The Digestive Center for Wellness

Presents

Getting Regular

Master your constipation and banish your bloating for good!

Dr. Robynne Chutkan, MD, FASGE

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Robynne Chutkan, MD, FASGE, is an integrative gastroenterologist and the author of the digestive health books *Gutbliss*, *The Microbiome Solution*, and *The Bloat Cure*. Her new book, *The Anti-Viral Gut* will be released in Fall 2022.

Dr. Chutkan received her bachelor's from Yale University and her medical degree from Columbia College of Physicians and Surgeons, where she also did her internship and residency and served as chief resident. She completed her fellowship in gastroenterology at Mount Sinai Hospital in New York. Dr. Chutkan has been on the faculty at Georgetown University Hospital since 1997. In 2004 she founded the Digestive Center for Wellness, an integrative gastroenterology practice dedicated to uncovering the root cause of GI disorders. Dr. Chutkan incorporates microbial optimization, nutritional therapy, mind-body techniques, and lifestyle changes into her therapeutic approach to digestive disorders.
A former Board member of the American Society for Gastrointestinal Endoscopy (ASGE), Dr. Chutkan also chaired the ASGE Training Committee and Public Relations Committee. She has authored dozens of academic journal articles and book chapters and lectures frequently on IBD, the microbiome and gut health throughout the United States and Europe.

Dr. Chutkan has been the medical expert on The Today Show, CBS This Morning, The Doctors, The Dr Oz Show, The Megyn Kelly Show, and has her own PBS Special entitled "Gutbliss". She's been interviewed by numerous publications, including the NYT, WSJ, The Atlantic, and the Washington Post, and served as on-air talent and a medical consultant for Discovery Health Channel. An avid squash player, runner and yogi, Dr. Chutkan is passionate about introducing more dirt, sweat and vegetables into people's lives.

A MESSAGE FROM DR. CHUTKAN

30% of the US population suffers from persistent constipation and bloating, spending over $30 billion dollars a year looking for solutions, from health coaches, to supplements, to naturopathic doctors to incredibly restrictive diets and even prescription medications. Yet still no relief!

What's going on? First, and most importantly, constipation and bloating have multiple root causes, so if you don't identify WHY you're having symptoms, you aren't going to find a solution that works. Second, many of the remedies marketed for bowel irregularity and bloating are designed for other GI problems, like heartburn or gas, so they're unlikely to be effective. Third, your medicine cabinet can actually be the problem, rather than the solution, particularly if you're taking multiple medications or supplements that may be interacting to cause a slow-down on your digestive superhighway. Learning which drugs and combinations decrease gut motility is essential to getting things moving again. Finally, successful management of bloating and constipation often requires more than just a pill, so embracing a multi-pronged holistic approach is key to getting symptoms under control. There are lots of safe and effective remedies for

irregularity that I'll be telling you about in this course, but they all work better when you're paying attention to your diet and habits. Small tweaks in these areas can lead to big results in the bathroom!

The most important thing you can do to solve your constipation and bloating and get regular (for good!) is to identify the root cause(s) of your symptoms and implement solutions that are specific to your situation. What works for someone who's suffering from an underactive thyroid isn't going to be effective for someone with an extra-long colon, or diverticulosis, or who's woefully underhydrated. With almost 30 years of experience relieving chronic constipation and bloating using integrative methods, I'm excited to help you understand what your gut is trying to tell you - and provide you with the tools you need to restore regularity and get rid of your bloat for good.

Robynne Chutkan, MD, FASGE
Founder, Digestive Center for Wellness

Getting Regular

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"If you're not moving, neither are your bowels."

-Dr. Robynne Chutkan

PART 1

FINDING THE ROOT CAUSE

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part 1

OVERVIEW & CAUSES

OVERIEW

If you're constipated you've come to the right place! It's one of the most common complaints in my gastroenterology practice, and one I love to treat because there are so many satisfying solutions. Let's start with a definition: fewer than three per week is the standard textbook definition, but you can have a bowel movement every single day and still be constipated. We call this tenesmus or incomplete evacuation, and it's the most common form of constipation. You squeeze out a small stool but can tell there's more on the launch pad that's just not coming out, and in addition to being constipated, you're bloated and uncomfortable too. Your digestive tract isn't a mysterious black box - it's a predictable logical organ that relies on the right inputs in order to have the right output. But what exactly are those inputs - and what else can go wrong and cause traffic jams on your 30-foot digestive superhighway? Figuring out the root cause of the slowdown (there are

multiple factors that can conspire to constipate you as you'll see in the next section!) is the key to getting things moving. Let's get started!

CAUSES

In this course we will begin by reviewing the following common causes of constipation (more serious "red flag" causes will be addressed later in this section):

Common Causes of Constipation

- Anatomy
- Anismus
- Bacterial imbalance
- Dehydration
- Depression
- Diet
- Diverticulosis
- Gluten intolerance/celiac disease
- Holding
- Hormonal changes
- Irritable bowel syndrome
- Medicine cabinet
- Pelvic floor disorder
- Pregnancy
- Sedentary lifestyle
- Slow transit/colonic inertia/dysmotility
- Stress

ANATOMY

Did you know women have longer colons than men - on average four to five inches longer? That may not seem like much, but it can cause a lot of extra looping (like a roller coaster) and twists and turns - what I like to call: The Voluptuous Venus Colon.

Women also have a wider, deeper, pelvis in order to accommodate a fetus during pregnancy. This means that in women, the colon is located low down in the pelvis, where it has to compete for space with the reproductive organs. Men have a narrower pelvis so most of their colon ends up in the roomier abdominal area, and when it is in the pelvis, the only other thing taking up space there is a very small prostate gland.

Men also have higher levels of testosterone, which causes their abdominal muscles to be tighter and stronger. In women, lower testosterone levels means a weaker abdominal wall - kind of like a stretched-out Spanx. That leads to lots of looping and

bloating of the intestines because you don't have a strong abdominal wall binding everything in nice and tightly.

These three factors – a longer colon, a wider pelvis, and lower levels of testosterone – unfortunately all add up to lots more bloating and constipating for women.

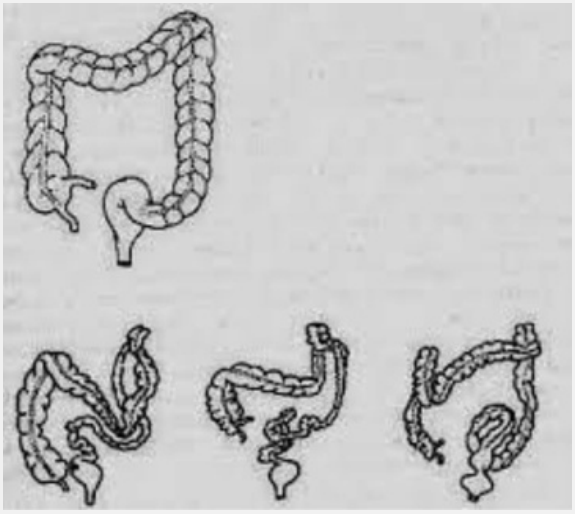
Case Study

Anne & The Voluptuous Venus Colon

Anne is a wisp of a woman who's been terribly bloated and constipated for as long as she can remember. Two tablespoons of psyllium husk (soluble plant fiber that adds bulk to the stool) and one tablespoon of ground flax seed in the morning, followed by two capfuls of a polyethylene glycol osmotic cathartic (a powerful laxative), plus three stool softeners and six prunes at night—and she still has difficulty having a bowel movement. She's had several visits to the emergency room after nearly passing out from abdominal pain. Each time, the main finding on X-ray was a colon full to the brim with stool. We take a dietary history. Impeccable: she's quasi-vegetarian and her standard lunch is brown rice, lentils, and kale. She's two years shy of being the age for colon cancer screening, and given the findings on X-ray, I recommend a colonoscopy to make sure there's no obstructing lesion inside her colon.

On the day of the procedure, the anesthesiologist gets Anne nice and comfortable, and within a few minutes she's asleep and I begin my journey through her colon. I find this procedure fascinating, even after performing thousands of them, because just as every patient is unique, so every colon is unique in its own way. Anne's colon is an impressive maze of twists and turns and switchbacks and loops that are very difficult to navigate. After more than three times the amount of time it usually takes me to complete a colonoscopy, we are finally finished.

The diagnosis: a voluptuous Venus colon – a twisty, looping colon that's common in women due to some important anatomical differences: a longer colon, a wider pelvis, and lower levels of testosterone compared to men. But it's not all bad news; there's a lot you can do to help decompress your curvy colon – and these techniques work for both women and men.



Examples of a voluptuous Venus colon.

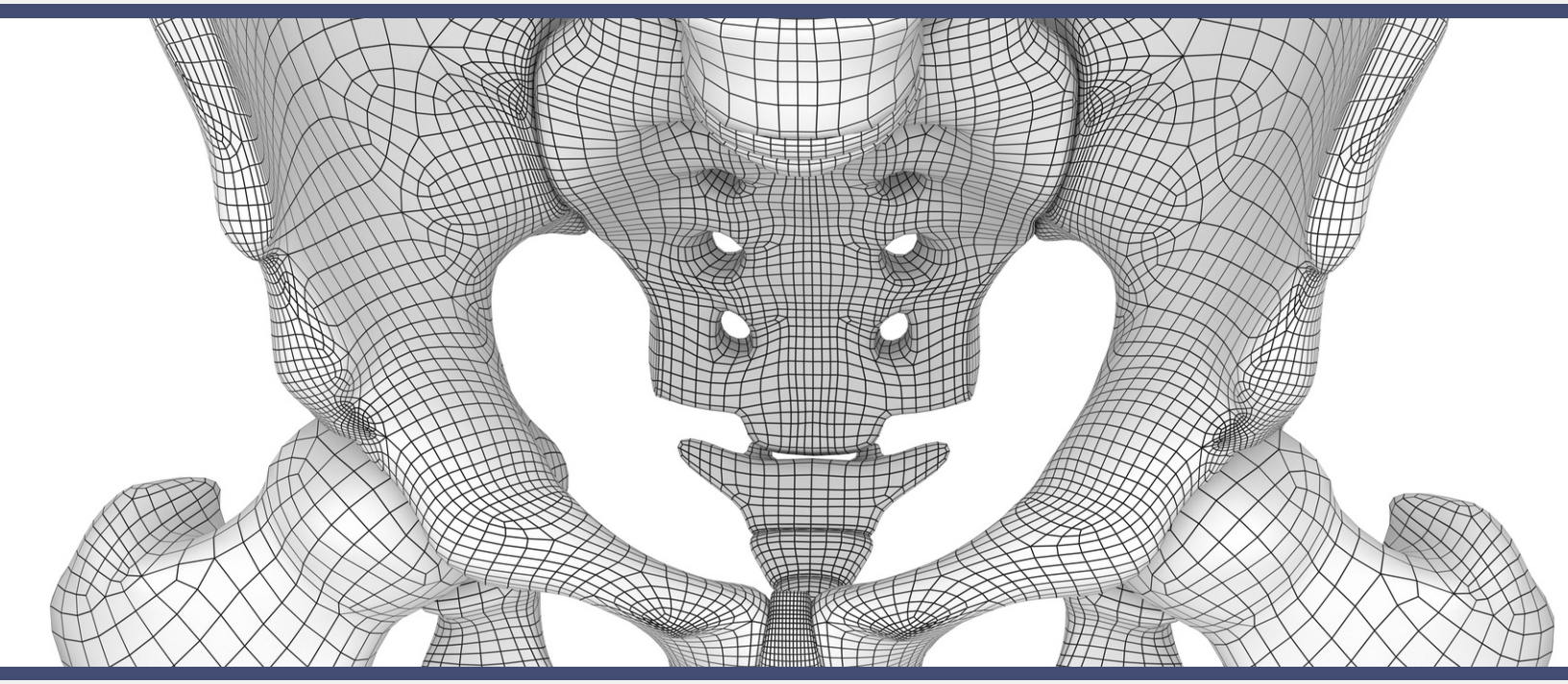
Anne was thrilled to hear she didn't have colon cancer or any other worrisome condition. As it turned out, some of the positive things she was doing needed a little tweaking to help maximize their benefits. She was eating a ton of fiber, but she was doing it all at one time, which was contributing to her bloating as the bulky stools were getting stuck in the hairpin turns of her twisty colon. I had Anne modify her diet to keep her total intake of fiber the same but spread it out throughout the day and couple it with several glasses of water to help wash it all down. As a result, she was able to stop the nighttime stool softener and osmotic cathartic.

