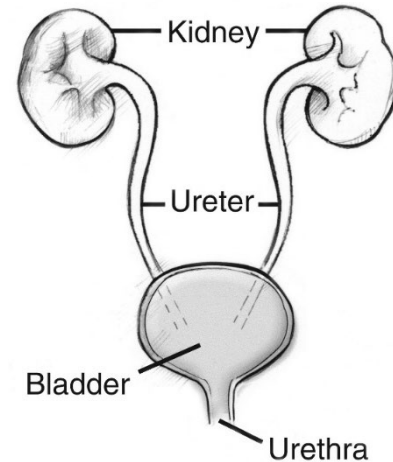


Catheter-Associated Urinary Tract Infection (CAUTI)

What is a urinary tract infection (UTI)?

A **urinary tract infection (UTI)** is an infection in the **urinary system**, which includes:

- The kidneys (which filter the blood to make urine, or pee)
- The ureters (which move urine from the kidneys to the bladder)
- The bladder (which stores the urine)
- The urethra (where urine exits the body)



UTIs are caused by germs (like bacteria or yeasts) that get into the urinary system.

What is a urinary catheter?

A **urinary catheter** is a thin tube placed in the bladder to drain urine. Urine drains through the tube and into a bag that collects the urine. A urinary catheter may be used:

- If you are not able to pee on your own
- To measure the amount of urine that you make
- During and after some types of surgery
- During some tests of the kidneys and bladder

What is a catheter-associated urinary tract infection (CAUTI)?

Germs can enter your urinary system (when a catheter is being put in or while the catheter is in your bladder) and cause an infection in your bladder or your kidney.

This is called a **catheter-associated urinary tract infection (CAUTI)**. People with urinary catheters have a much higher chance of getting a UTI than people who don't have a catheter.

What are the symptoms of a urinary tract infection?

Some of the common symptoms of a UTI are:

- Burning or pain in the lower abdomen (below the stomach)
- Fever
- Bloody urine (this may be a sign of infection, but it may also be caused by other problems)
- A burning feeling while peeing, or an increase in how often you need to pee, after your urinary catheter is removed

Sometimes people with CAUTIs do not have any of these symptoms of infection.

Is it possible to treat CAUTIs?

Yes, most CAUTIs can be treated with antibiotics and removing or changing the catheter. Your doctor will decide which antibiotic medication is best for you.

What are some of the things Michigan Medicine does to prevent CAUTIs?

In general, we only use a urinary catheter when necessary and we remove your catheter as soon as possible.

To prevent UTIs in people who do need catheters, doctors and nurses take the following steps:

During catheter insertion:

- We only allow people who are properly trained to insert catheters using a sterile (clean) technique.
- We thoroughly clean the skin in the area where your catheter will be inserted before inserting the catheter.

During catheter care:

- We clean our hands very well by washing them with soap and water or using hand sanitizer before and after touching your catheter.
 - If you do not see your providers clean their hands, please ask them to do so.
- We avoid disconnecting the catheter and drain tube. This helps to prevent germs from getting into the catheter tube.
- We make sure the catheter is secured to your leg to prevent pulling on the catheter.
- We avoid twisting or kinking the catheter.
- We keep the urine collection bag lower than your bladder to prevent urine from flowing back into the bladder.
- We empty your urine collection bag regularly and make sure the drainage spout does not touch anything while we're emptying the bag.

What can I do to help prevent a CAUTI?

- Always clean your hands before and after doing catheter care.
- Always keep your urine bag below the level of your bladder.
- Do not tug, pull on, twist, or kink the catheter tubing.
- Ask your healthcare provider each day if you still need the catheter, or ask if you can use a different urine collection device such as:
 - **External catheters:** These look like condoms or pouches for people with penises and soft, flexible catheters with a wicking material for people with vulvas. They are placed over the opening to the urethra

opening rather than in it. These devices may use suction to draw urine out of the body.

- **Intermittent urethral catheters:** These are temporary catheters which are removed right away after draining the urine.
- **Non-catheter alternatives:** These could include a bedside commode, a urinal, or a bedpan for patients who may have trouble making it to the bathroom.
- Do not request a catheter to avoid getting up and using the bathroom – request a different device instead of an indwelling catheter.

What will I need to do when I go home from the hospital?

- If you will be going home with a catheter, your doctor or nurse should explain everything you need to know about taking care of the catheter. Make sure you understand how to care for it before you leave the hospital and know how to contact if you have questions or problems.
- Contact your doctor or nurse immediately if you develop any of the symptoms of a urinary tract infection, such as:
 - Burning or pain in the lower abdomen (belly)
 - Fever
 - An increase in how often you're peeing

If you have questions, please ask your doctor or nurse.

Disclaimer: This document contains information and/or instructional materials developed by University of Michigan (U-M) Health for the typical patient with your condition. It may include links to online content that was not created by U-M Health and for which U-M Health does not assume responsibility. It does not replace medical advice from your health care provider because your experience may differ from that of the typical patient. Talk to your health care provider if you have any questions about this document, your condition, or your treatment plan.

Author: Jennifer Sweeney, MPH CIC

Edited by: Brittany Batell, MPH MSW CHES®

Image attribution: National Institute of Diabetes and Digestive and Kidney Diseases, NIH. Information adapted from the Society for Healthcare Epidemiology of America (shea-online.org).

Patient Education by U-M Health is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License. Last revised 03/2025