



Institute for Women's Health Research

Putting Women's Health First

April 2012

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Dear Friends,

Most women do not like to discuss gastrointestinal (GI) disorders and bowel habits but as many as 1 in 5 women suffer from a GI disorder known as irritable bowel syndrome (IBS)-that's twice the amount of male sufferers. To help focus attention on this highly prevalent and disruptive disorder, the [International Foundation for Functional Gastrointestinal Disorders](#) has designated April as IBS Awareness Month.

We recognize that women are often balancing many tasks and as a result take little time for the type of self-care and intervention needed to control a chronic condition like IBS, leading to a cycle of increased symptoms and stress. We are delighted that Laurie Keefer, PhD, Director, Center for Psychosocial Research in GI, offered to write the feature article for this month's e-newsletter. We hope you find it filled with useful information. We also invite you to attend our special public event described below to celebrate [National Women's Health Week](#).

Sincerely,

The Institute staff



INSTITUTE FOR
WOMEN'S HEALTH
RESEARCH™

AT NORTHWESTERN UNIVERSITY

IRRITABLE BOWL SYNDROME: WHY WOMEN DON'T NEED TO SUFFER IN SILENCE

What are the symptoms of IBS?

IBS is characterized by abdominal discomfort, pain and diarrhea, and/or constipation. Seventy-six percent of female sufferers report bloating as one of their most problematic symptoms, affecting their body image and eating behaviors. While IBS affects women across the lifespan, it is most prevalent between the ages of 40 and 50 and a rising number of adolescent girls and young adult women are seeking care for IBS. Women with



IBS experience a reduced quality of life, and cite the loss of control over bodily functions (e.g., incontinence, gas), fear of the unknown, trivialization of their disease by healthcare providers, and fear of being viewed as "needy" or "psychosomatic" as their most common emotional concerns.

What causes IBS?

IBS occurs as a result of a complex interplay between biology and genetics, early life experiences, the way our brain processes information from our gut, and our behavior. Known as the "second brain," the gut has its own nervous system called the enteric nervous system that works in synchrony with our central nervous system. In IBS, this brain-gut pathway is disrupted, usually as a result of some trigger—an infection, a stressor, a new medication, etc. Consider this "perfect storm."

You have had a somewhat sensitive gut since childhood, you get married after twelve fun, but nevertheless stressful, months of planning the perfect day, go on a honeymoon to Bermuda to relax, and pick up a stomach bug on your last day there. You come home, see your internist who prescribes antibiotics which clear up the infection. But, even so, your stomach is still not the same. You feel bloated all the time, gassy, have urgent bowel movements, and start to worry that something else is going on.....

While the factors that cause IBS may be different for each of us, once the disorder is triggered, two processes—visceral hypersensitivity and symptom catastrophizing—keep it going. First, at the level of your gut, visceral hypersensitivity develops when the nerves in your gut become overly sensitive to even the most normal bodily sensations—feeling a little full from lunch turns into abdominal pain, feeling the sensation of stool in your rectum becomes a close call to reaching the bathroom in time, and on and on. Catastrophizing is what happens at the level of your brain as you interpret these sensations as dangerous, and you start feeling fearful that you are going to have symptoms when you are out with friends or where a bathroom isn't readily available, so you start to avoid anything that isn't absolutely necessary. Pretty soon, you may start to feel lonely and depressed and helpless over your bowels.

The role of stress on the development and maintenance of IBS

Gastrointestinal symptoms are not uncommon during moments of stress and anxiety, even when we don't have IBS. However, stress plays a unique role in IBS symptom flare-ups. In other words, if you have IBS, it is important that you are more proactive in managing your stress than the average person. Stress can also affect how much benefit you receive from treatment. One study demonstrated that the presence of a single stressor within 6 months prior to participation in an IBS treatment program was directly associated with poor outcome and higher symptom intensity at 16 month follow-up when compared to patients who did not have such a stressor (1).

There are several reasons why stress is important to our



gut's function. Physiological arousal associated with acute and/or chronic stress directly affects the nervous system, and our sensitivity to pain. When we experience a stress response, our gut shuts down temporarily in order for our body to direct blood flow away from our digestive tract towards other parts of our bodies that we need more-like our heart, brain, and feet. If that response happens often enough, imagine what the stop-start process does to your IBS! When we are under stress, we produce excess stress hormones like [cortisol](#), which can increase our sensitivity to

even the most normal of gut sensations. Finally, we all know that stress makes it harder to take care of ourselves in general.