Knowing the diagnosis was really helpful to Anne in managing her symptoms. When she felt her bowels getting backed up and started to become really bloated, she'd do a liquid diet for a day, drinking primarily green veggie juices and broth, sometimes with a couple doses of the cathartic to help clean things out. Her colon still required a lot of attention, but there were no more really bad episodes of pain or trips to the emergency room.

On occasion I've had to prescribe a full bowel prep for patients with a voluptuous Venus colon filled with stool, but I always recommend not letting things get to that point by doing a day or two of liquids, instead of blasting your bowels with osmotic cathartics.

A longer colon, a deeper pelvis, a less defined abdominal wall, and hormonal influences—all of these factors can conspire to constipate and bloat us. But knowing what's going on inside can help you manage your bloat—including figuring out when to lighten up your diet to give your curvy colon a chance to decompress.

ANISMUS



Anismus is a frequent but underdiagnosed cause of constipation and bloating. It goes by a lot of different aliases: dyssenergic defecation, inappropriate puborectalis contraction, puborectalis syndrome, paradoxical puborectalis, pelvic floor disorder, spastic pelvic floor syndrome, and anal sphincter dyssenergia.

All refer to the same thing: the pelvic floor muscles don't relax when you're trying to have a bowel movement. This makes getting the stool out very challenging. Dehydration and inactivity are risk factors for anismus, but holding and anxiety about bowel movements are also common causes. An anal fissure that causes pain with the passage of stool can also be a cause. A lot of people diagnosed with garden-variety constipation actually have anismus. Laxatives and bulking agents typically don't bring relief unless the lack of muscle relaxation is addressed, too. In fact, people with undiagnosed anismus may get worse when prescribed high doses of fiber because

now they're plugged with a bigger plug and their pelvic muscles still aren't relaxing—making them feel even more bloated and uncomfortable. They're often frustrated and hopeless about their inability to have a normal bowel movement, and their social life may suffer because they feel chained to the toilet. Fortunately, once diagnosed, anismus can be successfully treated with modalities like biofeedback, which we'll discuss in the therapeutics section of this guide.

BACTERIAL IMBALANCE

A well-functioning digestive system relies on the delicate balance between good and bad bacteria, without any one species becoming too over- or underrepresented. When you take an antibiotic, you may experience nausea, diarrhea, or vomiting after just a couple of doses. But you may not realize that your long-term bloating and constipation could also be a direct result of antibiotics—those you took recently, as well as those from years or even decades ago. Antibiotics are supposed to kill pathogens, that is, bad bacteria, but they also indiscriminately kill off huge numbers of the good bacteria that are essential for a healthy gut. Unfriendly fungal species and other non-desirables quickly proliferate to fill the void created by the loss of good bacteria. Even previously benign species, if their numbers increase too much, can become problematic. The result is dysbiosis, a state of bacterial imbalance and one of the commonest causes of bloating and GI upset. Dysbiosis is often associated with motility disturbances which can lead to chronic constipation in some, and diarrhea in others.

Antibiotics aren't the only cause of dysbiosis; acid-blocking medications that change the pH of the stomach and make it more hospitable to invading bacteria, and a diet high in sugar and fat are also common causes of dysbiosis.

DEHYDRATION

We don't always pay as much attention to what we're drinking as we do to what we're eating. You may think that as long as you're drinking something, you're hydrating yourself, regardless of what that something is. Liquids are essential for moving the products of digestion smoothly through the intestines, but if you're drinking the wrong ones (caffeinated beverages, soda, soy milk, alcohol, juice, sports drinks, dairy, or high sugar kombucha for example), you could actually be causing dehydration and bloating.

Clearly the liquid you should be drinking the most of is water. More than half of our body consists of water, and since there are so many factors in daily life that cause dehydration, from medications to caffeine to heaters to air conditioners to simply not enough intake, you need to be sure you're replenishing your body's water supply. Drinking lots of water is one of the best things you can do for constipation. Water promotes good digestion, keeping the intestines moist and the contents moving

briskly, which prevents bloat-causing backups. I recommend at least 80 ounces of water per day, although the requirement will vary based on the climate you live in, how hydrating or dehydrating the rest of your diet is, and what your fluid losses are.

DEPRESSION

Not only can depression itself lead to constipation, but many of the antidepressant drugs on the market are also associated with constipation. Opting for “talk therapy” over medication when appropriate and getting regular vigorous exercise may help treat both your depression and your constipation.

If you read through the psychiatric literature, you’ll find a lot of articles about long-distance runners getting depressed when they stop running. If you examine this phenomenon carefully, what becomes clear is that for many it’s not the absence of exercise that’s causing their depression; it’s the presence of exercise that’s treating it. Many people have somehow, consciously or subconsciously, figured out that running and other forms of exercise improve their mood and keep their depression under good control. I’ve seen the same phenomenon in runners who develop constipation after an injury sidelines them. For many, a daily run is their foolproof guarantee of satisfaction in the bathroom as well as a way to manage their depression.

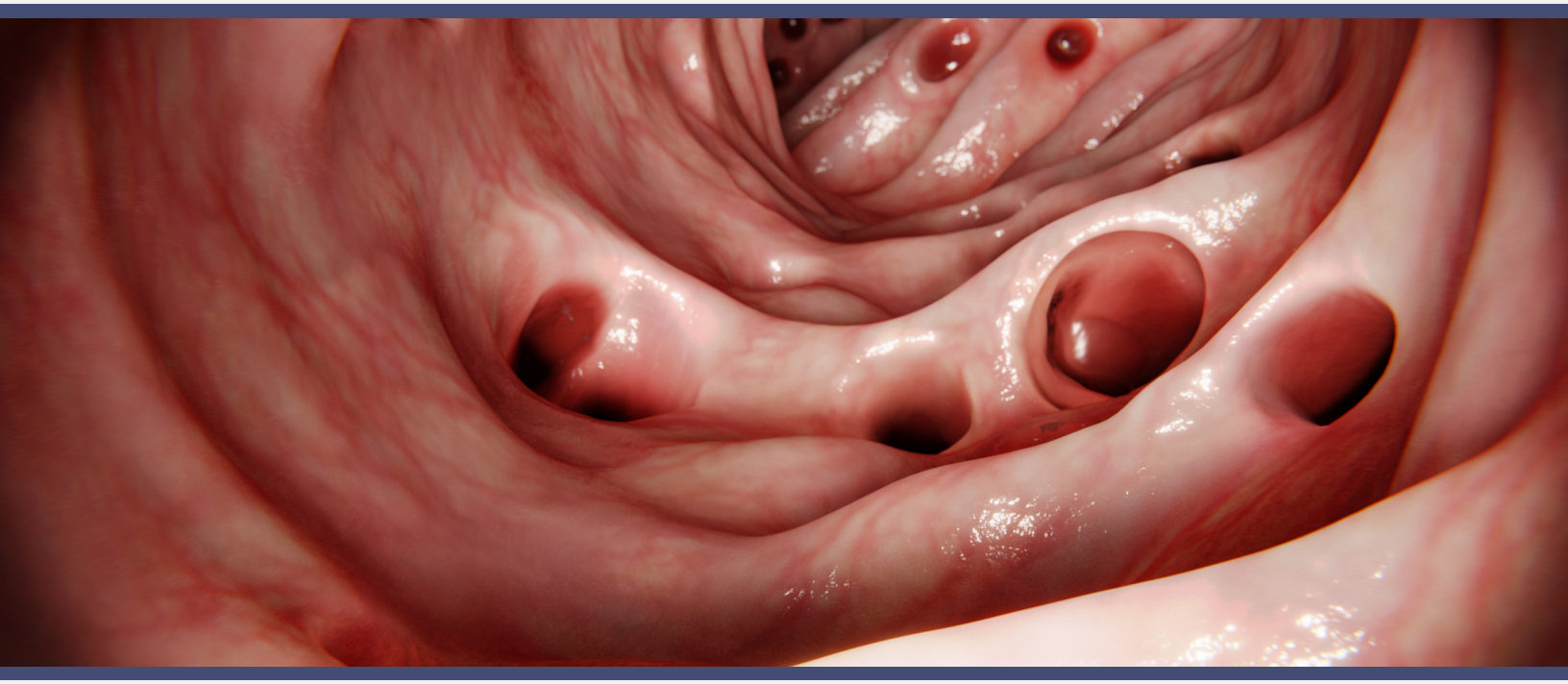
DIET

51 percent of the standard American diet consists of refined and processed foods, 42 percent is dairy and animal products, and only 7 percent comes from fiber-containing fruits and vegetables - which are the very foods we should be focusing on if we want to have great bowel movements. Remember: garbage in; garbage out.

We eat only a fraction of the recommended 25-30 grams of daily fiber, and we pay for it in the bathroom with hard, small, and difficult-to-pass stools. Lots of patients tell me they eat tons of fiber, but they're referring to things like iceberg lettuce in salad and processed fiber in cereal that don't help to bulk your stool (or contribute much to your overall health). Vegetables, whole grains, legumes, and most fruits are filled with fiber and other nutrients that are key ingredients for improving constipation.

We know dairy can cause gas, bloating, and diarrhea in people who are lactose intolerant, but it can also cause constipation. Diets high in cheese and other low fiber/high-fat foods like meat take longer to digest and slow down motility. Plus, they leave less room on your plate for the high-fiber grains, legumes, and vegetables that help to relieve constipation. If you're on a Paleo, ketogenic, or other low-carb diet, you may really be feeling the effects in the bathroom - and not in a good way! Limiting carbs - especially the healthy ones like fruits, and complex high-fiber carbs like brown rice and oatmeal - can cause serious constipation because there isn't enough fiber to create bulk in your stool and so things end up getting stuck in transit.

