

# Urine Retention

## Background for “Is Intermittent Self-Catheterization the Right Choice for You?”

### Introduction

This website contains some information about urine retention including:

- [Anatomy of the Urinary System](#)
- [Definition of Urine Retention](#)
- [Symptoms of Urine Retention](#)
- [Causes of Urine Retention](#)
- [Reasons for Treating Urine Retention](#)
- [Options for Treating Urine Retention](#)

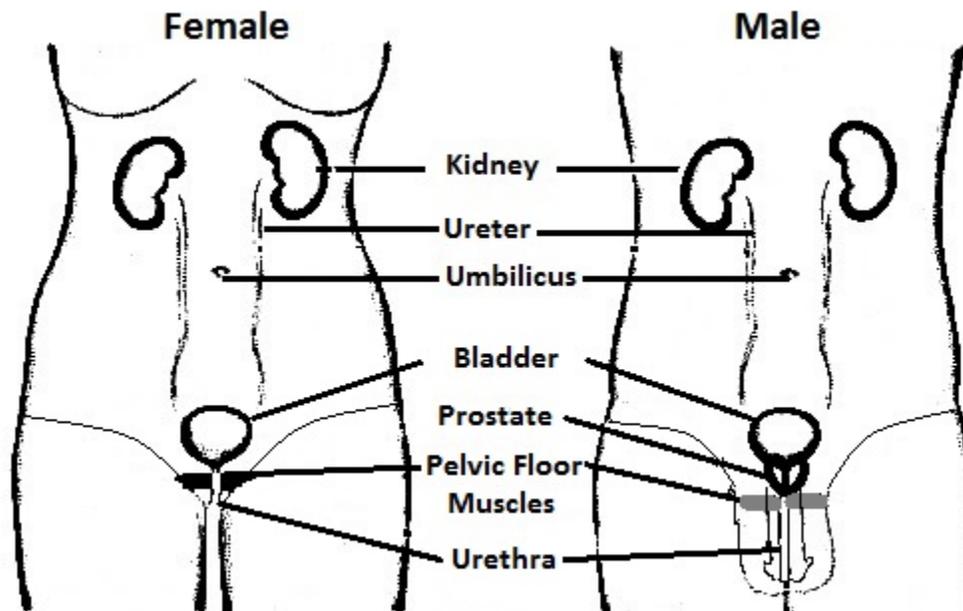
Three short stories of people who have experienced urine retention

- [Sally’s Story](#)
- [Sam’s Story](#)
- [Lisa’s Story](#)

[Resources](#): Provides some website URLs (links) which contain further information.

[References/Bibliography](#)

### The Urinary System



## The Urinary System

The urinary system removes liquid waste from your body. Urine is made in the kidneys, travels down the ureters and is stored in the bladder. The bladder is made of muscle and is found in the area below the umbilicus. Urine leaves the body from the bottom of the bladder through a tube called the urethra. The brain and bladder work together through a pathway of nerves to decide when to drain urine.

## Urine Retention

Urine retention means that you are never able to fully empty the bladder. This could happen suddenly or very slowly without any noticeable symptoms. If left untreated, this problem can cause damage to the bladder and kidneys.

## What are the Symptoms of Urine Retention?

If you do have symptoms, they may include:

- Urgency - having to go to the bathroom in a hurry and passing only a small amount of urine
- Frequency - going to the bathroom so often it interferes with your normal activities, both day and night
- Hesitancy - ready to pass urine but have trouble starting
- Weak or interrupted urine stream
- Pressure- feeling the need to urinate after just finishing
- Incontinence - urine leakage ( it may be a dribble or a large amount)
- Discomfort in the lower abdomen- could be caused by a distended or overfull bladder

## What Causes Urine Retention?

- Nerve damage - if nerves are damaged, the brain cannot tell the bladder when to empty
- Muscle damage - muscles do not work together to completely empty the bladder
- Blockage - this can stop or slow the flow of urine anywhere in the urinary system

## Some of the conditions that may cause urine retention include:

- Stroke
- Parkinson's Disease
- Multiple Sclerosis
- Pelvic nerve injury or pelvic floor damage
- Diabetes
- Birth defects
- Spinal cord injuries
- Complications from certain surgical procedures
- Prostate enlargement

## Treating Urine Retention

Urine retention may get worse over time. It can cause infections in the bladder, kidneys and/or blood. It can also lead to bladder stones or bladder and kidney damage.

There are several ways to treat urine retention. Treatment choices will depend on the cause of the urine retention and any other health problems you have. Tests will be done to show how severe your urine retention is and help decide which treatment options are most suitable. It is important that you continue to see a specialist in continence (Urologist, Nurse Practitioner, Enterostomal Therapy Nurse or a Nurse Continence Advisor) to find out how your treatment is working.

Treatment choices may include:

### Lifestyle Changes

- Fluid control - changing what, when and how much you drink can lessen bladder symptoms
- Timed voiding - urinating according to a preset schedule
- Double voiding - urinating, then relaxing for a few minutes before urinating again
- Biofeedback - learning to use your pelvic floor muscles to hold or pass urine

### Medications

Medications can help to decrease your symptoms and may be used along with other treatments.

