

Lofric®

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A NEWLETTER FOR CIC USERS

ASTRA TECH, USA

# bladdernews

A photograph of a woman with sunglasses on her head, wearing a white and black striped sweater, sitting on a beach. She is looking down at two children who are sitting in front of her. The child on the left is wearing a red sweater, and the child on the right is wearing a pink sweater. They appear to be playing together on the sand. The background shows a blue and white striped beach umbrella.

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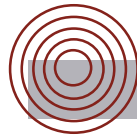


# Welcome... Bladdernews issue #9

Welcome to issue #9 of Bladdernews. We wish all our readers a very happy and healthy new year!

In this issue, we have two feature articles written by healthcare professionals. The first from nurse Kathy Costello titled "Gotta Go!! MS and Bladder Problems" where she focuses on connections between MS and the bladder, describes bladder problems that can occur in patients with MS, and offers advice on ways to be proactive in treatment and diagnosing. The second article is written by nurse Jake Klein who addresses the topic of "Potty Training and Dysfunctional Elimination". He relates how the coordination of potty training steps is crucial to successful voiding and the overall establishment of optimal bladder habits.

Attention all LoFric kids! We are featuring an exciting coloring contest with an iPod Shuffle and iTunes gift card grand prize! Get out your crayons and start coloring, entries must be received by June 1, 2009. The winning picture will be featured in our next issue, good luck!



## FEATURE ARTICLE #1

### Gotta Go!! MS and Bladder Problems

*Kathleen M. Costello, RN, MS*

Nearly everyone has had at least one occasion when they experienced bladder urgency – that feeling that you must empty your bladder RIGHT NOW! Sometimes this might occur while on a long car ride, or on a long flight. But usually we do not consciously “think” about our bladder on a regular basis.

With a diagnosis of Multiple Sclerosis (MS), the bladder and its function may become an annoyance or even a major issue. To learn why this happens in MS and what can be done about it, let’s look at normal bladder function and then what can happen to bladder function as a result of MS.

The bladder is really a flexible container for holding urine. The walls of the container are muscular. When we drink fluids, they pass through the kidneys and the liquid waste flows from the kidneys into tubes called the ureters and then into the bladder. The bladder stretches as more and more urine flows in. When there is about a cup of urine in the bladder, nerve endings in the bladder wall are activated and send signals up to the brain. The brain then decides

if it is an appropriate time to empty the bladder and sends a signal back down to the bladder to either wait or contract. When the bladder contracts it squeezes the stored urine towards the opening known as the sphincter. The sphincter is like a valve that must open to allow urine out of the bladder and into a tube known as the urethra. Once the sphincter relaxes, urine is able to flow. Most all of this activity is automatic, although we usually have the ability to “hold” urine if a bathroom is not available.

So what happens in MS? Bladder symptoms are very common in MS, affecting more than half of those diagnosed with the disease. Bladder problems in MS range in severity and type of problem. They result from disruption in the messages going from the bladder up to the spinal cord and to the brain or those messages coming from the brain and spinal cord to the bladder. This disruption in messages generally causes one of the following bladder problems:

- 1) Failure to store urine
- 2) Failure to empty urine
- 3) Both failure to store and failure to empty

The inability to store urine is the most common bladder issue caused by MS. The bladder receives an inappropriate message to contract when it is not really full. A bladder

(contd. on pg. 8)



# Potty Training and Dysfunctional Elimination Syndrome



Jake Klein, MS, CPNP

Successful potty training is a great accomplishment for both parents and children. It can save time and money, as well as open a myriad of social options for families when exploring babysitters, school, and travel. When a child becomes toilet trained, it often translates into a form of “instant power and independence” for them. Likewise, they can also experience a great sense of self-esteem by mastering this task.

A detailed review of the current literature suggests that the age of potty training in the United States has become delayed over the last 60-80 years with the majority (98%) being successful by 36 months of age. This trend appears to be due to the availability of disposable diapers. However, more than 50% of children, around the world, are potty trained by age one. This is simply done out of necessity as a majority of families can't afford disposable diapers, nor do they have the facilities to wash cloth diapers. “Readiness” to potty train can start as early as 18 months, but cognitive, psychological, and motor skills must be intact before beginning.