DIVERTICULOSIS



The presence of small pockets in the colon that can fill with stool— otherwise known as diverticulosis is one of the commonest causes of a change in bowel habits in people over fifty. Often there are multiple, small, incomplete bowel movements that are difficult to expel, so although there may be frequent passage, there is usually a feeling of constipation and bloating from stool being stuck and incomplete evacuation.

Diverticulosis is a result of a diet that's too low in fiber and too high in animal products. High pressure develops in the wall of the colon when it has to contract more vigorously to expel small, hard stool characteristic of a low-fiber diet. This leads to small bulges, which eventually become the orifices of diverticulosis, frequently referred to as pouches, pockets, or potholes.

In sub-Saharan Africa and other parts of the world where people eat a diet high in unprocessed fiber with lots of root vegetables and legumes, they have large bulky stools two or three times a day and very low rates of diverticulosis (and colon cancer). These impressive stools drop effortlessly from the rectum, requiring no vigorous contractions and leaving no messy residue requiring reams of toilet paper, a phenomenon I refer to as the clean wipe. In the United States we recommend eating between 25 and 35 grams of fiber a day, but if you're eating anything resembling the Standard American Diet (SAD), you're only getting about 10 grams and you're probably suffering from smeary stools and messy cleanup. You're also at risk for developing digestive problems like diverticulosis and serious constipation.

GLUTEN INTOLERANCE/ CELIAC DISEASE

These days it seems like everyone is on a gluten-free diet, and chances are you know someone who's been diagnosed with celiac disease, is gluten sensitive, or has an allergy to wheat.

Celiac disease is an autoimmune digestive disorder that causes damage to the lining of the small intestine as a result of eating gluten, a protein found in wheat, rye, and barley. Almost 1 percent of the population in America has celiac disease, and millions more are intolerant of gluten.

Although celiac disease was originally thought of as a wasting illness with diarrhea and weight loss caused by malabsorption, these days constipation, bloating, and weight gain are among the most common symptoms, partly because gluten-containing grains themselves can be constipating, even in the absence of celiac disease or gluten intolerance. The weight gain happens because wheat products

release a tremendous amount of glucose into the bloodstream when digested. The most common question from people diagnosed with a gluten-related disorder is whether they need to completely avoid gluten. It depends. If you have celiac disease, the answer is yes. If you have gluten sensitivity, your symptoms should be your guide. Many of my gluten-sensitive patients tolerate inadvertently ingesting a bit of gluten or even plan to indulge from time to time, knowing they'll have symptoms. We don't think that eating a small amount of gluten in this setting results in any permanent damage in people who don't have celiac disease. But for most people who are gluten-sensitive, once they eliminate gluten, they feel so much better, they can't be persuaded to reintroduce it.

HOLDING

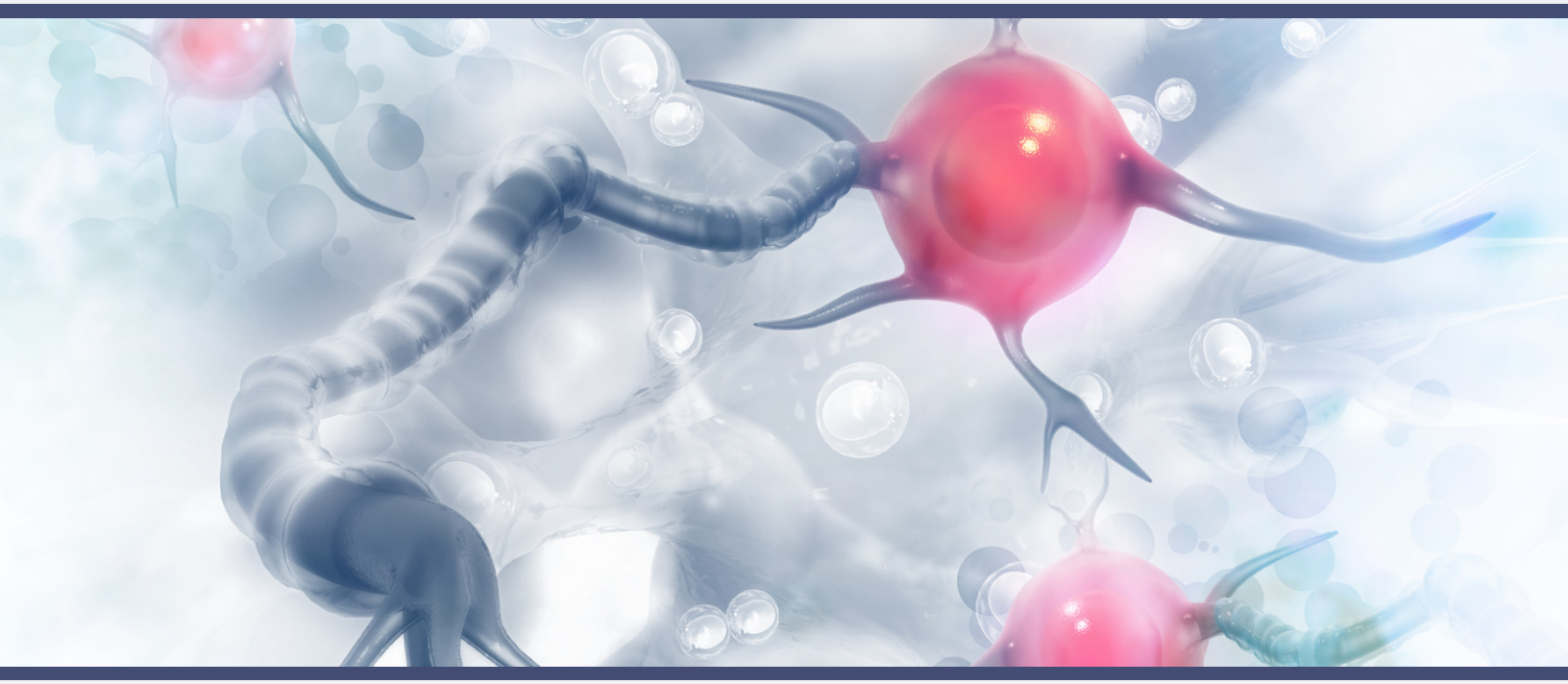
One of the most important things you can do to prevent constipation is to heed your body's call to move your bowels when it first happens. Ignoring that signal and holding stool in when it's trying to come out causes all sorts of problems, including something called reverse peristalsis, where stool is pushed back up into the colon.

The longer you hold the stool in, the more water is extracted from it and the harder it gets. You also totally confuse your rectal muscles that are now being clenched tight, despite signals from your brain that they should be relaxed and opening.

One of the first questions I ask constipated patients is whether they were holders when they were younger, meaning, when they felt an urge to go, did they frequently ignore it? This is common in girls, who tend to be more fastidious about where they use the bathroom. Kids spend a lot of their time at school where the bathroom situation is usually far from ideal: the facilities sometimes aren't that clean, they're

not that private (you can see through the space between or under the doors), you can hear and smell what's going on, there may or may not be toilet paper, there's constant anxiety about people coming in, and concern about finishing in time to get to class. Not to mention the utter panic if you have an urgent call during class and you have to raise your hand and ask—out loud—for permission to go to the bathroom. Many of my patients tell me they never, ever used the bathroom at school, allowing reverse peristalsis to flourish as unheeded urges forced stool in the wrong direction. This trend can continue into adulthood and is one of the common causes of chronic constipation.

HORMONAL CHANGES



Many women report a change in bowel habits before their period, with a worsening of constipation as well as bloating and water retention. Menopause conspires to expand our waistline, increase water retention and gas, and slow down bowel activity, making us more constipated and bloated. That's because of fluctuating hormone levels and a phenomenon called estrogen dominance, which begins several years before we actually stop menstruating.

An underactive thyroid gland, which can be subclinical and not detected by standard blood tests, is another common cause of constipation.

Case Study

Sherry & Hypothyroidism

Sherry had been diagnosed with an underactive thyroid— hypothyroidism—in her thirties, shortly after her second child was born, and had been on thyroid replacement therapy ever since. Her labs were checked by her endocrinologist every six months and, after she'd been on medication, they showed normal amounts of T3 and T4, the two main thyroid hormones. Her thyroid stimulating hormone (TSH), which is produced by the pituitary gland in the brain and tells the thyroid how much hormone to make, was also in the normal range. As a result of treatment, Sherry was what we call euthyroid, meaning she had adequate levels of thyroid hormones in her blood, even though in her case they were being supplied by a pill rather than by her thyroid gland.

If you have an underactive thyroid gland, your TSH will be high because your pituitary will be making and sending lots of TSH to your thyroid in an effort to stimulate it and get it to produce more T3 and T4.

If you have an overactive thyroid gland, your TSH will be low because your pituitary will sense the high circulating levels of T3 and T4 and turn down production of TSH.

If you have a normally functioning thyroid gland, your body continually assesses how much thyroid hormone is present and turns TSH production up or down accordingly. These are called feedback loops and are in place to prevent over- or underproduction, and to make sure that your body has access to the right amount of hormones depending on its needs.

While Sherry's labs consistently showed normal amounts of thyroid hormone, she didn't feel normal, and she hadn't in the last ten years since she was first diagnosed. Her initial symptoms had been bloating, exhaustion, constipation, low libido, feeling cold all the time, and weight gain. Her skin was dry and itchy, and she noticed she

was losing the outer edges of her eyebrows. At first she thought her symptoms might be related to having just had a baby, but a year later, when things still hadn't improved and her bloating was worse, her doctor ordered blood work that revealed a poorly functioning thyroid gland.

The timing of her diagnosis wasn't that surprising. During pregnancy your body requires more thyroid hormone, so mild hypothyroidism that may not have been noticed before may become clinically apparent. Iodine deficiency is the most common cause of hypothyroidism worldwide, but autoimmune conditions like Hashimoto's thyroiditis are common around pregnancy, and hypothyroidism is much more common in women than men.

Sherry was started on the standard treatment: a synthetic form of thyroid hormone replacement (levothyroxine), and she had been taking it ever since. While some of her symptoms had improved, she still felt puffy, bloated, and tired.

If your body were an airport, your thyroid gland would be air traffic control, secreting tiny bursts of hormone here and there to rev up your metabolism when you're busy and your body needs a boost, and dampening down production when you're asleep or at rest and need a little less. A pill once a day doesn't come close to replicating the body's natural ability to ramp up or down thyroid hormone production. Even when Sherry's dose was increased, she still felt lethargic and bloated.

An underactive thyroid gland slows down a lot of your bodily functions, including lymphatic drainage, leading to fluid retention and excess water weight. This causes a puffy feeling all over, particularly in your abdominal area, which is why bloating is so common. Hypothyroidism can also contribute to bloating by slowing down transit through the colon, causing constipation. Even when people are on thyroid replacement therapy, as Sherry was, the bloating and puffiness often remain.

Sherry wanted to know what else she could do to optimize her thyroid function and improve her bloating and constipation, since the medication didn't seem to be helping much with those symptoms. My experience with hypothyroidism and bloating is that medication rarely completely reverses the symptoms, even though it can improve them significantly. The hugely synergistic effect of diet and lifestyle, however, can't be emphasized enough. I recommended a gluten-free diet and cutting out other pro-inflammatory foods like refined sugar, as well as getting more regular exercise. My other recommendation was that she see a therapist for counseling and consider starting a meditation practice, since she was under a lot of stress—one of the exacerbating factors for thyroid disease.

IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome (IBS) involves abdominal pain or discomfort that's usually associated with constipation, diarrhea, or both, and virtually everyone complains of bloating. IBS is really a set of symptoms, the cause(s) of which can vary tremendously from person to person, rather than a definitive disease or diagnosis.

If you slice up the IBS pie and take a good look, you actually find lots of potential explanations for what might be causing symptoms: gluten sensitivity, parasites, bacterial overgrowth, leaky gut, food sensitivities, side effects of medications, etc. Motility disturbances that lead to constipation are common in IBS.

IBS causes real symptoms and real suffering, and it's absolutely essential to figure out why, rather than just accept IBS as the diagnosis and resign yourself to a life of pharmaceutical intervention. Remember, IBS is a description of your symptoms (your bowel is irritable), not what's causing them (why is your bowel irritable?).

MEDICINE CABINET

Many medications and supplements can cause constipation. It's important to know what you're taking, if it may be contributing to your constipation, and if so, if the drug is something you can taper or do without altogether.

Use the checklist on the next page to assess if any medications in your cabinet could be contributing to your bowel irregularity.

If you are taking one or more of these medications, discuss with your health care provider whether they’re truly necessary, or whether they could be safely discontinued or the dose decreased.

Checklist

MEDICATIONS THAT CONSTIPATE

- [ ] Tricyclic antidepressants (Elavil, Pamelor)
- [ ] Blood pressure meds (calcium channel and beta blockers)
- [ ] Opioid pain relievers and codeine
- [ ] Iron supplements
- [ ] Urinary incontinence meds (Ditropan, Detrol)
- [ ] Antihistamines (Benadryl, Zyrtec)
- [ ] NSAIDS (Ibuprofen)
- [ ] Nausea meds (Zofran)

How To Treat

Medication Induced Constipation

Medication-induced constipation is a common problem in those taking the medications mentioned above. In fact, a January 2019 study found that approximately 40% of opioid users experience chronic constipation.

When treating medication-induced constipation, here's what I recommend:

1) Work with your healthcare practitioner to wean off the medication as soon as possible - ask about non-narcotic forms of pain relief that won't affect your bowel motility.

2) In the meantime, **try to take the minimal dose** - less constipation-causing medications in your system means less constipation.

3) Increase your motility by **increasing your physical activity**, **drinking more water**, and **eating more fiber** (focus on whole food sources like vegetables and beans).

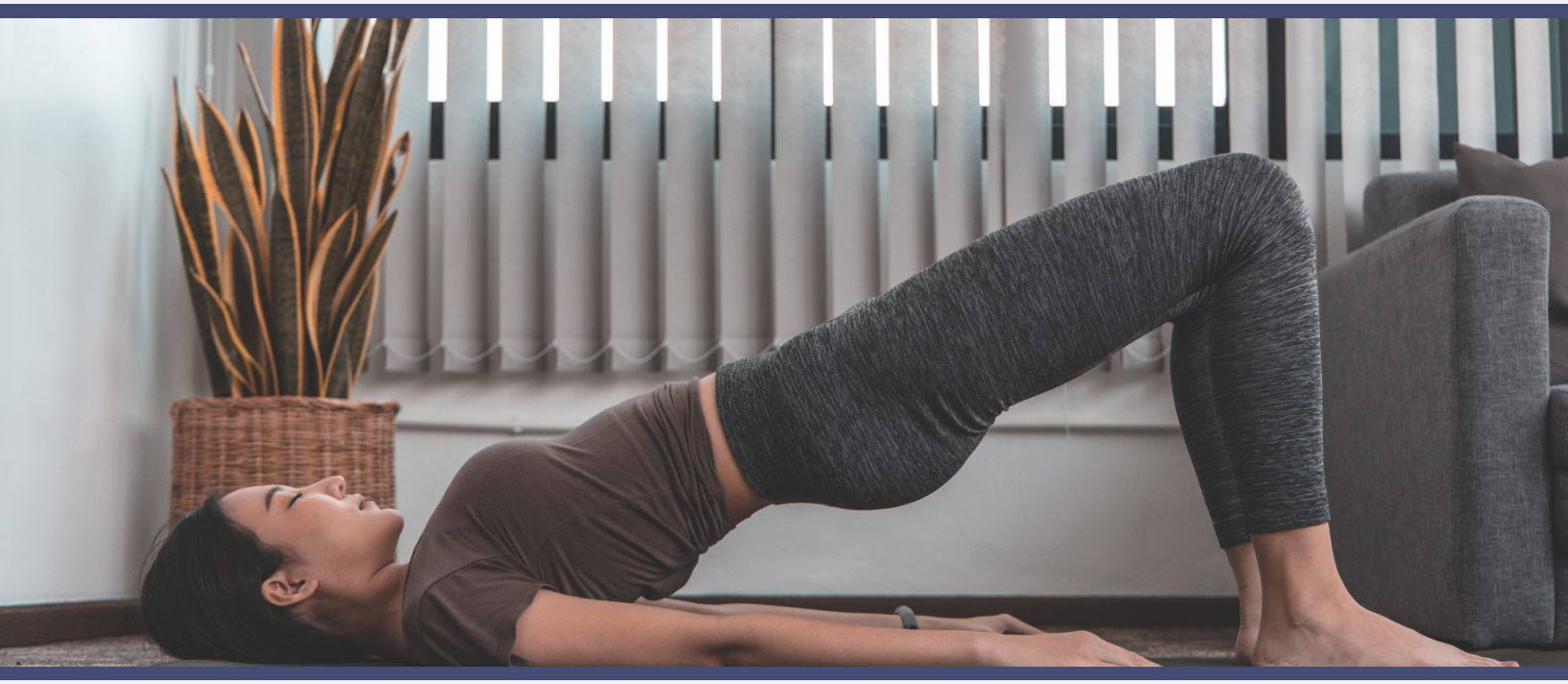
4) Try a **natural motility agent** like ginger.

5) Help move things to the finish line by making our **Gutbliss Green smoothies** that contain lots of liquids, greens and ginger. Consume one daily.

6) Limit your fat consumption (think dairy, animal protein, and processed fats) which tends to slow down motility - this may be a great time to go more plant based!

You may also want to consider biofeedback if these recommendations don't offer enough relief. Biofeedback helps treat constipation by training the mind to voluntarily control the muscular and nervous integrity of the pelvic floor. A May 2019 study found that some medications not only slow down motility and cause constipation but can also affect pelvic floor function and lead to higher rates of dyssynergic defecation (difficulty passing stool because of pelvic floor muscular and nervous dysfunction).

PELVIC FLOOR DISORDER



Pelvic floor disorders are what happen when things literally start to go south. Your rectum, bladder, and reproductive organs are supported by muscles and connective tissue that keep them in place, sort of like a hammock that everything rests on. Pregnancy, straining, large-birth-weight babies, gynecological surgery, and aging can all weigh the hammock down, creating weakness in the pelvic floor.

Urine leakage is the most common complaint, but stool leakage or constipation can also develop. Keeping the stool soft and bulky so it's easy for weakened muscles to expel is ideal. But if it's too soft it can become pasty and even more difficult to get out, and if it's too loose it can leak out, so knowing what to eat (and drink) for optimal stool consistency is key. Kegel exercises to strengthen the muscles are helpful, and like for anismus, biofeedback can also be tremendously helpful for pelvic floor disorders.

PREGNANCY

There are multiple causes of constipation during pregnancy, including: rising progesterone levels that relax smooth muscle and may decrease motility; morning sickness resulting in nausea, vomiting, and dehydration; the pressure of the expanding uterus on the rectum; prenatal vitamins that may contain iron and calcium; and a decrease in activity level.

The combination of constipation and straining plus pressure from the uterus often results in hemorrhoids. A high-fiber diet, staying well hydrated, and maintaining some degree of physical activity are essential for maintaining regular bowel function during pregnancy.

SEDENTARY LIFESTYLE

A sedentary lifestyle can be a major contributor to slow transit through your GI tract. Exercise increases production of nitric oxide, a chemical that relaxes the smooth muscles of the digestive tract, which stimulates peristalsis. It's an important tool in combating chronic constipation.

The GI tract is mostly smooth muscle, which contracts involuntarily, unlike the biceps and hamstrings, which are skeletal muscles under voluntary control that can be directed by us to contract or relax. So, if the muscular contractions of peristalsis happen involuntarily, what's the connection between physical activity and gastrointestinal fitness? Well, despite the fact that peristalsis occurs without our effort or consciousness, our level of physical activity has a profound impact on the involuntary muscle contraction of our GI tract. In fact, exercise is one of the most important stimulators of peristalsis. As I'm fond of saying: if you're not moving, neither are your bowels!

SLOW TRANSIT/COLONIC INERTIA/DYSMOTILITY

Dietary factors like not consuming enough fiber and water are huge causes of slow transit, but so are medications that slow down peristalsis, including narcotic pain medications, antidepressants, vitamins that contain iron, calcium channel blockers, and aluminum-containing antacids. It's a long list, so the medicine cabinet is always a good place to look if you have slow transit. Hormonal changes, especially around menopause, and systemic conditions like an underactive thyroid that slow everything down also contribute to slow transit.

Diabetes can affect the nerves that control gut motility and result in things either moving too fast (diarrhea) or too slow (constipation). Long-term laxative use, particularly of stimulant laxatives, can lead to colonic inertia where the bowels become less responsive and require increasing doses of laxative for defecation to occur.

STRESS

Our adrenal system has evolved powerfully to protect our survival. In times of stress or threat, it diverts resources from systems such as the digestive tract, so that all energy and attention can be focused on the stressor at hand. Then, once the danger passes, the relaxation response kicks in, allowing everything to get back to a normal, mellow state.

But modern life tends to keep many of us constantly revved up. Our body experiences this as an onslaught of one stressor after another. Being in a chronic fight-or-flight, stressed-out state can have devastating effects on the body. It impairs our ability to think clearly; decreases thyroid function, immunity, and bone density; and increases blood pressure, blood sugar, and accelerates the aging process so we don't just feel stressed out, we look it, too. Stress even affects weight distribution, increasing deposition of the dreaded belly fat that's associated with metabolic syndrome and a higher chance of dying sooner rather than later. Stress also worsens virtually every

digestive condition, and constipation is no exception. Stress can disrupt the normal hormonal messages throughout your gut that are important for bowel regularity and suppress your urge to evacuate.

Being in unfamiliar surroundings or disrupting your normal routine with travel will often result in constipation due to a change in diet, anxiety over using unfamiliar bathroom facilities, jet lag, and dehydration.

Checklist

CONSTIPATION CAUSES

Check all causes that could be contributing to your situation.

