

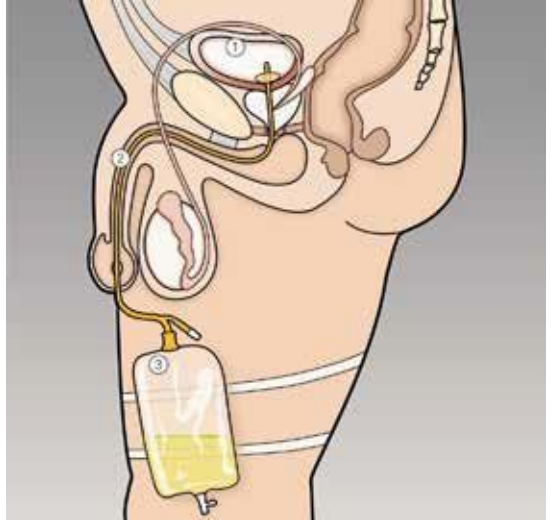
* Reference: (Robinson, J. 2006) and Pomfret I. 1996)

THE CATHETER IN SITU

An indwelling urethral catheter is passed through the urethra (the tube through which urine passes). This is the usual method of draining urine from the bladder when short term drainage is required (usually less than 30 days).

If you are sexually active it may be possible to be taught to remove your indwelling urethral catheter prior to intercourse and insert a new one afterwards. You may wish to discuss this with your partner. The District Nurse or Continence Advisor will advise you so don't be embarrassed to discuss this

MALE WITH CATHETER IN SITU



1. Bladder with catheter
2. Catheter
3. Urine leg bag with supporting straps

FEMALE WITH CATHETER IN SITU



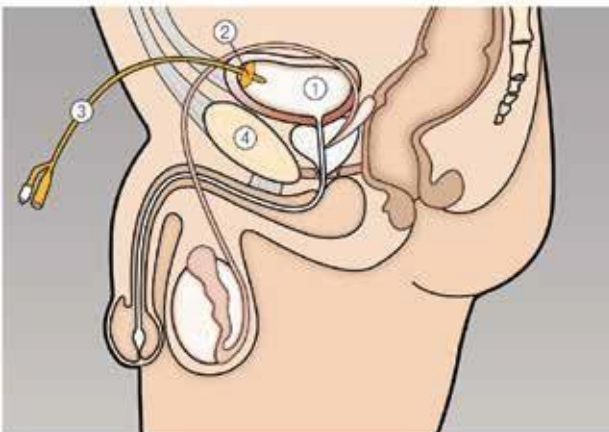
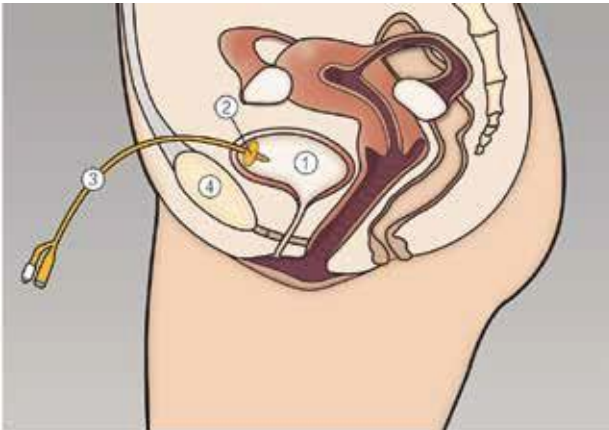
1. Bladder with catheter
2. Catheter
3. Urine leg bag with supporting straps

SUPRAPUBIC CATHETERS

In some cases when long term catheterisation is needed (longer than 30 days), the preferred method of drainage is via a suprapubic catheter. This method involves a small operation to form an artificial track directly into the bladder and the catheter is inserted through the lower abdominal wall directly below the belly button. Both men and women can have this type of catheter.