Medications for IBS

Surprisingly few medical therapies have demonstrated efficacy in randomized controlled clinical trials for IBS (2). Of these, there are the antispasmodics such as hyoscine (generic for Buscopan) which target abdominal discomfort resulting from smooth muscle contractions; however, these are often poorly tolerated because of side effects including dry mouth and dizziness. Peppermint oil shows some promise as a natural alternative to prescription antispasmodics. The antidiarrheal loperamide (generic for Imodium) has been sufficiently evaluated for the treatment of diarrhea-predominant IBS with a reasonable effect on stool frequency and consistency and has shown limited side effects (3). More recently, short courses of nonabsorbable antibiotics such as rifaximin (generic for Xifaxan), previously used for the prevention of traveler's diarrhea, are prescribed for IBS, particularly when bloating is a key feature (3). Sometimes, antidepressant medications are helpful in light of the high association between [serotonin](#) and gut motility. Notably and contrary to popular belief, there is no evidence supporting the use of laxatives for IBS.

Diet, Exercise, and Probiotics

There are still no empirically supported dietary guidelines for IBS despite a host of websites and lay books devoted to this topic. That said, there is emerging evidence that dairy and large quantities of fiber can trigger abdominal discomfort or diarrhea in a subset of patients with IBS. Constipation, on the other hand, can be associated with a lack of adequate fiber intake. Generally speaking, women under age 50 should consume 25g fiber per day and women over 50 need less- about 21g/fiber day. You can calculate your personal fiber requirements [online](#) (4). Carbonated beverages, foods with high methane such as lentils, beans, broccoli, and cabbage, and foods high in carbohydrates or in artificial sugars can increase intestinal gas production. Additionally, caffeine found in coffee and teas, and alcohol can be problematic with IBS. Low carbohydrate diets have been modestly effective for diarrhea in overweight patients (5) and fructose-restricted diets (e.g., [FODMAPS](#)) have also shown some benefit. However, both diets are difficult to sustain for more than a few weeks at a time. Despite the established effects of high physical activity (e.g., marathon running) on gas clearance and improved gastrointestinal motility (6), there are virtually no studies examining the effects of physical activity on IBS. Still, many women choose to restrict physical activity to avoid exacerbation of symptoms. A newer approach to dietary management of IBS includes the [probiotic infantis 35624](#), which has demonstrated superiority to placebo in 5 randomized controlled trials (7)



Behavioral Therapies

Ongoing work at the [Center for Psychosocial Research in GI \(CPRGI\)](#) focuses on the impact of stress and anxiety on women's experience with IBS. Women commonly experience a great deal of pressure and stress balancing numerous responsibilities at home and work including caregiving and managing finances. It is not surprising that extreme thoughts and reactions or negative bias to day-to-day stress or life events can lead to a self-perpetuating cycle of GI symptoms and emotional distress. About 30% of female IBS patients are professional worriers, and unhelpful worry around situations beyond one's control can directly lead to worsening IBS. Other common themes among women with IBS are the need for approval from others, feelings of over-responsibility, and perfectionism.



At Northwestern, the CPRGI implements evidence-based interventions such as cognitive-behavioral therapy (CBT) and gut-directed hypnotherapy as first and second line treatments for IBS. Results from clinical trials featuring these treatments show greater improvement than any of those with the currently available medications for IBS that largely target symptom relief (8). Our CBT program, specifically tailored for IBS, is our preferred psychological treatment in this population. Rather than focusing on psychological distress and problems like depression or panic seen in traditional CBT, CBT for IBS targets

skill deficits common to this patient population and enhances strategies for coping. CBT has demonstrated efficacy against placebo and active control conditions in the treatment of IBS across many delivery formats including group and individual therapy and as a self-administered intervention. We are conducting a large, NIH-funded multisite clinical trial called the [IBS Outcome Study \(IBSOS\)](#) at Northwestern and at the primary site, SUNY Buffalo. For additional information about IBSOS, please visit CPRGI's [website](#). If you are interested in participating, please [contact CPRGI](#) or call a study coordinator directly at (312) 695-6729.

Gut-directed hypnotherapy, recognized widely by patients and gastroenterologists as a viable treatment for IBS, has sustained scientific support since the first published report in 1984 (9). Response rates across numerous case studies and clinical trials are typically above 85%, which is higher than any other currently available medical therapy. Unlike with medications prescribed for IBS, when stopped, the effects of hypnosis remain for up to 5 years (10).