Nighttime bladder control usually occurs later due to the complexity and skill needed to awaken from deep sleep to the signal of a full bladder. Ten percent of 6 year olds still wet the bed. By age 15, less than one percent will have bed wetting.

The potty trained child is expected to have complete control of their bladder and bowels. They should know when it is time to go to the bathroom and be able to evacuate their bladder or bowels without problems, right? Surprisingly, this is not always the case as primary care doctor's offices and pediatric urology clinics across the nation are experiencing an epidemic of children diagnosed as “dysfunctional eliminators”, or sometimes referred to as “dysfunctional voiders”. Obviously these are not “life threatening” medical issues, but the appointments can simply not be booked fast enough to satisfy pediatricians and parents frustrations with this escalating problem.

The task of potty training is learning how to control the bladder and bowel, during the waking hours, until it is appropriate to use the bathroom. To most of us, this process may seem easy, but it is actually quite complex for children of all ages. Even if your child has been properly potty trained, they can regress and learn abnormal toilet behaviors.

There are four components involved in the voiding process:

- 1) The bladder must become full enough of urine to send a SIGNAL from the bladder, up the spinal column and to the brain.
- 2) A SENSATION or PERCEPTION of “bladder fullness” must be recognized.
- 3) ACTION must be taken to go to the restroom and voluntarily RELAX the urinary sphincter muscle that holds the pee in.
- 4) Relaxation of the voluntary sphincter causes an “involuntary or automatic” CONTRACTION of the bladder (detrusor) muscle resulting in voiding.

The coordination of these four steps is crucial to successful voiding, establishing optimal bladder habits, and staying dry as well as infection free. These steps are essentially the same to have a bowel movement. Learning to control and separate these two individual evacuation processes can present even more challenges for the child.

The majority of children are very busy and distractible throughout the day. They often have their own agenda and priorities for the day as well. In comparison to playing and having fun, peeing and pooping are LOW priorities for them. Therefore, they can learn how to “hold on” too long by ignoring these signals the body gives them to go pee and poop. The longer these ignoring behaviors persist, the higher the child's risk is of developing dysfunctional elimination syndrome. Over time, as the signals become dull, the child

and bladder simply “grow apart” from each other. This results in decreased sensation and perception of these warning signals. Next, unwanted symptoms such as urgency, frequency, urge incontinence (wetting), constipation (infrequent, large, painful poops), stool incontinence (smearing), abdominal pain, painful urination (dysuria), holding postures, and urinary tract infections (UTIs) begin to present.

In a majority of these cases, these poor bladder and bowel habits are purely behavioral in nature. There is a very small percentage chance that there is something structurally wrong with the anatomy. Treatment simply involves “re-potty training” the child towards good bowel, bladder, and hygiene habits. With intensive behavioral modification, and a lot of help from family, friends, school, but most importantly the child, improvements can be made.

After a very detailed history and physical is done by your provider, they will provide a series of recommendations that follow a detailed “Bowel and Bladder” program. Sometimes urine tests and x-rays will be ordered in addition to the visit. In short, the child must be compliant with a “timed voiding schedule” (every 2-3 hours), practice unhurried and relaxed voiding posture, and have meticulous hygiene and wiping habits. Any form of constipation must be managed aggressively. Elimination of unwanted fluids (soda pop) and diet adjustments are also recommended.

When a child simply can not empty their bladder effectively using strict timed voiding, double voiding (voiding again few minutes after first void), and optimal relaxed voiding posture methods, clean intermittent catheterization (CIC) may be recommended. These are obviously very rare cases and should always be investigated further with bladder studies (urodynamics), renal ultrasound (kidney images), and an MRI (magnetic resonance imaging) to rule out any spinal cord defects that could alter normal bladder function. If CIC is recommended, the use of a Lofric hydrophilic type catheter can help decrease discomfort, minimize urethral

irritation and trauma, and lower the incidence of UTIs.