### Self-Catheterization

A flexible tube (catheter) is put into your bladder through the urethra. A nurse will teach you how to do this. The urine drains out of the bladder through the catheter into the toilet or a container. Once the bladder is emptied the catheter is removed. This is repeated several times a day.

### Suprapubic Catheter

A doctor places a tube into the bladder through the skin below the umbilicus. This keeps the bladder empty. The tube is secured to your skin and attached to a drainage bag. Both are changed regularly.

### Foley Catheter

A flexible tube (catheter) is put into your bladder and a small balloon is filled with water to hold it in place. The catheter can remain for many days with a bag attached to the tubing to collect urine. The tube and bag will be changed by a nurse as needed.

### Bladder Surgeries

There are operations which can change the urine system so that urine retention is no longer a problem. Your doctor will explain this to you if surgery is one of your options.

## The Three Stories

### Sally's Story

Sally has bladder problems because of Multiple Sclerosis (MS). This is a disease that causes nerve damage which often affects bladder control. She has been wearing pads to take care of bladder leakage but now she finds that she is soaking pads and her skin is red and sore. She is also making frequent trips to the bathroom, even through the night. She worries about the smell and tries to stay home as much as possible. She is tired from always having her sleep interrupted.

She visits the continence nurse in her MS clinic who coaches her on lifestyle changes (in Sally's case, she was taught how to do scheduled voiding, what fluids to avoid drinking, and how to do double voiding). Sally is also prescribed some medications to help empty her bladder. These treatments help for a while but then her urine problems return. Sally is not able to empty her bladder and she hates getting bladder infections.

She returns to the MS clinic where the nurse suggests self-catheterization. At first Sally is against the idea of having to touch herself and put a catheter into her urethra because it might cause even more bladder infections. She also worries that she might not be able to learn how to self-catheterize since her vision is not good.

The nurse explains how self-catheterization could help. Sally learns to insert the catheter by feel without having to rely on sight. Her confidence grows after practicing several times with the nurse at her side. Sally has limited funds so the nurse has taught her how to clean her catheters and reuse them.

Sally is much happier because she does not need to wear pads. There is no longer any worry about smelling of urine. She is able to resume the activities that have been avoided since her urine problems started. With good technique Sally is able to avoid bladder infections. She saves money by not having to buy pads or cream for sore skin. Self-catheterization helps Sally to once again feel in control of her life.

### Sam's Story

Sam has urine retention caused by spinal nerve damage. His doctor is worried that Sam's kidneys will be damaged from urine backing up and offers several options.

#### Option 1

A Foley catheter can be inserted. Sam will have to empty the drainage bag when needed. He will have the catheter changed regularly by a nurse. Sam does not like the idea of this tube staying in place all the time.

#### Option 2

A suprapubic catheter can be placed into Sam's bladder. He is afraid the catheter will show or that the drainage bag will leak.

#### Option 3

The doctor then describes self-catheterization. This is something Sam thinks he can learn to do. There is no bag to empty and he does not need to worry about the catheter showing under his clothing.

Sam talks with the nurse who will teach him how to self-catheterize. He chooses a disposable catheter as this is more convenient and is covered by his private insurance. He feels better when he sees how easy each step is and that he will be able to do all his usual activities.

Sam is enjoying his life again.

## Lisa's Story

Lisa is 32 years old and was born with spina bifida. This affects the nerves to her legs so she uses a wheelchair. The nerves from her spine to her bladder have also been affected and she suffers from bladder retention. She learned self-catheterization as a child and this has worked well for her until now. She has just accepted a job at a store where she is working 12-hour shifts. She's having difficulty finding the time and privacy to self-catheterize. She does not want to tell her co-workers why she has to take extra time in the bathroom. The bathroom is not well-equipped with shelving. The small space makes it hard to position herself in order to insert the catheter. She knows her recent weight gain is making it even more awkward.

Lisa gets pneumonia and is hospitalized for a long time. The nurse inserts a Foley catheter which allows Lisa to rest and not worry about self-catheterization. When it is time to go home Lisa asks if she can keep the Foley catheter because she does not feel strong enough to restart self-catheterizing. The care team supports Lisa's decision and she is discharged with the Foley catheter.

At a follow-up visit with her family doctor, Lisa discusses different options for emptying her bladder. She likes the idea of keeping a catheter but does not like the way the Foley catheter catches and pulls when she moves to and from her wheelchair. Lisa decides to have a suprapubic catheter because it is easier for her to manage when she transfers from her chair. Lisa is pleased with her decision at this point in her life.

## Resources

We hope that the above sections have given you an understanding of urine retention and the options for treatment. This section will provide some websites that can give you more information on this condition, urinary function diagnostic tests, treatment options, and available research.

