

# *Peristeen<sup>®</sup> and the Neurogenic Bowel Dysfunction Score (NBD) for pediatric patients with spina bifida*



Coloplast develops products and services that make life easier for people with very personal and private medical conditions. Working closely with the people who use our products, we create solutions that are sensitive to their special needs. We call this intimate healthcare.

Our business includes ostomy care, continence care, wound and skin care and urology care. We operate globally and employ more than 11,000 employees.

**Indication:** The Peristeen® Anal Irrigation System is intended to instill water into the colon through a rectal catheter, which incorporates an inflatable balloon, inserted into the rectum to promote evacuation of the contents of the lower colon. The Peristeen Anal Irrigation System is indicated for use by children (2 years - <12 years old), adolescent (12 years - < 18 years old), transitional adolescent (18 - <21 years old) and adult patients with neurogenic bowel dysfunction who suffer from fecal incontinence, chronic constipation, and/or time-consuming bowel management procedures.

**Contraindications:** Peristeen Anal Irrigation must not be used in the following situations: known anal or colorectal stenosis, colorectal cancer, radiotherapy to the pelvis, and recent abdomino-perineal surgery, active inflammatory bowel disease, diverticulitis and ischaemic colitis, chronic and complex diverticular disease, abdominal, anal or colorectal surgery within the last 3 months, within 4 weeks of endoscopic polypectomy, recent colonic biopsy, recent endoscopic mucosal resection (EMR) and recent endoscopic sub-mucosal dissection (ESD), severe autonomic dysreflexia, or during Spinal cord shock phase. In patients who are pregnant and have not used the system before\*. Since the list is not exhaustive, the healthcare professional should always consider individual patient factors as well.

\*If the patient is pregnant and has never used anal irrigation before, they should not start the irrigation procedure during pregnancy.

**Warning:** Anal irrigation procedure should always be carried out with care. Bowel perforation is an extremely rare, but serious and potentially lethal complication to anal irrigation and will require immediate admission to a hospital, often requiring surgery. See the device manual for complete user instructions, contraindications, warnings, precautions, and potential complications/adverse events. For further information, call Coloplast Corp at 1-855-605-7594 or consult the company website at [www.coloplast.us](http://www.coloplast.us). **Caution: Federal law restricts this device to sale by or on the order of a physician.**

# Introduction to Neurogenic Bowel Dysfunction Score<sup>1</sup> for pediatric patients with spina bifida

The Pediatric Neurogenic Bowel Dysfunction Score<sup>1</sup> also known as the Pediatric NBD Score has been designed to help healthcare professionals evaluate the effectiveness of their patient’s current bowel management routine by assessing the impact it has on the patient’s quality of life.

By having your patients or their caregivers answer 15 simple questions, the Pediatric NBD Score can help identify and quantify severity of bowel dysfunction in the pediatric spina bifida patients.

The Pediatric NBD score consist of 15 questions and is a symptom-score where each symptom is weighted based on it’s impact on quality of life. The scores are added together and a total score is calculated.

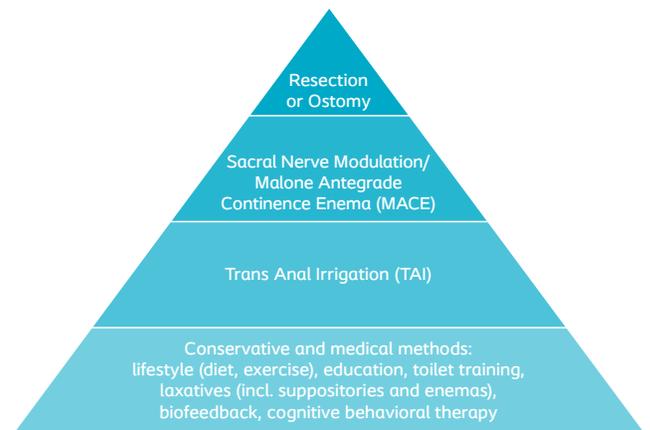
The maximum score is 41 points while the minimum is 0.

<b>Score</b>	<b>Severity of bowel dysfunction</b>
0-8	No neurogenic bowel dysfunction
8.5+	Neurogenic bowel dysfunction

## How to use the Pediatric NBD Score

Once the questionnaire has been completed and reviewed, look at the patient’s total score. A score of 8.5 or more suggests the presence of neurogenic bowel dysfunction.

In children with bowel dysfunction who do not respond to conservative treatments as illustrated in figure 1, trans anal irrigation is an increasingly accepted treatment<sup>2</sup>.



**Figure 1. Neurogenic bowel dysfunction treatment pyramid<sup>2</sup>**

One option is to consider using the Peristeen® Anal Irrigation system. Please note that regular contact with a healthcare professional in the initial stages of using the Peristeen system is strongly advised.

Once the patient has settled into a good routine, usually after 3 months, a patient follow-up where the questionnaire is completed again is recommended to track progress. The score should be lower than before, indicating an improvement in quality of life.