Positive reinforcement is obviously crucial for success. Punishment has no place in potty training and can ultimately result in more resistance by the child, and in extreme cases, child abuse by the caretaker or parent. Most importantly, the family and the child must be consistent, compliant, and motivated to want to change the behavior. Remember, that children will need constant guidance and frequent reminders to make improvements. Additionally, it often takes

several weeks, months, or even years for these unwanted symptoms to present. Therefore, it will also take a significant amount of time to correct these habits.

Unfortunately there are no quick fixes or magic pills to cure this frustrating problem, just lots of hard work and patience. The percentage of relapse can also be high as families and children simply “fall off the wagon” and slip back into bad toileting habits again.

#### References:

- Schmitt, B., Getting kids out of the diaper and onto the toilet. *Contemporary Pediatrics*, (March 2004), Vol. 21, No 3; pgs 105-116.
- Walsh, P. C., Retik, A.B., Vaughan, E. D., & Wein, A.J., (2002) *Campbell’s Urology* (8th ed.). Philadelphia, PA: W. B. Saunders Company.



*Halverstadt Center of Excellence Pediatric Urology Clinic is located at the Children’s Hospital, University of Oklahoma Health Sciences Center in Oklahoma City.*

*Jake is the clinic manager and a full-time provider who sees all types of urological conditions, runs the dysfunctional elimination clinic, performs all of the post-operative and CIC teaching for the majority urinary reconstructive surgeries, as well as performs and interprets all the video-urodynamic testing.*

*Special thanks to his attending physicians: Doctors Bradley P. Kropp, Dominic Frimberger, and William G. Reiner.*

## A Special Story About a Patient...

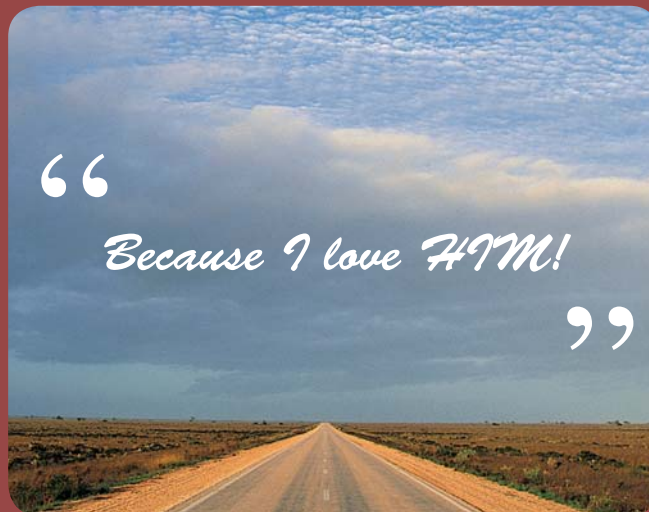
Congratulations to our contest winner Suzanne M. Fortuna, CNS, FNP! Suzanne works as the Spina Bifida Coordinator in the Pediatric Orthopaedic Surgery department at Rainbow Babies and Children's Hospital, Cleveland, OH. From 9/15/08 - 11/15/08, LoFric held a contest for all Urology healthcare professionals titled "Tell us your LoFric comfort story". Healthcare professionals were asked to write about how they have helped make a patient more comfortable using the LoFric catheters. Below is Suzanne's winning comfort story, and because her story was chosen, she has won a free trip to the SUNA Annual Symposium in San Francisco, March 12-14, including full conference registration, airline transportation, local transportation, and hotel accommodations. We hope you enjoy a little comfort on us Suzanne!



*I recall an 18 year old male with spina bifida and a renal transplant who continued to get horrible UTI's. I was asked to review technique and care to protect his kidneys and his recent transplant (he had rejected 2 previous kidneys). He was a quiet and shy young man but I asked him to actually show me how he performed his cath program. He further demonstrated: no hand washing, pulled his ?clean catheter out of his jeans pocket, no lube of any kind to be seen. I quietly let him finish...we discussed hand hygiene and then I asked him a question? Does it hurt to insert your catheter? He claimed often it did in fact...that 's why he did it less frequently than he knew he should. We tried several tips to keep the catheter lubed but our best result was with the lofric catheter...He didn't have to find a sink to wet the cath or remember to bring a tube or package of surgilube...so he went from 1-2 times a day cath program to the recommended 3-4 times a day with better ease and more compliance. I think if he hadn't been given this particular catheter and if someone hadn't taken the time out to trouble shoot his personal issues, he may have lost this new kidney too. He happily catheterizes and we presently are working on getting him to remember to irrigate everytime too...but his UTI incidences have decreased...Thank you for the opportunity to share with you a success story.*