This type of catheter is generally administered when the urethral route cannot be used or if a person is still sexually active. It also reduces the risks of complications from catheter associated urinary tract infections which are more commonly associated with urethral indwelling catheters.

SUPRAPUBIC CATHETER INSERTION



1. Bladder
2. Retention Balloon
3. Catheter
4. Pubic Symphysis

SUPRAPUBIC CATHETER INSERTION (Cont).

A Suprapubic catheter is normally inserted whilst in hospital and may require an overnight stay, however the routine changes to the catheter can be done at home. Many District Nurses and Continence Advisors are well practiced in this procedure.

Some people prefer to cover the site with a dry dressing but this is only necessary for the initial few weeks after insertion or if there is leakage or exudate. The area needs to be kept clean by daily bathing or whilst showering, or by cleansing with soap and water and drying well afterwards.

Leg bags and catheter valves can be used by those assessed for suitability but some users of suprapubic catheters may find the Belly Bag more useful. These are available on prescription, see your Healthcare Professional for information.



SIX STEP HANDWASHING GUIDE

It is essential that the highest standards of hygiene are maintained at all times. You must wash your hands prior to handling your catheter or drainage bag.

Use an un-perfumed soap from a dispenser. Whatever the product used, the hand washing technique is very important to ensure effective results in preventing the spread of infection.

1. Wash palms of hands.



2. Wash between fingers at back of hands.



3. Wash between fingers palm to palm.



4. Wash palm area.



5. Pay particular attention to thumb area and thumb joint.

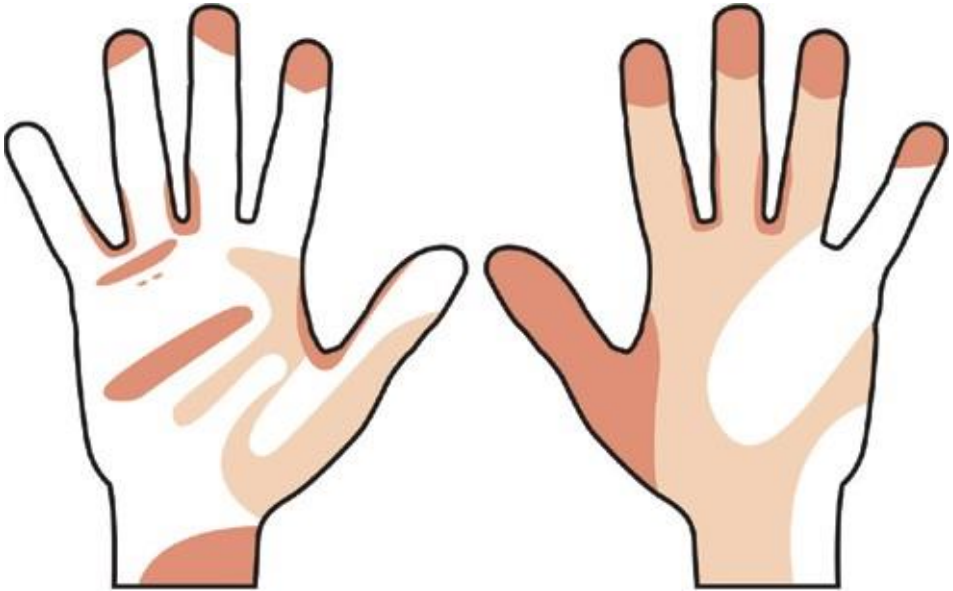


6. Wash finger tips paying particular attention to nails and dry hands well with clean disposable towel discarding correctly.






MOST COMMONLY MISSED AREAS

It is important to pay particular attention to the following areas which have been shown to be the most commonly missed following hand washing.