- [ ] Anatomy
- [ ] Anismus
- [ ] Bacterial imbalance
- [ ] Celiac disease
- [ ] Dehydration
- [ ] Depression
- [ ] Diet
- [ ] Diverticulosis
- [ ] Gluten intolerance
- [ ] Holding
- [ ] Hormonal changes
- [ ] IBS
- [ ] Medications
- [ ] NSAIDs
- [ ] Pelvic floor disorder
- [ ] Pregnancy
- [ ] Sedentary lifestyle
- [ ] Stress

3

SIGNS & SYMPTOMS

Signs of constipation include:

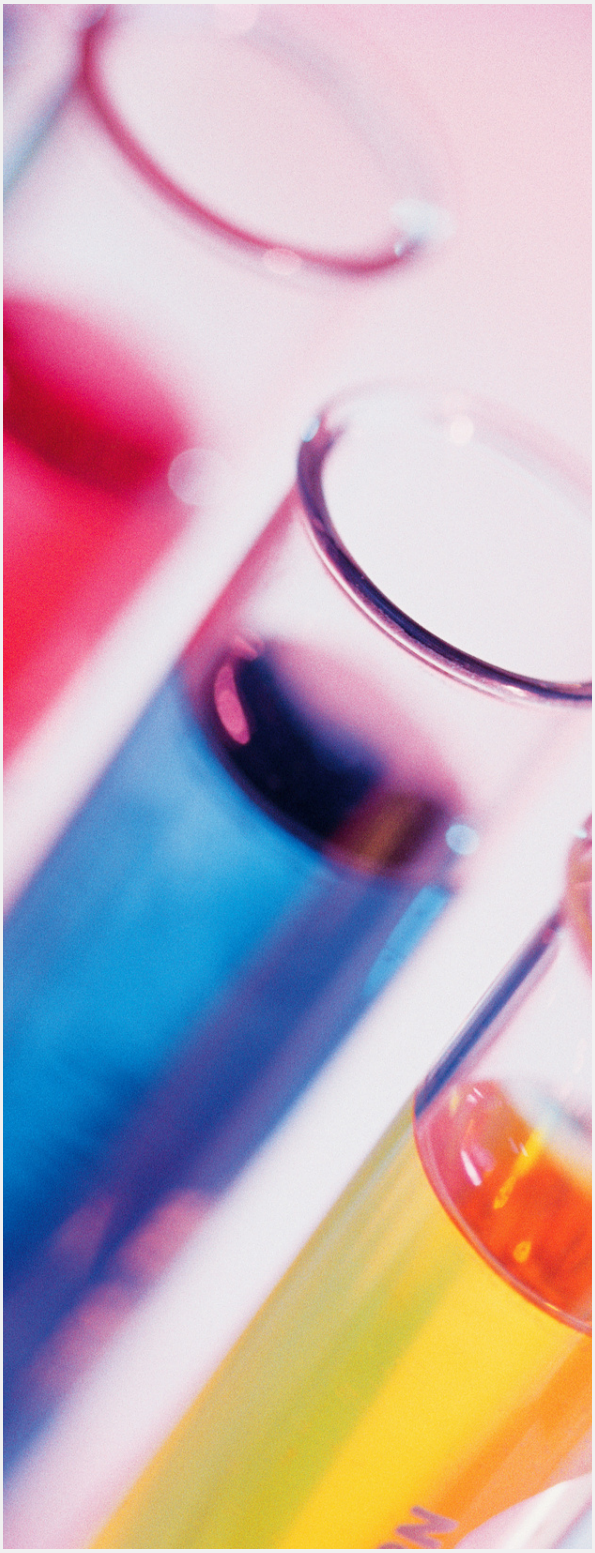
Common Symptoms of Constipation

- Abdominal discomfort
- Bloating
- Feeling toxic & sluggish
- Increased gas production
- Reflux
- Vasovagal reaction (in severely constipated individuals)

If you're constipated and are also having diarrhea, your diarrhea may be caused by stool overflow. Due to fermentation by bacteria, stagnant stool may become loose and leak out around hard, dry stool sitting in the rectum, or in more severely constipated individuals, a buildup of stool may overwhelm the sphincter. Stagnating stool in the colon may result in toxins being absorbed through the intestinal lining into the bloodstream. Hardened feces that accumulate along the lining of the colon can also lead to overgrowth of harmful bacteria and interfere with absorption of water and nutrients.

3

TESTING & DIAGNOSIS



There are many different criteria for diagnosing constipation. Most are based on stool consistency, whether evacuation is complete, and the number of stools per week.

Less than 3 bowel movements per week is the standard textbook definition for constipation. In general, constipated individuals experience hard, difficult to pass, and less frequent bowel movements.

But you can have a bowel movement every day and still be constipated. Some people move their bowels regularly but always feel full and uncomfortable. While the definition of less than 3 bowel movements a week is an official guideline for diagnosis, how you feel is often the most important diagnostic tool.

Take a look at the diagnostic checklist for constipation on the next page as your guide.

Checklist

DIAGNOSING CONSTIPATION

- [ ] Less than 3 BMs/week
- [ ] Small, hard, or pebbly stool
- [ ] Straining
- [ ] Abdominal fullness or discomfort
- [ ] Abdominal distention
- [ ] Bloating
- [ ] Gas
- [ ] Hemorrhoids

TESTING

Test	*Reason*
Blood test	To investigate systemic causes such as hypothyroidism or high calcium levels
X-ray	To look for blockages and whether or not stool is stagnant throughout the colon
Sigmoidoscopy	To examine the rectum and lower parts of the colon
Colonoscopy	To examine the entire colon
Anorectal manometry	To evaluate the anal sphincter muscle function
Balloon expulsion test	To evaluate the anal sphincter muscle function
Colonic transit study	To evaluate the transit time of stool in the colon
Defecography	To evaluate the rectum during a bowel movement
MRI Defecography	To analyze the function of muscles used during a bowel movement
CAT scan	To exclude a blockage or lesion in the abdomen

Beyond this diagnostic checklist, there are multiple other tests that can be utilized in diagnosing constipation, depending on the clinical circumstances.

4

RED FLAGS

While most causes of constipation are minor and fixable, there are some instances where constipation can be a sign of a more serious, underlying problem. These red flags include:

Constipation Red Flags

- Severe abdominal pain
- Fever
- Nausea
- Cramping
- Melena (dark blood in the stool)
- Rectal bleeding
- Rectal pain
- Vomiting
- Weight loss

If you have any of these red flag symptoms that accompany your constipation, we encourage you to make an appointment to speak with your healthcare provider and investigate your symptoms more urgently.

5

PROGNOSIS

Constipation generally has a good prognosis, although your response will vary based on the cause of your constipation, as well as how consistent you are in implementing dietary and lifestyle changes (specifically those we will discuss in the next two sections).

Those with constipation caused by dietary and lifestyle factors, such as inadequate water, fiber, and/or exercise, have a high success rate of resolving their motility issues with diet and lifestyle changes. Medication-induced constipation can also be treated fairly well with tapering medications and/or implementing consistent lifestyle and dietary modifications.

Those who suffer from constipation associated with hormonal or anatomical issues may have a more difficult time resolving their constipation, although there are many ways to gain more regularity and a higher quality of life. Read on for actionable solutions to an entire range of constipation causes.

PART 2

THERAPEUTICS

Nutritional Therapy | Supplements &

Natural Aids | Lifestyle Recommendations

NUTRITIONAL THERAPY

Your constipation may feel overwhelming and a constant that you just can't shake. But don't fear. I have lots of tools in my box for you to try. For starters, I recommend a handful of extremely effective dietary and lifestyle modifications. Irregardless of the cause, these diet and lifestyle modifications almost always improve symptoms and are the first step in feeling better.

Let's start with three simple yet very meaningful dietary changes:

Top 3 Dietary Changes to Treat Constipation

- Eat a fiber-rich diet including at least 6 servings of vegetables daily
- Drink at least 80 ounces of water daily
- Include high fiber complex carbs like brown rice, oats, and legumes

Read on for more specifics on how best to implement these three constipation-busting dietary changes...

FIBER

Eat a fiber-rich diet, including many vegetables.

Eating lots of fiber may seem pretty straight forward to many of us and we often feel like we're already eating enough. But when constipation rears its ugly head, it's important to know exactly how much fiber you're eating each day. While you may already be eating vegetables every day, you may not be getting as much fiber as you think.

The Institute of Medicine states that women should consume approximately 25 grams of fiber daily and men, 38 grams daily to promote a healthy gut and bowel regularity. Yet, studies show that even this may not be enough, and in fact, our ancestors and indigenous tribes eating a traditional diet, report consuming upwards of 100 grams of fiber daily! These are also the very populations with the most diverse and rich microbiomes, markers of overall health. While this amount of fiber may seem

excessive, it's just a good reminder that high fiber intake is directly correlated with better health, not just in terms of bowel regularity but also immune function, cardiovascular status, and cancer risk.

To implement this first dietary tip of consuming more fiber, begin by tracking your fiber intake. Over a three-day period, keep track of your daily consumption of fiber.

You might be surprised at how challenging it can be to consume adequate amounts of fiber, especially if you're not 100% plant based. It's also good to become aware of what foods pack the biggest punch in the fiber department. On the following page, you'll find some gut friendly foods and their fiber content for your reference. You'll notice that the big fiber foods are legumes, and that some vegetables actually contain less fiber than you thought. This doesn't mean stay away from veggies! It means keep on eating them, increase how much you're eating and be sure to incorporate the veggies highest in fiber, and also, incorporate a few servings of legumes and whole, gluten-free grains into your diet every day.

You may be wondering about breads, cereals, bars, and other "fiber rich" grain-based foods. These foods most often contain processed forms of fiber, which aren't going to help you as much in the bathroom. I can't stress enough the importance of consuming whole forms of fiber found in plant foods straight from the ground. These are the foods that will help improve your constipation, not a bar containing 15 grams of processed or synthetic fiber.

High fiber foods, categorized by food type:

Fruits	Serving Size	Total Fiber (g)*
Raspberry	1 cup	8
Pear	1 medium	5.5
Apple, with skin	1 medium	4.5
Banana	1 medium	3
Orange	1 medium	3
Strawberry	1 cup	3
Vegetables		
Green peas, boiled	1 cup	9
Sweet potato, baked	1 medium	6
Broccoli, boiled	1 cup	5
Turnip greens, boiled	1 cup	5
Brussels, boiled	1 cup	4
Sweet corn, boiled	1 cup	3.5
Cauliflower, raw	1 cup, chopped	2
Carrot, raw	1 medium	1.5
Grains		
Quinoa, cooked	1 cup	5
Rolled oats, dry	1/2 cup	4
Brown rice, cooked	1 cup	3.5
Millet, cooked	1 cup	2
Legumes, nuts, & seeds		
Split peas, boiled	1 cup	16
Lentils, boiled	1 cup	15.5
Black beans, boiled	1 cup	15
Chia seeds	1 ounce	10
Almonds	1 ounce (23 nuts)	3.5
Pistachios	1 ounce (49 nuts)	3
Sunflower kernels	1 ounce	3

Source: USDA National Nutrient Database for Standard Reference, Legacy Release

**Rounded to nearest 0.5g*

SUPPLEMENTS & NATURAL AIDS

Because food is such effective medicine, there are very few supplements and natural aids I actually recommend. But over the last 20+ years of working with patients, I find myself returning to a handful of products that work well with minimal side effects. In this next section, I'll go over my top recommended digestive aids and supplements in treating constipation. These include:

Supplements for Constipation

- Acacia fiber
- Psyllium husk
- Magnesium

Natural Aids for Constipation

- Ginger
- Peppermint
- Fennel
- Prunes
- Kiwi

SUPPLEMENTS: ACACIA FIBER

Acacia fiber is a dietary fiber supplement used commonly for constipation, IBS and other digestive complaints. It originates from the sap found in the acacia tree native to India. Acacia fiber has prebiotic qualities that encourage the growth of beneficial gut bacteria, and unlike some other forms of dietary fiber, is non-thickening, flavor-free, and mixes instantly. You can even put acacia fiber in your morning tea or oatmeal without tasting a difference!