## A Caregiver's Perspective...

*Seventeen years ago, I fell in love with the funniest man. We dated throughout college and eventually married. Four years ago, he was in an almost fatal car accident which tried to take his life. After 25 days in ICU and two months at inpatient rehabilitation, he was home with me. Steven has always been a very independent person for as long as I've known him. He takes care of the bills and keeps the house afloat. All this changed in the blink of an eye. Now he needs my assistance for bathing, dressing from the waist down, and most importantly bowel care. I am his only caregiver and he depends upon me for many things. One thing I can say about him is that he is still strong willed. After staying home for one year from the hospital, he returned to full-time work. His previous employer held his job for him so he could return. He is a very hard worker and I know they appreciate him. Our*



*typical day starts at 3:50 a.m. with range of motion in bed. Then after getting fully dressed, off to work fifty miles away to sit at his desk at 6:00 a.m. Meanwhile, I have a full-time career as well. He works a nine-hour day while continuing to manage his bladder and then drives back home. In the evening, I help him with bathing from a shower chair and perform our bowel care every three days. To bed around 9:00 p.m. just to start all over again. I know this is not a lot for some other people, but it takes a lot out of us. I am grateful for all the prayers and blessings we have received through the years. God has been good to us and always will. We both still have our "pity parties" every once in a while, but who doesn't? As long as Steven keeps his sense of humor, I will laugh..... Because I Love HIM!*

*By Kami, from Louisiana*

# Bladder and MS Resources

## MS Website Resources

National Multiple Sclerosis Society  
[www.nationalmssociety.org](http://www.nationalmssociety.org)

All About Multiple Sclerosis  
[www.mult-sclerosis.org](http://www.mult-sclerosis.org)

Multiple Sclerosis Foundation  
[www.msfacts.org](http://www.msfacts.org)

Multiple Sclerosis International Federation  
[www.msif.org](http://www.msif.org)

MultipleSclerosis.com  
[www.multiplesclerosis.com](http://www.multiplesclerosis.com)

The Multiple Sclerosis Association of America  
[www.msaa.com](http://www.msaa.com)

Consortium of Multiple Sclerosis Centers  
[www.msca.org](http://www.msca.org)

MS Active Source  
[www.msactivesource.com](http://www.msactivesource.com)

MS Network  
[www.ms-network.com](http://www.ms-network.com)

Jooly's Joint  
"People with MS supporting each other"  
[www.mswebpals.org](http://www.mswebpals.org)

For people living with MS...



For consumers, Astra Tech has created a new guide that discusses ways to gain control over bladder issues you may be experiencing.

As you may already know, MS affects the urinary system. If you experience problems, have them investigated as soon as possible. Not confronting these problems can lead to long-term discomfort and maybe even hospitalization.

This pamphlet will help you identify those problems and offer ways to help. It also makes it easier for you to ask the right questions and maybe even make the right demands from your healthcare providers.

For healthcare professionals working within MS...



For healthcare professionals, Astra Tech has created a new book focusing on MS and bladder continence. This comprehensive resource is intended to give basic information and advice from experts about the bladder problems that accompany this disease.

Because the nature of MS implies a constantly changing condition, it is important to regularly include urological assessments in patient investigations and follow-up.

Our hope is that this book will help in the healthcare facilities and benefit MS patients.

(contd. from pg. 4)

that cannot store enough urine is usually small and overactive. This causes the “gotta go” sensation also known as urgency. This can also cause frequent urination – even every few minutes. In addition, the small, overactive bladder can cause the need to go during the night known as nocturia. A more severe symptom of the inability to store is the loss of control or incontinence. Failure to store is an annoying and sometimes disabling symptom of MS. Sometimes, fear of a bladder accident will cause some to avoid leaving their house for errands or social activities.