Reference (Images): *Taylor L (1978)*

-  LEAST FREQUENTLY MISSED
-  LESS FREQUENTLY MISSED
-  MOST FREQUENTLY MISSED

IMPORTANT POINTS

- Hand washing is the simplest and easiest way of preventing the spread of infection to yourself and other people.
- Thorough rinsing under running water is an important part of the procedure. Finally, dry the hands thoroughly using one paper towel for each hand - this also helps to prevent soreness.

ATTACHING NIGHT DRAINAGE BAG

If someone is doing this for you, they must wear disposable gloves.

1. Wash hands, put on gloves.
2. Remove protective cap from night drainage bag.
3. Insert night bag connector firmly into leg bag outlet tube. If using a catheter valve, the night drainage bags connected directly to the valve must always be single use and sterile.
4. Remove leg straps or bag support device to allow free drainage.
5. Open tap between leg bag or valve, and appropriate night drainage bag.
6. Place night drainage bag on a supporting stand so the bag is positioned lower than the bladder to aid drainage.
7. Never let the catheter be pulled by the drainage bags.

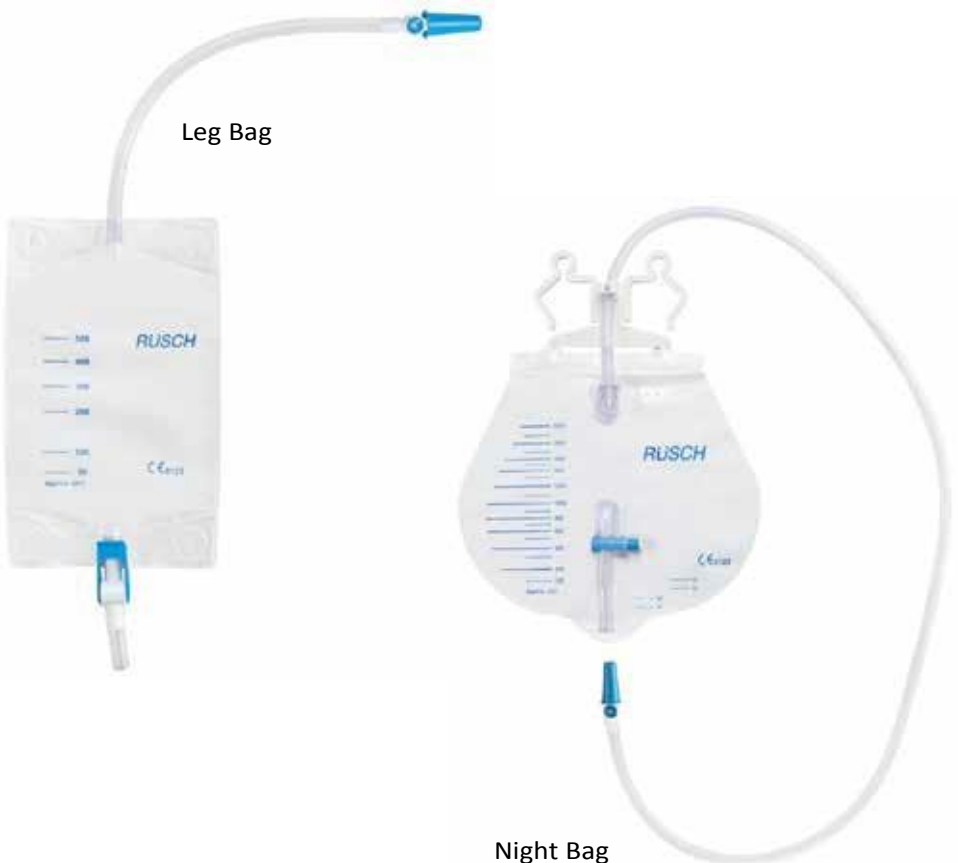


DISCONNECTING NIGHT DRAINAGE BAG

If someone is doing this for you, they must wear disposable gloves.

1. Wash hands, put on gloves.
2. Close tap on leg bag or valve.
3. Disconnect night drainage bag from leg bag or valve if worn.
4. Empty urine from bag and discard as instructed by your Healthcare Professional (See p.12).