We hope this Pediatric NBD score will be a useful tool in your practice.

*Please note: The Pediatric NBD Score is not suitable for the adult patient. Please refer to the NBD Score for the adult patient.*

1. Kelly MS, Hannan M, Cassidy B, et al. development, Reliability and Validation of a Neurogenic Bowel Dysfunction Score in Pediatric Patients With Spina Bifida. Neurology and Urodynamics 2014; DOI:10.1002/nau.22694.  
 2. Mosiello G. et al, Consensus Review of Best Practice of Transanal Irrigation in Children. JPGN 2017; 64(3): 343-52

Patient Name: \_\_\_\_\_ Date: \_\_\_\_\_

## The Neurogenic Bowel Dysfunction Score<sup>1</sup> for the pediatric patient

	Score
<b>1. How would you rate your overall general health status?</b> <input type="checkbox"/> Excellent or very good (score 0) <input type="checkbox"/> Good (score 1) <input type="checkbox"/> Fine (score 2) <input type="checkbox"/> Poor (score 3)	
<b>2. How would you rate your general health today compared to a year ago?</b> <input type="checkbox"/> Much better or better or same (score 0) <input type="checkbox"/> Worse (score 1) <input type="checkbox"/> Much worse (score 2)	
<b>3. Does a parent or caregiver have to assist you with your regular bowel routine?</b> <input type="checkbox"/> No (score 0) <input type="checkbox"/> Yes, they have to help me some (score 1) <input type="checkbox"/> Yes, they have to do everything for me (score 2)	
<b>4. Do you use a wheelchair to get around daily?</b> <input type="checkbox"/> No (score 0) <input type="checkbox"/> Yes (score 1)	
<b>5. In general how controlled do you think your bowels are?</b> <input type="checkbox"/> Very well (score 0) <input type="checkbox"/> Well (score 1) <input type="checkbox"/> Fine (score 2) <input type="checkbox"/> Poorly (score 3) <input type="checkbox"/> Not at all (score 4)	
<b>6. On average how often are you having a bowel movement?</b> <input type="checkbox"/> Daily (score 0) <input type="checkbox"/> More than once a day or every other day (score 1) <input type="checkbox"/> Less than 4 times a week (score 2)	
<b>7. Using the description below on average what category was your poop most commonly?</b> <input type="checkbox"/> 3 (score 0) <input type="checkbox"/> 2 or 4 (score 1) <input type="checkbox"/> 1 or 5 or hard to tell due to poop being in a diaper (score 2)	

### Modified Bristol Stool Score for Pediatrics<sup>3</sup>

The stool illustrations below will help you determine your stool type.

Type 1	Type 2	Type 3	Type 4	Type 5
				
Separate hard lumps, like nuts (hard to pass)	Sausage-shaped but lumpy	Like a sausage or snake, smooth and soft	Fluffy pieces with ragged edges, a mushy stool	Watery, no solid pieces, entirely liquid



**8. How often do you have stool accidents?**

- Never (score 0)
- A few times a month (score 1)
- Daily (score 2)
- More than once a day (score 3)

**9. Do you wear a diaper for stool accidents?**

- Never (score 0)
- Yes, occasionally (score 1)
- Yes, everyday (score 2)

**10. How often does it hurt you to have a bowel movement?**

- Never (score 0)
- Rarely (score 1)
- Sometimes (score 2)
- Usually (score 3)
- Always (score 4)

**11. Do you currently have any rashes or cuts on your bottom?**

- No (score 0)
- Yes (score 1)

**12. How often does the current management of your stool interfere with your recreational, social or family activities?**

- Never (score 0)
- Rarely (score 1)
- Sometimes (score 2)
- Usually (score 3)
- Always (score 4)

**13. How often does the frequency of your bowel movements affect your recreational, social and family activities?**

- Never (score 0)
- Rarely (score 1)
- Sometimes (score 2)
- Usually (score 3)
- Always (score 4)

**14. How bothersome is it to you to have stool accidents or chronic constipation?**

- Not bothersome (score 0)
- A little bothersome (score 1)
- Somewhat bothersome (score 2)
- Very bothersome (score 3)

**15. Do you feel that your current medications or bowel techniques help you with your bowels?**

- A whole lot (score 0)
- A lot (score 1)
- Some (score 2)
- Not much (score 3)
- Never (score 4)

Total score between 0 and 41

Score	Severity of bowel dysfunction
0-8	No neurogenic bowel dysfunction
8.5+	Neurogenic bowel dysfunction

**General satisfaction**

Please mark the scale with a (x) to represent your general satisfaction with your bowel management. (Total dissatisfaction = 0 / Perfect satisfaction = 10)

- 0  1  2  3  4  5  6  7  8  9  10

3. Chumpitazi BP, Lane MM, Czyzewski DI, et al. Creation and initial evaluation of a stool form scale for children. J Pediatr 2010; 157:594-97.