Failure to empty urine means that the bladder fills and fills without the correct signal to empty. Eventually it cannot stretch or hold any more urine and it might leak. Some of the symptoms experienced with failure to empty are similar to the small bladder symptoms such as urgency and frequency. In addition, other symptoms include trouble getting urine flow started (hesitancy) and double voiding (thinking you have emptied and then needing to go again).

Sometimes a third type of bladder problem can exist. In this third type the normal coordination of bladder squeezing and sphincter opening get out of sync. When this happens there can be symptoms of urgency, frequency, and incomplete bladder emptying.

A complication of a bladder that will not empty completely is a bladder infection; often called a urinary tract infection or UTI. If the urine stays in the bladder too long, bacteria can grow and cause an infection. Bladder infections often make other MS symptoms worse temporarily. Symptoms such as weakness or stiffness in the limbs are often worse when there is a bladder infection.

Although these bladder problems can be annoying and significant problems for many people living with MS, in most cases bladder symptoms can be treated very effectively. Sometimes prior to initiating a treatment, specialized testing is necessary to determine the type of bladder problem, since some of the symptoms can be similar. Treatment will be different depending of the type of storage and emptying problems. If a person with MS reports a new onset of bladder symptoms, the first test that will likely be done is a urinalysis. This is done to look for infection. A bladder infection (or UTI) can temporarily cause symptoms of urgency, frequency, and hesitancy. Additional symptoms of strong odor of the urine, pressure over the lower part of the abdomen, or burning when voiding can also be present with an infection. Sometimes in MS the only sign that there is a

bladder infection is the change in MS symptoms. If there is no bladder infection, a measurement of how much urine is still in the bladder after voiding will be done. This amount is known as “post-void residual” or PVR. Normally the amount of PVR is less than 100 ml (about 3 oz). More than 100 ml is usually a sign of incomplete emptying of the bladder. PVR is measured by placing a tube (catheter) in the bladder after voiding or by performing an ultrasound of the bladder.

More extensive testing called urodynamics can also be done to determine the bladder diagnosis. This testing is done by a specialist in bladder function, known as a Urologist. Urodynamic testing can be done to determine how the bladder and sphincter are functioning. Sometimes a simple blood test will also be done to check the function of the kidneys.

The correct treatment of bladder problems is determined once the bladder problem is correctly diagnosed. When a small, spastic bladder is the problem, often medications and diet changes are helpful. Caffeine, alcohol, and artificial sweeteners such as aspartame can irritate the bladder and thus cause additional urgency. There are numerous prescription medications that reduce the “gotta-go” sensation by reducing bladder spasms. These include the following medications:

- Oxybutinin (Ditropan®)
- Tolterodine (Detrol®)
- Darifenasin (Enablex®)
- Solifenacin succinate (Vesicare®)
- Trospium chlonde (Sanctura®)
- Flavoxate (Urospas®)

It is generally not useful to restrict fluids to correct bladder problems. Too much restriction can actually cause bladder irritation and make symptoms feel worse. If the urge to void occurs during the night, sometimes stopping fluids after the early evening can be helpful, however, one should not restrict fluids all day long.

A bladder that fails to empty or that incompletely empties may best be helped with intermittent or self-catheterization. This requires that the individual place a small tube into the bladder one or more times each day to make sure the bladder is completely empty. Intermittent self-catheterization helps to reduce bladder infections, and often gives greater confidence for social activities. Although no one gets too excited when self-

## Tips for living with MS:

### Stay Positive -

Make sure to stay in contact with friends and family and be sure to share feelings and concerns with them if needed.

### Pace Yourself -

Get familiar with your limitations and work to find a routine that is successful for you.

### Manage Symptoms -

Try not to panic if a new problem comes up or your symptoms change, not all new symptoms are caused by MS.

### Get Informed -

Research on your own and keep your findings up to date on the latest advances. Join an MS support group, whether you are there in-person or online, other people with MS are often the best source of information and support.