Reference: *Getliffe and Dolman, 2003*



WHEN TO CALL A HEALTHCARE PROFESSIONAL

If your Healthcare Professional has given you instructions about when to notify him or her, be sure to follow those instructions. Call your Healthcare Professional if:

- No urine or very little urine is flowing into the collection bag and you feel your bladder is full.
- You have new pain in your abdomen, pelvis, legs, or back.
- Your urine has changed colour, is very cloudy, looks bloody, or has large blood clots in it.
- The insertion site becomes very irritated, swollen, red, or tender.
- Your urine has a foul odour (maybe a fishy smell).
- Urine is leaking from the insertion site.
- You have a fever.
- You develop nausea, vomiting or feel unwell.

Do not wait until late in the afternoon to call a Healthcare Professional.

If you have a problem contact someone immediately.

DISPOSAL OF EQUIPMENT

Your Healthcare Professional will advise you as to the correct disposal of urine bags, there are local policies which differ in many areas. Usually they are emptied, wrapped in several sheets of newspaper or sealed in a plastic bag and placed in the household rubbish dustbin.

The bags should not be burned on an open fire or electric incinerator.

IMPORTANT POINTS TO REMEMBER WHEN YOU HAVE A CATHETER

- Drink plenty of fluids. At least 12 cups (4 pints) per 24 hours. This will dilute your urine and possibly reduce the risk of infection. It will also help flush out any debris in your bladder. (See Fluid Matrix table on p.16 to indicate how much fluid you should drink for your weight).
- Cranberry Juice can have a beneficial effect in cutting down the rate of infection although research is still ongoing. It is best taken in small doses throughout the day but no more than two large glasses. **Do not take Cranberry Juice if you are taking Warfarin tablets or any other anticoagulant*.**
- Keep your leg and night bag below the level of the bladder to prevent the back flow of urine.
- Avoid disconnecting the leg bag unnecessarily or touching the end of the connector as this can lead to infection.
- Do not use oil based creams or talcum powder around the catheter area.
- Try to avoid constipation as this can interfere with catheter function.
- Movement such as a little exercise can often get rid of any debris such as old tissue cells in your bladder.
- Hygiene is vitally important, always wash the area around where the catheter enters your body at least once per day with soap and water to remove any encrustation or debris which may have dried to your catheter.

* Reference: (Suvarna et al. 2003)

TAKING CARE OF YOURSELF

- Drink plenty of fluids and take regular exercise, but avoid anything too vigorous, ensure your catheter is well supported before any exercise.
- It is recommended that 5 pieces of fruit or vegetables are eaten per day to promote health and maintain a healthy bowel.



GOING ON HOLIDAY

- Make sure you have a spare catheter and plenty of catheter valves and/or drainage bags to take with you.
- It is a good idea to pack some of your products and equipment in a bag to take on the plane as well as in your suitcase; in case your suitcase gets lost.
- Contact B&BC for more information on travelling with confidence, including a fact sheet of helpful advice and tips.

DEALING WITH CATHETER PROBLEMS

Occasionally people may experience problems with their catheters or accessories and the advice below should help. In all cases remember that good fluid intake is essential and often problems can be sorted simply by increasing intake (please see Fluid Matrix on page 16).

Poor drainage or non-drainage of urine:

- Check the catheter tubing is not kinked or twisted
- Check the drainage bag is properly connected and doesn't need emptying
- Ensure the leg or night bag is below the level of your bladder
- Make sure you're drinking enough fluids
- Walking encourages better drainage and may dislodge any debris in the catheter

Excess leakage of urine around the catheter:

- A small amount of leakage may occasionally occur as there is a gap between the body (urethra) and the catheter
- Leakage could be the result of a bladder spasm which can sometimes occur when you first have a catheter fitted but should pass within 24 – 48 hours
- Provided your catheter is draining correctly, leakage is not an emergency, however it is advisable to mention this to your health professional