The Canadian Urological Association's website outlines urological conditions and procedures at: [www.uroinfo.ca](http://www.uroinfo.ca). This site provides brochures on over 50 topics, including the suggested technique for "Clean Intermittent Self-Catheterization":

[For women](#) / [For men](#)

[General Information about Urine Retention](#)

[Urinary incontinence information \(Registered Nurses Association of Ontario\)](#)

The link above also provides a Decision Aid for Urinary Incontinence as well as information on lifestyle changes or behaviour modification techniques that may be offered as one of your treatment options.

Check your catheter vendor's website if you want specific information about the catheter you are using. There are websites that show self-catheterization but many are product specific. We recommend you discuss this with your health professional to determine the site most appropriate for you and the product you will use.

[Agency for Health Care Research and Quality](#)

The links below are available from the above website. They focus on research and the non-surgical treatment of urinary incontinence:

- [Non-surgical Treatments for Urinary Incontinence: A Review of the Research for Women](#)
- [Taking Control: Non-surgical Treatment Options for Urinary Incontinence in Women](#)

The following is a Decision Aid for women who may have surgery as an option for stress incontinence from the Ontario Hospital Research Institute:

[Decision Aid for Women \(Ontario Hospital Research Institute\)](#)

## References

- Baskin LS, Kogan BA, Duckett JW. *Handbook of Pediatric Urology*. Philadelphia, PA: Lippincott–Raven; 1997.
- Bolinger R, Engberg S. Barriers, Complications, Adherence, and self-reported quality of life for clean intermittent catheterization. *J Wound Ostomy Continence Nurs*. 2013; 40(1):83-89.
- Capital Health. Patient/family education print materials guidelines (2<sup>nd</sup> Edition). Revised March 2013. Available at <http://www.cdha.nshealth.ca/system/files/sites/97/documents/patient-and-family-education-material-guidelines.pdf>. Accessibility verified February 6, 2014.
- Casey RG, Cullen IM, Crotty T, Quinlan DM. Intermittent self-catheterization and the risk of squamous cell cancer of the bladder: An emerging clinical entity? *Can Urol Assoc J*. Oct 2009; 3(5): E51–E54.
- Health Protection Surveillance Centre. Guidelines for the Prevention of Catheter-associated Urinary Tract Infections. Available at <https://www.hpsc.ie/hpsc/Publications>. Accessibility verified Oct. 20, 2014.
- Logan K, Shaw C, Webber I, Samuel S, Broome L. Patients' experiences of learning clean intermittent self-catheterization: a qualitative study. *Journal of Advanced Nursing*. 2008; 62(1): 32-40.
- McConville A. Patients' experiences of clean intermittent catheterization. *Nursing Times Plus*. 2002; 98(4): 55-56.
- MS Society of Canada. Urinary Dysfunction and MS: A Guide for People with Multiple Sclerosis. Available at: <http://mssociety.ca/en/pdf/2012-Urinary-Dysfunction-EN.pdf>. Accessibility verified Oct. 20, 2014.
- National Kidney and Urologic Diseases Information Clearinghouse. Urinary Retention. Available at: <http://kidney.niddk.nih.gov/Kudiseases/pubs/UrinaryRetention/> Accessibility verified Oct. 20, 2014.
- Newman DK, Wilson MW. Review of intermittent catheterization and current best practices. *Urologic Nursing*. 2011; 31(1): 12-28
- Nursing Times. Common problems with intermittent self catheterization. Available at: <http://www.nursingtimes.net>. Accessibility verified Oct. 20<sup>th</sup>, 2014.
- Ottawa Hospital Research Institute. Workbook on Developing and Evaluating Patient Decision Aids 2003. Available at: <https://decisionaid.ohri.ca>. Accessibility verified July 26, 2013.
- Paul CL, Redman S, Sanson-Fisher RW. Print material content and design: is it relevant to effectiveness? *Health Education Research, Theory & Practice*. 2003; 18(2):181-190.
- Pinder B, Lloyd AJ, Elwick H, et al. Development and psychometric validation of the intermittent self-catheterization questionnaire . *Clinical Therapeutics*. 2012; 34(12): 2302-2313.
- Robinson J. Intermittent self-catheterisation: teaching the skill to patients. *Nursing Standard*. 2007; 21(29): 48-56.
- Shaw C, Logan K, Webber I, Broome L, Samuel S. Effect of clean intermittent self-catheterization on quality of life: a qualitative study. *Journal of Advanced Nursing*. 2007; 61: 641-650.

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### **The following CAET members formed the working group for this project:**

Jean Brown, BNSc, ET (project lead from Oct. 2012-2014)

Gail Creelman, RN, CETN(C)

Paulo Da Rosa, RN, BScN, MCIScWH, CETN(C)

Donna Fossum, RN, BScN, CETN(C)

Maria Jones, BN, MN, CETN(C)

Sandra Roberts, RPN, RN, BScN, IIWCC, CETN(C)

Teri Anne Schroeder, RPN, RN, BScN, IIWCC, HCL, M Ed, CETN(C)