Practical Tips

Below are some scientifically supported tips for managing the effects of stress on your gastrointestinal system.

Start with a Healthy Mindset

- Living stress free is not a realistic goal.
- Feeling stressed over situations is not a sign of weakness-it's a sign you CARE.
- For the most part, we cannot control when or where our stress comes from. What is in our control is how we choose to adapt.

Reduce Arousal and Increase the Flow of Resources to the Gut

- Breathe from your diaphragm, not your chest. Chest breathing keeps you ready to "fight or flight" - digestion requires more energy than that. See Health Tip below on deep breathing.

Instill Structure

- Are you getting adequate sleep?
- Are you eating regularly and in moderation?
- Are you getting enough physical activity?
- Are you getting enough water?
- Are you getting adequate pleasure/down time?

Reduce Stress by Controlling Your Thinking Style

- Worry: Good worry helps us get things done. Bad worry keeps us from moving forward. Stress often increases the likelihood that we engage in bad worry. Be flexible- not everything that you worry about has an actual solution.
- Jumping to conclusions: Example: "I just KNOW my boss will be mad if I don't go to that dinner tonight."
- Be evidence driven: Would this assumption hold up in a court of law?
- Reverse positions: What would you tell a friend in this situation?
- Selling yourself short: You are not new to stress-you have survived it thus far. Just because you feel embarrassed, mad, sad, worried, like a burden, etc., doesn't mean you are. Feelings are not facts. Have faith in yourself to get through the hard times!

Manage the Expectations You Have of Yourself (and Others)

- Do you take on too much responsibility and not delegate?
- Do you try too hard to be a people pleaser?
- Are you too much of a perfectionist?

References

- (1)Bennett EJ, et al. *Gut*. 1998, PMID: 1727204.
- (2)Ford AC, et al. *Vandvik PO. Clin Evid (Online)*. 2010.
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- (7)Brenner DM, et al. . *Rev Gastroenterol Disord*. 2009.
- (8)Ford AC, et al. *Gut*. 2009.
- (9)Whorwell PJ, et al. *Lancet*. 1984.
- (10)Gonsalkorale WM, et al. *Gut*. 2003.

SPECIAL EVENT OPEN TO THE PUBLIC

The Institute for Women's Health Research will host a half-day special event celebrating National Women's Health Week on May 15, 2012. This event will include keynote speaker, Molly Carnes, MS, MD, from the University of Wisconsin, a poster session on current local research in women's health and exhibits promoting women-friendly specialty clinics at Northwestern and other institutions in Chicago. We hope you will join us for this exciting event at Prentice Women's Hospital in Chicago, Illinois! It is free and open to researchers, clinicians, students and the general public but registration is required.

To register for the lecture, to submit a poster, or to display and exhibit, go to our [website](#).

HEALTH TIP

Deep Breathing Technique:

- Find a comfortable, quiet location and lie in a flat or reclined position.
- Place one hand on your abdomen and one hand on your chest.
- Inhale slowly and deeply through your nose into your abdomen to push up your hand as much as feels comfortable. Your chest should only move slightly.
- Exhale through your mouth, making a quiet, relaxing whooshing sound as you blow gently out.
- Your abdomen should rise as you breathe in and fall as your breath out.
- When you feel comfortable with this technique, count 'one' as you breathe in and say 'relax' or 'calm' as you breathe out.
- Focus attention on the relaxing word and tune out any other thoughts
- Count up to 10 and repeat.
- Implement twice a day and whenever you are in stressful situations.



UPCOMING EVENTS

April 7, 2012, 9:00am-3:30pm

[Northwestern Women's Integrative Wellness Conference](#)

Prentice Women's Hospital, Chicago, Illinois

April 10, 2012, 12:00pm-1pm

[Women's Heart Matters: Hypertrophic Cardiomyopathy](#)

Prentice Women's Hospital, Chicago, Illinois

April 12, 2012, 9:00am-4:15pm

[Pain and Palliative Care Conference](#)

Feinberg Pavilion, Northwestern Memorial Hospital, Chicago, Illinois

April 24, 2012, 12:00pm-1pm

[IWHR Monthly Forum--Estrogen and the Skin: Friend or Foe?](#)

Prentice Women's Hospital, Chicago, Illinois

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