Discomfort or pain:

- Check that your drainage bag is not pulling on your catheter and that it is adequately supported
- Pain in your lower abdomen or back (with or without fever) could indicate a urinary tract infection and you should seek advice from your GP

Blood in you urine:

- You may occasionally experience specs of blood in your urine and this is generally nothing to worry about
- A larger quantity of blood in your urine may be a sign of a urinary tract infection and you should speak to your GP about this in case you need a course of antibiotics
- If you experience fresh blood or blood clots you should seek immediate advice from your GP or health professional

FLUID MATRIX

This table is to determine how much fluid you should try to take in a 24 hour period. This is purely a guideline and applies to body frame and activity levels should be taken into consideration i.e. those partaking in vigorous exercise should drink more fluids.

Weight (St)	Weight (Kg)	Millilitres (mls)	Fluid (Ounces)	Pints	Mugs
6	38	1,190	42	2.1	4
7	45	1,275	49	2.5	5
8	51	1,446	56	2.75	5-6
9	57	1,786	63	3.1	6
10	64	1,981	70	3.5	7
11	70	2,179	77	3.75	7-8
12	76	2,377	84	4.2	8
13	83	2,575	91	4.5	9
14	89	2,773	98	4.9	10

TYPES OF FLUID

It is important that you plan your fluid intake around your daily activities. There are some types of fluids that you may need to restrict as they can irritate the bladder :

- Tea & Coffee
- Fizzy Drinks
- Pure Fruit Juices
- Alcohol

URINE MEASUREMENT

This table will enable you to record your urine output and give your Healthcare Professional an idea as to which urine drainage bags are more suitable for you. You do not have to be very accurate recording this. It can also give you some indication of the clarity of your urine and when you need more fluids. If your urine looks dark in colour or concentrated, you may need to drink more.

Occasionally your urine bag may turn a purple colour and this is nothing to worry about. It looks unsightly rather than anything being wrong. You may have to change the bag more frequently.

Time	Mon	Tue	Wed	Thur	Fri	Sat	Sun
	<i>Amount of urine in bag (mls)</i>						
12 Midnight							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							
12 Midday							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00							
08:00							
09:00							
10:00							
11:00							

EMERGENCY EQUIPMENT

It is important to keep an emergency stock of catheter equipment at home so that you are prepared if you encounter any problems.

- Two spare catheters of the size and type you use which may also include the necessary 10ml syringes, if not 2 x 10ml syringes & sterile water for balloon inflation.
- Anaesthetic or lubricating gel for insertion.
- Catheter drainage bags with supporting straps and/or catheter valves.
- Your patient notes with the catheter change history.
- Catheter maintenance solutions or instillations if already prescribed.

If you are in any doubt about what equipment or products you should keep at home, please discuss this further with your health professional.

STORAGE

Store any catheters, valves or drainage bags in their original packaging; in a dry, safe place away from direct sunlight and heat.

CATHETERS AND ACCESSORIES

The type of catheter you use will generally be determined by your health professional and based on your diagnosis, medical and personal needs. Depending on your circumstances you may be able to choose between a urethral or suprapubic catheter; your health professional can offer you further advice on your options.

There are two choices in terms of draining the urine from your catheter:

Free drainage – urine drains freely out from the catheter into a catheter bag.

Catheter valve – a valve at the end of the catheter is used instead of a bag allowing you to empty urine straight into the toilet.

There are three main types of drainage bags:

Leg bag – these are strapped to your leg and worn underneath your clothes during the day. There are a great many different makes of leg bag and they come in a variety of sizes with different types of straps to hold them in place. There is a tap at the bottom of the bag so it can be emptied at regular intervals (you should not let it get too full).

Night storage bag – This is connected directly to your leg bag and has a larger capacity to see you through the night. It should be attached to a stand at night and positioned lower than the bladder to aid drainage. Night storage bags should only be used once and disposed of in the morning.