## MS diet and nutrition:

People with MS often face unwanted weight from steroid therapy, fatigue, and depression but there are ways to combat these side effects. Below are dieting tips to help maintain a healthy weight and keep you feeling energized (nmss.org):

- **Change one meal at a time.** Focus on eating a healthy breakfast such as oatmeal, fresh fruit, or an egg-white omelet.
- **Snack.** Healthy snacking helps to control your appetite so you don't eat too much at regular meals and keeps your metabolism working steadily.
- **Follow your cravings.** Cravings take over when you feel unsatisfied. That can lead to binge eating, so work your cravings into your eating plan.
- **Get support.** It's always easier to change when you have the support of others who are going through similar challenges.
- **Don't forget to get a move on.** Start exercising just five minutes a day. If going to the gym is too difficult, put on your favorite music at home and move around.

For more nutrition and diet information go to [nmss.org](http://nmss.org) and click on "Living with MS".

catheterization is brought up, it is a very effective way to correct certain bladder problems. When there is dysynergia, meaning the bladder and sphincter functions are out of sync, sometimes a combination of medication and catheterization is useful for symptom control.

In summary, bladder problems are common in Multiple Sclerosis. Treatment can be very effective, but first a thorough evaluation of the problem must be done. Only then can the most effective strategy be used. Sometimes it will take time to determine the best bladder prescription for an individual, but remember, most bladder symptoms can be effectively managed!

*Kathleen M. Costello, RN, MS, is currently the Clinical Director of the Maryland Center for Multiple Sclerosis, located at the University of Maryland, Baltimore. Ms. Costello is responsible for coordinating acute hospitalizations, rehabilitation, outpatient, and home care services. She is the research coordinator for several clinical trials for new treatments for multiple sclerosis. Ms. Costello developed and assists in the administration of a teaching program for injectable therapies for multiple sclerosis. Ms. Costello is a speaker for the Maryland Chapter of the National MS Society.*



# Kid's Corner



Color in the picture on pg. 11 and send it in to win a new iPod Shuffle and iTunes giftcard! (All entries must be received by June 1, 2009).

Please mail all entries to:  
Astra Tech, Inc.  
Attention: Amanda Bernard  
21535 Hawthorne Blvd., Ste. 525  
Torrance, CA 90503

## What's Different?

There are 5 differences between the two pictures below, can you spot them?



## MS RESOURCES FOR KIDS:

### Keep S'myelin

A newsletter created by National Multiple Sclerosis Society for kids and parents to learn about the facts, read testimonials, and participate in the fun activities and games.

Website: <http://www.nationalmssociety.org/keepsmyelin>

### Let's Talk MS: For Kids

A website for kids to learn about MS, play games, and receive support if they are dealing with a parent or loved one who has MS.

Website: <http://www.msforkids.com>

### National Multiple Sclerosis Society

A website that can define MS, causes and treatments as well as provide information on contacting a local MS chapter near you.

Website: <http://www.nmss.org>

Name: \_\_\_\_\_ Age: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_





## EDITORIAL STAFF

Carolina and Amanda work every day to bring readers a newsletter full of educational information. Bladdernews is published twice a year.

We want to hear from you. Readers always enjoy knowing that others share their life experiences. If you have a personal story to tell about how intermittent catheterization (or LoFric) has helped you, send it in to us. We will post it anonymously if you wish. Or, if you have suggestions on future article topics, we want to hear them - call or email us.

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### Literature:

Product Catalog     Overview of Clinical Studies     Frequently Asked Questions

### Previous Bladdernews Issues:

Healthy Bladder - Issue 1     Urethral Strictures - Issue 4     Continent Urinary Diversions - Issue 7  
 Spina Bifida - Issue 2     Multiple Sclerosis - Issue 5  
 Spinal Cord Injuries - Issue 3     Urinary Tract Infections - Issue 6     Bladder Augmentation - Issue 8

Are you/your child currently being prescribed LoFric?  Yes  No

### If not, which catheter brand are you using?

Bard     Rochester     Coloplast/Mentor     Rusch/MMG     Hollister

Is the catheter coated (hydrophilic)?  Yes  No

Name:

Address:

City:

State:

Zip:

Phone No.:

Email Address:

