

# CLEAN INTERMITTENT CATHETERIZATION

## Background

Disease or injury can affect the ability to control urinary elimination including spina bifida, spinal cord injury, or other urinary tract defects. Nerves which control the bladder can be damaged and affect an individual's ability to sense when their bladders are full and/or empty their bladder of urine. The goal of bladder management is to enable bladder output using an alternative method.

Clean intermittent catheterization (CIC) is often the initial nonsurgical intervention used to manage bladder elimination. A catheter is inserted through the urethra into the bladder as ordered by the licensed healthcare provider, at least every three to six hours. Various brands, types, and systems of catheters are available for CIC. Routine and consistent CIC is important in preventing infection, leakage, and potentially serious kidney damage. Bladder medications may also be prescribed to decrease urinary leakage between catheterizations.

In some individuals, the bladder is not large enough to hold the urine made by the kidneys, causing urine to leak. The bladder can also lose its ability to stretch, causing increased bladder pressure that pushes urine back into the kidneys. To prevent incontinence, urinary tract infections, or kidney damage related to these conditions, surgical alternatives may be necessary to facilitate urinary elimination.

Several types of bladder surgeries can be used to create urinary diversion and facilitate urinary output. Bladder augmentation enlarges the bladder, making it more elastic, to decrease pressure. Another surgical alternative, a urostomy, is a permanent procedure that creates a new pathway for elimination when there is a bladder dysfunction, or the bladder has been removed. Urostomies can be continent (Mitrofanoff) that allow for intermittent catheterization or incontinent (vesicostomy) that require the use of a pouch or diaper.

All urinary diversion stomas and surrounding skin should be assessed and cleaned daily to prevent potential skin breakdown or infection. Infection could cause pain, change in stoma appearance, or fever. A minimal amount of erythema is normal for a period after surgery, but prolonged or new onset erythema or edema should be evaluated for treatment.



Stenosis (narrowing) of the stoma opening can slow the flow of urine and may also require follow up. If leakage occurs from a continent stoma, a minor procedure can correct the problem. Regardless of when a catheter or pouch system is ordered, it is important to be familiar with the brand, type, and procedure per the student's health care plan.

## Top Takeaways for School Considerations

The goal of all bladder management strategies is to keep the bladder and kidneys healthy and free from infection.

Clean intermittent catheterization (CIC) is often the initial nonsurgical intervention used to manage bladder output. Bladder surgeries can also create alternative methods for urine output.

School staff should work together to consider the student's ability to access the bathroom and storage/access of additional supplies (e.g., catheter, wipes). Depending on the type of bladder surgery, the student could require additional adult support to empty their bladder.

Consider student's academic schedule when coordinating CIC times with the healthcare provider orders. Attempts to avoid academic time but maintain frequency of CIC (e.g., q3 hours) is important.

Encourage student's participation consistent with their physical and developmental abilities. This could include recalling steps of procedure, assisting to gather supplies, or performing the skill independently.

## Kennedy Krieger Institute's Specialized Health Needs Interagency Collaboration

The Specialized Health Needs Interagency Collaboration (SHNIC) program is a collaborative partnership between Kennedy Krieger Institute and the Maryland State Department of Education.



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## Considerations for the Individualized Healthcare Plan (IHP)

- Nursing diagnosis of impaired urinary elimination and risk for Infection
- Current diagnosed health condition including date of diagnosis, progress of disease process and other chronic health conditions
- Current medication and treatment orders (consider schedule, equipment needs and side effects)
- Allergies or food restrictions
- Elimination interventions and equipment needs (consider catheterization brand/system, French size, cleaning procedure and frequency of catheterization); note location of procedure
- Skin check, pressure relief techniques
- Activity, positioning, transferring (consider precautions and/or restrictions)
- Equipment troubleshooting (consider equipment/device user manual, battery, charger)

## Discussion Starters for Educational Team

1. Would the student benefit from evaluations or assessments in any of the following areas: physical therapy, occupational therapy, speech and language therapy, assistive technology, adapted physical education, functional behavior, psychology, hearing and vision?
2. Would the student benefit from additional academic support and/or modified education (e.g., copies of notes, extra time, reduced workload, simplified instructions, alternative formats for presentation of material, 504/IEP)?
3. Would schedule flexibility support the student?
4. Does the student require activity precautions to prevent injury?
5. Does the classroom environment support the student's needs and/or equipment (e.g., flash pass for bathroom or nurse)?

## Resources

Kennedy Krieger Institute: Center for Spina Bifida and Related Conditions  
[kennedykrieger.org](http://kennedykrieger.org)

ACS American College of Surgeons-Home Skills for Patients  
[facs.org/for-patients/home-skills-for-patients/ostomy/pediatric-urostomy/#videos](https://facs.org/for-patients/home-skills-for-patients/ostomy/pediatric-urostomy/#videos)

United Ostomy Associations of Americas Inc.  
[ostomy.org/urostomy/](http://ostomy.org/urostomy/)



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