Belly bag – This is for use with a suprapubic catheter and fastens around the waist generally by means of a woven belt or similar. It is emptied by means of a drain tube directly into a toilet.

Catheter Valves:

These can be more discreet than a bag and because urine is still stored in the bladder they will help keep your bladder in good working order, however, they need to be opened at regular intervals. There are a number of different types of valves and you should choose one that is easy for you to open and close.

It is advisable to try out different types of drainage bags and catheter valves until you find one that best suits your needs. Your health professional will be able to offer you more advice on what products are available or you can also contact B&BC for a fact sheet on drainage bags or catheter valves and the companies that supply these.

USEFUL WEBSITES & ADDRESSES

Association for Continence Advice

www.aca.uk.com

Tel: 01506 811077

Shine (Spina Bifida and Hydrocephalus)

www.shinecharity.org.uk

Tel: 01733 555988

Department of Health

www.doh.gov.uk

Tel: 020 7210 4850

Disabled Living Foundation

www.dlf.org.uk

Helpline: 0845 130 9177

Education and Resources for improving

Childhood continence (ERIC)

www.eric.org.uk

Helpline: 0845 370 8008

International Continence Society (ICS)

www.icsoffice.org

Tel: 0117 9444881

Multiple Sclerosis Society of Great Britain &
Northern Ireland

www.mssociety.org.uk

Helpline: 0808 800 8000

Phab

www.phab.org.uk

Tel : 020 8667 9443

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Bladder & Bowel Community

We provide information that allows you to make educated and informed choices, which will enable you to enjoy a greater quality of life.

We campaign for better services, treatments and products on your behalf, provide user-friendly booklets and fact sheets and a magazine twice a year. It is not just a problem for the elderly and is not an inevitable part of ageing. There is help available.

We aim to:

- Help break down isolation
- Promote emotional well-being
- Encourage self-help

Get in touch:

- Visit our website to browse information on symptoms, treatments and product choice. Register online as an annual individual supporter to get access to all website areas, download resources and access our continence clinic directory – www.bladderandbowel.org
- For general enquiries please phone our office on **01926 357220**
- Email your enquiry to help@bladderandbowel.org or write to us at **Bladder and Bowel Community, 7 The Court, Holywell Business Park, Northfield Road, Southam, CV47 0FS.**
- If you are a healthcare professional, please visit our website to become an annual registered health professional supporter and get access to our Health Professional Resource Centre, including online reference library and training opportunities.

Please contact us today to find out more about the work of B&BC and how we can help you.

B&BC Support

Our 'Just Can't Wait' toilet card uses what is considered to be a universally acknowledged image for a toilet. This generic image should help limit any embarrassment and ensure there is no confusion about the purpose of the card. It may also go some way to helping holders of the card find and access toilets in situations where English may not be the first spoken language.



The Bladder and Bowel Foundation's Just Can't Wait card clearly states that the holder has a medical condition and needs to use a toilet quickly. Although it does not guarantee you access to a toilet, most places you visit will be willing to help you. The card is a small, credit sized card, designed to fit easily into your purse, wallet or pocket. You can show the card when you're out shopping and socialising and it may help you gain access to a toilet.

Please send your completed postal supporter form to:

The Bladder and Bowel Community
7 The Court
Holywell Business Park
Northfield Road
Southam, CV47 0FS.

Online registration is open to individuals and health professionals. Please visit us at www.bladderandbowelfoundation.org for more information.



Under the Data Protection Act, B&BC has a legal duty to protect any information we collect from you. B&BC will not pass on your details to any third party.

CREDITS

This booklet was developed in conjunction with:-

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The advice given in this guide should not replace recommendations from your Healthcare Professional. Any questions or worries you may have should be discussed with your District Nurse.

Name and address of continence clinic issuing this booklet: