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International Pelvic Pain Society's  
Annual Scientific Meeting in  
Chicago, Illinois at the  
Palmer House Hilton

Thursday, October 21, 2010 - Resident's Course  
Friday, October 22, 2010 - Saturday October 23, 2010  
Physical Therapy Workshop on Sunday, October 24

Register at [www.pelvicpain.org](http://www.pelvicpain.org) by July 26, 2010

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## COMMON PEDIATRIC BOWEL DISORDERS

By, Roseanne Cruz, DPT

According to the International Foundation for Functional Gastrointestinal Disorders (IFFGD), approximately 10-25% of children visiting a pediatric gastroenterologist are complaining of constipation or encopresis (1). Also, 17% of high school students and 8% of middle school students are diagnosed with irritable bowel syndrome (IBS) (2). Functional GI disorders such as functional fecal retention and functional dyspepsia (or recurrent abdominal pain) occur in 10% of the pediatric population (3). "Dysfunctional elimination syndrome (DES) refers to an abnormal pattern of elimination of unknown etiology characterized by bowel and bladder incontinence and withholding... (this pattern)... is usually present in toilet trained children without underlying anatomic or neurologic abnormalities." (4)

Normal bowel function requires intact sensation in the rectum, good pelvic muscle coordination, good body positioning on the toilet, as well as a good diet. Frequency of BMs depends on the individual and can range from 3x/day to 3x/wk (5). When there is a disruption with any of these factors, a dysfunction can result.

Two of the more common types of pediatric bowel dysfunctions are fecal incontinence and constipation. Functional fecal incontinence, also known as encopresis, involves fecal leakage in inappropriate places, which is not due to any neurological or structural issue. Encopresis can be categorized as primary or secondary. In primary encopresis, the child is clean for an interval of no more than 6 months. In a child with secondary encopresis, the child has a relapse of symptoms after being clean for 6 months or longer.

Continued on Page 2



Another common type of bowel dysfunction is constipation. Symptoms of constipation involve painful defecation, palpable abdominal mass, and formed stool masses during rectal examination. Children with constipation may have only 2-3 bowel movements per week with pain or straining and incomplete emptying. Pain with defecation can lead to functional fecal retention if the child starts to avoid defecation out of fear of experiencing pain. Some children may also develop a fear of using the toilet (associating pain or fear of falling into the toilet) and may then only want to defecate in the diaper. Stool backed up in the rectum can also cause pressure on the bladder, causing urinary leakage.

Encopresis can also occur with constipation. In this case, a child with constipation can develop a holding pattern to prevent him- or herself from feeling pain with hard stools. Retaining the stool causes a "plug" which can get stuck in the rectum or further up in the colon. Feces can escape around the "plug."

These types of bowel disorders can be evaluated and treated with physical therapy. Treatment consists of re-educating the pelvic floor muscles and learning proper breathing techniques through the use of biofeedback and verbal cuing. The child needs to learn when and how to relax the pelvic floor muscles during elimination. Treatment may also include changing the child's diet as well as his or her behaviors and educating the parents, or guardian, and their child about toileting posture. Parents should make sure that their child has adequate fiber intake. According to the American Dietetic Association, for ages 3-10, child's age plus 5 equals the amount of grams of dietary fiber for daily intake. The ADA also states that children should drink at least 6-8 8-oz glasses of water daily, depending on their level of activity.

In addition to muscle re-education and dietary changes, the parents and their child should be taught proper toileting postures to ensure full relaxation of the pelvic floor muscles. The parents need to make sure that their child is comfortable sitting on the toilet seat and that he or she does not have a toilet phobia. Biofeedback can be used to help the child see what his or her pelvic floor is doing when they are simulating a bowel movement. It can also be used to train the child to use proper relaxation techniques, strengthening and proper breathing techniques as they sit on a toilet, with the use of whistles or bubbles. The parents and child are also taught exercises to help strengthen, stretch and/or relax weakened and/or tightened pelvic floor, abdominal, back and hip muscles.

At Beyond Basics Physical Therapy, we have highly experienced physical therapists that specialize in the treatment of bowel and bladder disorders in children. We get the child involved with their care as much as possible and we try to make the experience enjoyable for the child by using creative activities and rewards for positive behavior. The physical therapists spend one-on-one time with the child and caregiver to go through a comprehensive treatment plan which may include muscle re-education, manual therapy, diet, exercise and behavioral training. This combination of treatment has proven to be extremely effective, without the use of medication or invasive procedures, for children that suffer from elimination disorders (6, 7, 8).

(1), (2), (3) International Foundation for Functional Gastrointestinal Disorders (IFFGD) <http://www.iffgd.org/site/gi-disorders/kids-teens/>

(4) Nader S, Hoberman A, Wise B, Kurs-Lasky M, Kearney D, Naylor S, Haralam M, Colborn DK, Docimo S. Dysfunctional Elimination Syndrome: Is It Related to Urinary Tract Infection or Vesicoureteral Reflux Diagnosed Early in Life? *Pediatrics*. 2003;112:1134-1137.

(5) Paris Consensus on Childhood Constipation

(6) Paeppe HD et al. Pelvic-floor therapy and toilet training in young children with dysfunctional voiding and obstipation. *BJU International* (2000)85, 889-93.

(7) Laycock et. Clinical evaluation of the pelvic floor. *Pelvic floor re-education: principles and practice*. London. Springer-Verlag. 1994. 42-9.

(8) Croffie, JM et al. Assessment of the effectiveness of biofeedback in children with dyssynergic defecation and recalcitrant constipation/encopresis: does home biofeedback improve long-term outcomes. *Clinical Pediatrics* (2005); 44: 63-71.



### BBPT NEWS: Dustienne Miller, MSPT joins BBPT team

Dustienne Miller graduated with her Masters in Physical Therapy from Russell Sage College. She began specializing in women's health in 2007 by studying with the Herman and Wallace Institute. She has also studied Craniosacral Therapy and Visceral Mobilization with the Upledger Institute. To sharpen her orthopedic skills, she continues her education by taking courses through the Institute of Physical Art.

Dustienne had the pleasure of becoming a certified yoga teacher through the Kripalu Center for Yoga and Health in 2004. Also a professional dancer, her musical theatre credits include the national tour of Fosse and regional productions of Chicago (Roxie), and A Chorus Line (Kristine, Val, Bebe, Judy).

Dustienne passionately believes in the role of physical therapy in a holistic model of care. Helping women navigate through pelvic pain and incontinence is an extraordinary experience and she is grateful to be a part of the knowledgeable and caring staff at Beyond Basics.

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