The scientific literature supports acacia fiber for improving bowel regularity, but the research is limited. In a study conducted in children with bowel irregularity, acacia fiber proved just as effective as psyllium (which we'll talk about next) in treating constipation. But most commonly, acacia is utilized in promoting the growth of beneficial gut bacteria, which also improves bowel regularity, although more indirectly. Based on the literature, acacia fiber can be a beneficial addition to a diet high in fiber in promoting gut health and is recommended to patients who find it helpful.

SUPPLEMENTS: PSYLLIUM HUSK

Ground psyllium husk is one of those and is most helpful for treating constipation. It's also effective for conditions where incomplete evacuation can be a problem, including dysbiosis (gut bacteria imbalance), irritable bowel syndrome (particularly in constipation-predominant IBS), parasites (helps to remove parasite eggs and prevent them from taking root in the gut), and diverticulosis (bulks the stool and helps to achieve more complete evacuation).

Psyllium is a form of water-soluble plant fiber with prebiotic effects that can help alleviate symptoms of many different digestive conditions by encouraging healthy bowel movements. Psyllium forms a viscous gel in the intestine to bulk the stool and

move the products of digestion through in a timely fashion. You can think of psyllium like a broom that sweeps debris out of your colon and keeps things moving through efficiently.

Although psyllium is a safe and effective fiber supplement, here are two things to keep in mind:

1). Digestive distress: Psyllium fiber can create bloating, gas, abdominal discomfort, cramping (and even diarrhea) due to the fact that it bulks the stool. That's why it's incredibly important to drink plenty of water with it. Most of these symptoms can be managed by starting with a lower dose of psyllium and increasing slowly as your body becomes acclimated to the additional fiber. Below you'll find a step-by-step guide that explains this in more detail.

2). Drug interactions: Psyllium has a binding effect and can impair absorption of other medications so it shouldn't be taken within 2 hours of other medicines or supplements.

Psyllium should be combined with positive lifestyle changes, like a high-fiber, whole-food diet, regular exercise, plenty of water, and stress reduction. Daily use can be a healthy and effective way to increase fiber intake, relieve bloating and constipation, feed your healthy gut bugs, and curb your appetite in between meals.

How To Use

Psyllium Husk

While psyllium husk powder is a great way to improve overall gut health, too large a dose at one time can clog up your bowels and worsen your symptoms. Choosing the correct dosage and drinking it with lots of water are key to prevent it from clumping in your gut and making you feel worse rather than better.

Here's what I recommend to start:

- Take 1 teaspoon of finely ground psyllium husk once a day in the morning, mixed with at least 8 ounces of liquid and followed by an additional 8-ounce glass of water. You may feel full and even more bloated the first few days, but after a week your body should be used to the increased fiber

Then:

- *After a week*, add a second teaspoon in the middle of the day.
- *After two weeks*, add a third teaspoon at bedtime.
- *After a few weeks*, of taking the psyllium in divided doses, consolidate the 3 doses into one heaping tablespoon in the morning.

Be sure to follow each dose with an additional glass of water. You can add a little splash of juice or lemonade to the water for flavoring, but don't use too much juice or it will be too thick. Also, you need to **drink it briskly**.

What brand of psyllium should you buy? The kind that tastes good enough that you'll use it regularly. The psyllium husk I recommend is the kind my hard-core patients use – it's pure ground psyllium husk without any flavoring or additives. The particles are a little bigger, it has a kind of birdseed consistency, and it doesn't dissolve that well, but it has a very robust effect on the bowels. A more finely ground, smoother-texture, flavored psyllium is what a lot of other patients use. It dissolves more easily and tastes better, although I'm not a fan of the artificially sweetened versions or the kind with lots of other additives.

If you're constipated and also trying to lose weight, a dose of ground psyllium husk three times a day will keep you full in between meals and is a healthy way to curb your appetite and treat your constipation at the same time. If you are experiencing significant digestive distress, seek the advice of your healthcare practitioner before embarking on any new regimen, including adding psyllium husk to your routine.

SUPPLEMENTS: ACACIA & PSYLLIUM – THE DIFFERENCE?

Both acacia and psyllium are fiber supplements used as safe and effective modalities for improving bowel regularity and treating constipation. While acacia fiber is 100% soluble fiber, psyllium husk is comprised of about 70% soluble fiber and 30% insoluble fiber. What does this mean?

Soluble fiber is present in some legumes, grains, fruits, and vegetables, and during digestion, it draws and absorbs water in the intestines, forming a gelatinous substance that aids in the digestive process. When in supplement form, this type of fiber dissolves very well in liquids and foods. Because soluble fiber supplements like acacia rarely contain amounts of insoluble fiber (which we'll discuss in a minute), consuming acacia and other soluble fiber supplements along with whole foods that contain insoluble fiber (like vegetables and legumes) can make the supplement more effective.

Insoluble fiber adds bulk to your stool, allowing food to pass more quickly through your digestive tract. While both fibers aid in bowel regularity and have proven to be effective in promoting digestive health and bowel regularity, psyllium is most commonly used to combat constipation and has a more robust body of scientific literature in its corner supporting its efficacy for treating constipation.

Which one should you use? While I typically prescribe psyllium to those suffering from constipation, as it creates more bulk to the stool and contains more scientific evidence in promoting regularity, the best fiber is the one you'll use most often. If you find that you're not able to stomach psyllium because of its inability to dissolve into the liquid you're consuming it with, acacia may be a better alternative. No matter which fiber you decide to go with, be sure to drink plenty of water to keep the extra fiber moving through your bowels so that it can do its job.

Can you use them both? Yes, you can use them both, although as long as you're taking one serving per day, I don't see a need to or benefit in combining the fibers on a daily basis, as most of your fiber consumption should come from whole foods. However, some of my patients prefer psyllium at home and acacia on-the-go because of its ability to dissolve into any food or beverage.

SUPPLEMENTS: MAGNESIUM

Magnesium is a naturally occurring mineral critical for energy production, metabolism, and enzyme function. It enhances motility through the gut and helps to eliminate intestinal build-up and debris. While I recommend very few supplements, magnesium is a natural way to help the body get regular and can be used safely and effectively.

The form of magnesium I recommend is either magnesium citrate or magnesium oxide. It's considered a gentle osmotic laxative that relaxes your intestines and increases the amount of water in your bowels. The best part about magnesium is that it can improve your bowel regularity without causing emergency trips to the restroom if taken in appropriate amounts. I recommend taking magnesium citrate or oxide in tablet form - which is available at your local drugstore - at a dose of approximately 400mg/day to start. Keep in mind that supplements are a last resort therapy after dietary and lifestyle recommendations have been implemented for a period of time.

SUPPLEMENTS: LAXATIVES

Laxatives are used to treat constipation by loosening stool and increasing bowel movements. As I'm sure you've guessed, I recommend diet and lifestyle modifications as the first and the most effective steps in treating your constipation.

While we've already covered some form of laxatives earlier in this section, I wanted to address the idea of laxatives as whole so that you have an understanding about what they include and how they're used. There are a few different types of laxatives I'd like to discuss in this section: bulk forming laxatives, osmotic laxatives, stool softeners, and stimulant laxatives.

Bulk forming laxatives

Although these fiber supplements are called laxatives, it’s important to differentiate them from other forms of laxatives whose long-term use we don’t recommend. Bulk laxatives are really just healthy plant fiber.

Adding in these fiber supplements, as discussed, is a great way to treat constipation once dietary and lifestyle modifications are implemented. Fiber is so important because it increases the bulk of stool and helps it hold more water, allowing a softer, easier to pass stool. Some of the most common bulk laxatives include:

- Psyllium
- Inulin
- Methylcellulose

As a rule of thumb, increase the dose of fiber slowly to prevent gas and cramping, and always take it with plenty of fluid. Avoid taking within 2 hours of any other medications in order to avoid binding up the medication and making it less effective. It may take 1 to 3 days for these bulking agents to start working.

The next three categories of laxatives are used in more serious cases of constipation, and we do not recommend them unless dietary changes, lifestyle modifications, and bulking agents prove ineffective. The below laxatives should be taken under the care of your healthcare provider and shouldn't be administered for longer than 2 weeks at a time.

Osmotic laxatives

This class of laxative works to hold water in the colon, softening the stool and increasing the number of bowel movements.

- Polyethylene glycol (MiraLax, Glycolax, PEG 3350)
- Lactulose
- Magnesium Hydroxide (Milk of Magnesia)

Side effects can include nausea, abdominal cramping or gas and it can take 2 to 4 days for the medication to take effect.

Stimulant laxatives

Stimulant laxatives are used to treat constipation and are prescribed prior to bowel examinations or surgery. They work to increase the peristalsis (contractions) of the colon and also to hold water into the stool increasing the frequency of the bowel movements. Examples of stimulant laxatives are:

- Senna (Ex-Lax, Sennokot)
- Bisacodyl (Correctol, Dulcolax)

These laxatives work quickly, within 6 to 12 hours, but are often accompanied by abdominal cramps, nausea, diarrhea. Some people overuse stimulant laxatives. Taking stimulant laxatives regularly or in large amounts can cause side effects, including low potassium levels and can make the bowel sluggish.

Stool Softeners

Stool softeners increase the amount of water absorbed from the gut into the stool making the stool softer and easier to pass. The most common form of stool softeners is Docusate Sodium (brand name, Colace). These laxatives are used to treat occasional constipation, often in combination with medications that may cause constipation. Relief is usually seen within 1 to 3 days of use. Abdominal cramping is a common side effect.

Bottom line: Always choose dietary and lifestyle modifications, as well as bulking laxatives, first to treat your constipation. Consult your healthcare provider and work closely with them as you journey to uncover the root cause of your constipation. If stool softeners, osmotic, or stimulant laxatives are prescribed, use them judiciously and not outside the recommendations of your provider. The body can quickly become dependent on these more powerful laxatives, compounding your digestive distress.

NATURAL AIDS

There are natural motility agents that can help promote bowel regularity. While a whole food diet rich in plant fiber is incredibly important, incorporating some of these motility agents can help move your bowels in the right direction. These agents include ginger, peppermint, fennel, prunes, and kiwi. Incorporating teas and whole foods that contain these foods can help move things along in your digestive tract.

Kiwi & Prunes

In a recent study, kiwi proved more effective than ground psyllium husk or prunes in treating chronic constipation with fewer negative side effects and greater patient satisfaction. The randomized study presented at the virtual American Gastroenterology Conference 2020 randomly assigned chronically constipated participants to three groups: 2 peeled kiwi fruit, 10g psyllium husk, or 12 peeled prunes. Participants received the constipation intervention daily for 4 weeks.

Results showed that all three interventions were effective in improving complete spontaneous bowel movements (CSBM - defined as a bowel movement not induced by medication and resulting in a feeling of complete emptiness - or evacuation), with prunes being the most effective in 67% of study participants, psyllium in 64%, and kiwi in 45%. Straining improved in all three groups and stool consistency was improved in the kiwi and prunes group.

Most notably, only 7% of patients in the kiwi group reported dissatisfaction (while 68% reported satisfaction), compared to 17% in the prunes group and 38% in the psyllium group. Those taking prunes and psyllium for chronic constipation were significantly more likely to report abdominal pain, bloating, and gas.

The takeaway here is that while prunes prove to be most effective in inducing CSBMs when compared to psyllium and kiwi, kiwi performs overall better because it's effective and well-tolerated. In addition, for those sensitive to FODMAPs, kiwi can serve as a natural and effective approach to constipation, with minimal digestive side effects.

Ginger

Ginger has a long history of medicinal use to treat a multitude of ailments due to its antioxidant, anti-inflammatory, and antitumor properties, which have been documented in the scientific literature. Its benefits for gut health are widely publicized, and it is currently used as an integrative approach for irritable bowel syndrome (IBS) relief, excessive gas, constipation, bloating, heartburn, motion sickness, gastric ulcers associated with nonsteroidal anti-inflammatory drugs (NSAIDs like ibuprofen and aspirin), and to improve nutrient absorption, among other conditions.

If you want to try adding some ginger to your daily regimen to improve your constipation, I recommend adding fresh peeled ginger to your recipes, blending it in with your green smoothies, and using it to make ginger tea.

Peppermint

Peppermint is often used to quiet GI symptoms, especially in those with IBS (irritable bowel syndrome), and to encourage bowel regularity. It has long-standing anecdotal evidence in treating gastrointestinal symptoms, such as abdominal pain and discomfort, functional constipation, and bloating, and works by increasing the amount of gastric acid in your stomach, positively aiding digestion and relaxing gastrointestinal muscle, allowing debris to flow more freely.

A 2019 meta-analysis study published in *BMC Complimentary Alternative Medicine* looked at the use of peppermint oil in relieving symptoms (including constipation, bloating, and abdominal discomfort) in those with IBS. The study found peppermint oil to be an overall safe and effective therapy.

While some research exists in analyzing the effectiveness of peppermint oil in relieving IBS symptoms, very little research has been conducted to assess its effectiveness in relieving constipation. If you suffer from abdominal discomfort and cramping, peppermint oil may help in reducing these symptoms.

Peppermint is available as whole leaf, teas, or enteric coated capsules that are designed to digest in the small intestine, minimizing heart burn and indigestion. If you choose to drink it in tea form, steeping 1 teaspoon of dried peppermint leaves in 1 cup of boiling water for 10 minutes is often sufficient to aid in digestion. If you choose a peppermint supplement, enteric coated capsules containing 180-225 mg of peppermint oil 2 to 3 times a day may be beneficial for gut-related symptoms.

If you choose to take a peppermint oil supplement it needs to be enteric coated, meaning they dissolve in the intestines instead of the stomach, to reduce the likelihood of heartburn. As peppermint does relax muscles, it can relax the Lower Esophageal Sphincter (LES) and can exacerbate symptoms of heartburn and reflux. Antacids or acid suppressing medications can interact with peppermint oil supplements and reduce the pH of the stomach, potentially allowing the capsules to digest in the stomach not intestine. If you are on either of these medications, we recommend skipping a peppermint oil supplement.

Lastly, for those who are pregnant or breastfeeding, avoid peppermint oil supplementation. Peppermint oil can worsen the risk of gallstones in pregnant women and may decrease milk supply. The amount of peppermint found in food is safe to consume for these populations.

Fennel

Like peppermint, fennel seed anecdotally reduces gas and bloating and increases bowel movement frequency. Fennel possess anti-inflammatory properties that help relax intestinal muscles and move things through the intestinal tract more quickly. Although limited, studies exist that back the use of fennel in aiding digestion and improving uncomfortable GI symptoms and bowel frequency.

While scientific evidence supports the use of fennel in relieving constipation and other GI-related symptoms, research is limited, and we therefore can't draw any conclusive takeaways. What we do know is that fennel is a safe method in possibly finding some relief from constipation and its related symptoms. If you'd like to incorporate fennel in your daily gut health regimen, try cooking with fennel, adding it to your salads, or chewing on fennel seeds. You can also make fennel tea by steeping a teaspoon of crushed seeds or fresh fennel bulbs in a cup of boiling water for 10 minutes.

Bottom line

Scientific evidence, although limited, supports the use of the natural aids discussed above, including kiwi, prunes, ginger, peppermint, and fennel. While there are many other natural aids out there, these are the five with the largest amount of supporting scientific evidence and the ones I recommend to help alleviate digestive distress and aid in resolving constipation.

If you choose to use these aids and they help in relieving your symptoms, I recommend incorporating them daily. But remember, the most effective ways to combat constipation and promote bowel regularity is to follow my top three dietary recommendations discussed in the previous section:

- eat a fiber-rich diet including at least 6 servings of vegetables daily
- drink at least 80 ounces of water daily
- include high fiber complex carbs like brown rice, oats, and legumes

and to focus on the lifestyle recommendations discussed in the next section:

- water
- exercise
- sleep
- bathroom habits
- biofeedback

Recipe

Kiwi Ginger Smoothie for Constipation

This smoothie is full of micronutrients and beneficial plant fiber and can also be a great way to start every morning, whether you're constipated or not!

Serves 1

Ingredients

- 1 to 2 cups coconut water or water (depending on the preferred consistency)
- spinach (1 large handful)
- collard greens (2 stalks)
- celery (1 stalk)
- fresh mint (1 small handful)
- 2 kiwis
- ½ inch fresh ginger
- 1 cup ice

Method

Place the water, then the greens, then all other ingredients in a high-speed blender. Blend until smooth. Enjoy immediately.

3

LIFESTYLE RECOMMENDATIONS

Along with my top three dietary recommendations, I recommend 5 lifestyle tips that are paramount in getting regular. Here they are:

Lifestyle Tips for Constipation

- Water
- Exercise
- Sleep
- Bathroom habits
- Biofeedback

WATER

Drink more water.

Staying hydrated is one of the best things you can do for your bowels. After all, our intestines are basically a winding system of pipes that need constant flushing. And without adequate amounts of water, the piping will clog. And that's exactly what happens in many of us when we're dehydrated. Things get stuck along our digestive superhighway and we're left feeling bloated, backed up, and toxic!

Some of us feel like we're already drinking plenty of water, but current daily hydration recommendations are actually more than we've been told in the past and it's important that we heed these recommendations and up our water intake, especially if constipation is your issue.

The U.S. National Academies of Sciences, Engineering, and Medicine in order to be adequately hydrated, men should consume about 15.5 eight-ounce (124 ounces) glasses of water daily and women, 11.5 (92 ounces). While these are generic recommendations daily water consumption, there are ways to calculate more specifically what your personal water intake should look like based on gender, age, body, weight, and activity level.

As I recommended with your fiber intake, take three days to track and observe how much water you're actually consuming in a day. If you're not reaching the above recommended amount, increase your water intake. Buying a water bottle for on the go can be helpful. Splitting up your water intake can also be helpful. For example, drink 30 ounces in the morning upon waking, 30 ounces after lunch, and 30 ounces in the late afternoon between lunch and dinner. If this amount of water seems excessive to you, focus on consuming 80 ounces of water daily and increase from there.

EXERCISE

If you're not moving neither are your bowels!

Regular exercise is important to stimulate peristalsis and keep the products of digestion moving efficiently through your digestive tract. The smooth muscles that make up the long, hollow intestinal tube both propel and mix digested food as it travels. This movement, known as peristalsis, consists of wavelike motions as the muscles contract and relax and the products of digestion are moved efficiently through the system.

The GI tract is mostly smooth muscle, which contracts involuntarily, unlike the biceps and hamstrings, which are skeletal muscles under voluntary control that can be directed by us to contract or relax. So, if the muscular contractions of peristalsis happen involuntarily, what's the connection between physical activity and gastrointestinal fitness?

Well, despite the fact that peristalsis occurs without our effort or consciousness, our level of physical activity does have an impact on the involuntary muscle contraction of our GI tract. In fact, exercise is one of the most important stimulators of peristalsis:

- Exercise decreases transit time through the entire digestive tract so that your stools arrive at their final destination faster.
- Gravitational forces at work during exercise help to propel the stool downward toward the rectum.
- Exercise increases production of nitric oxide, a chemical that relaxes the smooth muscles of the digestive tract and speeds up peristalsis.

We've learned from our cardiology colleagues that nitric oxide is essential to vascular health. It relaxes the blood vessels that feed the heart, boosting blood flow and preventing the buildup of plaque that can cause heart attacks. It has a similar protective effect in the GI tract by keeping the mucosa healthy and preventing white blood cells that mediate inflammation from sticking to the lining.

Over and over, I've observed that my most active patients tend to have fewer GI problems and much less bloating. In contrast, bedbound, sedentary patients can develop such severe bloating and constipation that someone has to manually remove the stool from their colon, an unpleasant task for both parties called fecal disempaction.

There's lots of scientific evidence to support this inverse relationship between exercise and the likelihood of developing digestive problems, including cancer, gallstones, diverticulosis, constipation, reflux, and certain types of inflammation.

What kind of exercise is best? If you ask me what kind of exercise you should be doing, I'll tell you that just as there are no bad vegetables, there really are no bad forms of exercise. As a rule of thumb, get sweaty as often as you can, ideally at least three times a week. Running, brisk walking, yoga, karate, soccer, dancing, tennis, boot camp, swimming—it's all good. The most beneficial forms of exercise for promoting peristalsis include those forms that massage the digestive tract such as running, brisk walking, jumping, dancing, and twisting yoga poses. But if these aren't your favorite, don't fret. Just get out there and get sweaty!

SLEEP

Did you know that how long (or should I say, how little) you sleep could be the cause of your constipation? In an age where lack of sleep has been referred to as an epidemic in the United States, the link between your sleep patterns and your gut health couldn't be timelier.

A May 2020 study, featured in the *Digestive Disease Week 2020* lineup, looked at the relationship between constipation and sleep duration as reported by 14,500 adults who participated in the National Health & Nutrition Examination survey. In the survey, long sleep duration was defined as greater than 8 hours, normal sleep duration between 7 and 8 hours, and short sleep duration less than 7 hours. Bowel regularity was based on the number of bowel movements per week (constipation is defined as fewer than 3 bowel movements within a week), as well as stool form (lumpy, hard, soft, etc.) and were categorized as normal, constipation, or diarrhea.

After adjusting for confounding factors, such as demographics, comorbid diseases, lifestyle, medication, and diet, those with short sleep durations possessed a 38% increased risk in suffering from constipation. While one could say that lack of sleep plays a large role in constipation causality, it's really a "chicken or the egg" situation. Does lack of sleep play a role in constipation etiology, or does impaired bowel function from constipation cause lack of sleep? Researchers who conducted the study believe both are at play.

Staller, et al. Abstract Sa1711. Presented at: Digestive Disease Week; May 2-5, 2020; Chicago (meeting canceled).

- **Consider behavioral therapy.** A 2020 study found that just 4 weeks of behavioral therapy for sleep significantly improved sleep quality in patients with digestive problems. After 8 weeks, improvements in fatigue, anxiety, and depressive symptoms were also observed. When compared to a group who went through the same behavioral therapy and also received a sleep aid medication, the group who received no medication and therapy only had the same results as the medication group. Results show that brief behavioral therapy alone can result in huge impacts on sleep.
- **Consult your medicine cabinet** - Some medications may negatively impact sleep, including steroids, which can make falling asleep challenging, as well as other medications that can cause insomnia and night sweats. Talking to your doctor about your medications and how they affect your sleep is important, including discussions of alternate dosing schedules or ideally, tapering off them completely when possible.
- **Shift the bulk of your calories to earlier in the day** - Breakfast like a queen (or king), lunch like a princess (or prince), dinner like a pauper… and consume nothing after 8pm. Your stomach actually has a bedtime and stomach contractility decreases markedly after dark, so stopping eating at sunset, or shortly thereafter, can give your digestion a rest and minimize symptoms before bed and throughout the night.
- **Relax** - No matter what stresses you're suffering from, whether it's the grind of daily life or the stress of having chronic constipation (or both!), implementing relaxation methods an hour or so before bed can be incredibly helpful for falling asleep faster and staying asleep longer. Try a calming herbal tea (like chamomile or lavender), take a warm bath or shower, and/or try deep breathing, meditation, or a short and relaxing yoga sequence. Be sure to dim the lights in your home and avoid anything that knowingly induces stress in the hour before getting into bed. Consider letting some fresh air in, which is good for sleep and your immune system.

- **Be mindful of what you eat in the second half of the day** (avoid spicy/fatty foods) - While it's important to always be mindful of what you're eating, paying special attention to the second half of your day can help prevent GI symptoms at night. Some foods that can be problematic include very spicy, fatty, or processed foods, as well as gluten and dairy. Focus on veggie-centric smaller meals as you get closer to bedtime.
- **Exercise** - Moving your body aids both gut health and sleep and is one of the best ways to encourage quality sleep. Getting a minimum of 20 to 30 minutes of exercise each day, preferably outside, can allow your body and mind to rest more soundly at night - and it's also a great stress reliever.
- **Avoid smoking and alcohol** - Both smoking and alcohol have been linked to disturbed sleep.
- **Get outside** - Exposure to natural light can help you get better sleep and improves circadian alignment. In fact, even being inside but next to a window with lots of natural light can make a big difference. A study conducted in office workers found that those working near a window experienced better sleep quality than those who worked in a windowless environment. We recommend spending time at least 30 minutes outside daily. If this isn't always possible, spend time exposed to natural light indoors, and open windows in your home or car to let fresh air in, which is good for sleep and your immune system.
- **Stop screen-time** an hour before bed and keep your phone out of the bedroom. The blue light of electronic screens interferes with your ability to fall asleep quickly and can have lasting disruptive effects on sleep throughout the night.
- **Incorporate natural sleep aids** - red light and pink noise (nature sounds such as waves, forest noises, rain, etc.) aid in the release of melatonin and help prepare the body for sleep. Incorporating these tools 30 minutes before bed and while in bed can help lull your body into a peaceful night's sleep.

BATHROOM HABITS

Your bathroom habits can play a major role in your bowel regularity. Let's take a look.

1). Toilet position: Did you know there's a right and a wrong way to sit on the toilet? Most people don't realize that their position when having a bowel movement is key to solving lots of GI complaints like bloating, gas, and constipation. The right position can also help improve more serious GI conditions such as diverticulosis, small intestinal bacterial overgrowth (SIBO), and irritable bowel syndrome (IBS). Squatting is the most natural stance for giving birth and, it turns out, for having a bowel movement.

A squatting position helps to straighten the anorectal angle and keeps the knees pressed up against the abdomen, increasing intraabdominal pressure, which helps to push the stool out. Over a billion people throughout the world don't have access to

toilets and squat over a hole instead. Interestingly, people in countries where squatting is the norm have much less constipation and colon cancer, probably because their diets, like their bathrooms, are less refined.

I'm not suggesting that you get rid of your modern plumbing, but sometimes getting back to nature isn't such a bad thing. This is why I recommend a bathroom stool (no pun intended!) for everyone – a small stool (the height of your toilet to half a foot shorter) that you put your feet on to draw your legs up and closer to your chest when sitting on the toilet.

This lets you approximate a squatting position while maintaining the luxury of a toilet rather than a hole in the ground. If you're flexible, drawing your feet up and placing them on the toilet seat works great, too—but be careful not to fall off! If you need to be resourceful outside the home, you can utilize a stack of magazines or books, or turn a small bathroom garbage can upside down. I find that constipation is rarely entirely due to position, but every little bit counts in our quest for stool nirvana, so consider trying a squat to see if it helps.

While those experiencing constipation, bloating, hemorrhoids or other GI conditions can greatly benefit from a squatting position, the average healthy person can benefit as well. Complete evacuation with each bowel movement is an important determinant for overall health.

In fact, a study published in March of 2019 in the *Journal of Clinical Gastroenterology* used a toilet stool in healthy subjects to assess the effects on bowel movement patterns. 52 female participants with a mean age of 29 were included in the study. Of the 52 healthy subjects, 15 reported incomplete evacuation, 23 reported straining, and 29 observed blood on their toilet paper within the last year. The use of the bathroom stool significantly reduced straining, increased bowel emptying, and decreased BM time. Do yourself a favor and change your position starting today. Your colon will thank you!

2). Train your bowels: Train your bowels: Every time you ignore the urge to go, you're training your digestive tract to be unresponsive. I see people with this sort of bowel confusion every day who literally don't know whether their stool is coming or going. Settling in with the newspaper, getting on a conference call, or delving into a good book when you're on the toilet are additional behaviors that untrain your bowels. They send a clear message to your brain and body that you have all day, encouraging sluggish bowel emptying.

Bowel training for those with erratic bowel movements involves sitting on the toilet at approximately the same time every morning to encourage a Pavlovian-type response. Your colon and pelvic muscles eventually get the message that sitting on the toilet means action. Getting in and out efficiently is equally important. The best stoolers are as precise as a Swiss watch.

3). Create the Right Environment: Creating the right ambience in your bathroom is essential for having good bowel movements. Temperature, lighting, accessibility, and privacy—all are important.

4). Turn around and take a look: Debunking the notion of stool and the bowels as being dirty is an important part of developing good bowel habits. A bowel movement isn't something shameful that should be furtive and secretive. I encourage you to look at your stool and to explore the connection between what you eat and drink and how your stool looks and feels. When you experience chalky pebbles that are hard to come out, you may need to eat more green vegetables or beans and drink a few more glasses of water. Notice your bulked up stool the day after a big bowl of lentil soup. Making these connections between how you're living and how you feel is a crucial part of your ability to take care of your digestive health and bowel regularity.

BIOFEEDBACK

One of the most useful strategies for treating constipation, especially as it relates to pelvic floor disorders and anismus, is biofeedback. Biofeedback is the process of getting your mind and body in sync. Anorectal biofeedback employs an internal sensor placed in the anal canal that records the pressure generated by the pelvic floor muscles. The readings are visually displayed to the patient via a monitor, and over time, the muscles are trained to respond in a more coordinated manner. (Biofeedback can be used for lots of things, not just constipation, and the types of sensors employed vary depending on the condition. For migraines, sensors that detect brain wave activity are used).

Think of it as part of caring for and tending to your body, just like taking a warm bath to relax your muscles, applying lotion to moisturize and soothe, and doing all the other personal things that happen in the bathroom. Although some people require more sessions than others, biofeedback has been an extraordinarily useful part of my

practice. It's extremely helpful for you to see your heart rate decrease or your temperature warm as your blood vessels relax and dilate. You see the changes on the computer at the same time as you feel the effects in your body. The goal is that after a few sessions you're able to achieve the results on your own without the use of sensors or a computer.

General biofeedback, without an internal sensor, is also helpful for constipation. A belly belt is worn around the waist that measures respiration, and sensors on the fingers measure temperature, heart rate, and blood flow.

The biofeedback practitioner first gets baseline or resting measurements. Then he or she will ask you to think about something stressful to see how your measurements change.

Then the real work begins. You'll be coached in using visual imagery, guided meditation, deep breathing, and other relaxation techniques to achieve a relaxed state where the indicators start to sync up, particularly the breath and the heart rate, and the muscles start to relax.

WHAT ABOUT COLONICS?

Some of the most common questions I get from my patients are: “Should I do a cleanse or detox?” “Will it help improve my constipation and bloating symptoms?” “What about my gut heath or my appearance?”

Some people rave about the cleansed, glowing feeling they have after a colonic, while others feel dried out and dizzy. Colonic irrigation, hydrotherapy, or colonics all refer to the practice of placing a tube up the rectum that’s attached to special equipment through which large amounts of water - sometimes mixed with herbs or other substances - are pumped into the colon to remove waste matter. Minor complications like dehydration, electrolyte imbalances, and cramps and discomfort during the procedure can occur, but fortunately, more serious complications like infection from improperly cleaned equipment, and perforation of the colon are extremely rare.

There are a couple potential **drawbacks** to colonics:

The **first** is the potential disruption of the colon's unique and delicate bacterial ecosystem when liquid is pumped in under high pressure. Although many practitioners of colonic irrigation claim that removing encrusted fecal matter in the colon actually enhances the growth of essential bacteria, the procedure can also indiscriminately wash away both good and bad species of bacteria and taking a probiotic doesn't come close to replacing the essential flora that may be lost.

The **second** drawback is the potential for dependency and the development of a condition called colonic inertia (decreased motility) in people who undergo frequent colonics. The colon eventually realizes that much of its job is being done for it and may become less active in terms of contractility, leading to greater dependency on regular colonics for elimination. Part of the popularity of colonics is that people feel really good when their colons are empty, and colonics are really good at emptying the colon. But the colon doesn't need much help eliminating waste matter when we're doing what we're supposed to be doing: eating a high-fiber plant-based diet, avoiding processed food and refined sugar, drinking lots of water, and getting regular vigorous exercise. Incorporating those four habits into your daily routine will keep your bowels moving like clockwork.

For those of you who are wedded to the idea of a more drastic cleaning out, a two- or three-day green smoothie cleanse along with a couple tablespoons of prebiotic ground psyllium husk daily can give you similar results, and actually enhance rather than disrupt your gut bacteria in the process. Also, be sure to implement my top 10 tips for getting regular on the next page.

Ultimately, the less toxic your lifestyle, the less need you'll have for detoxification!

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WORKING WITH YOUR DOCTOR

Most gastroenterologists have no training in or experience with an integrative approach that includes nutrition and natural supplementation, but that shouldn't prevent you from including them in your digestive wellness journey. I highly recommend letting your gastroenterologist know that you're embarking on this program and that you'd like to share your results and progress – and would also like their support.

Be willing to acknowledge if you're not getting the expected results from the program and ask for help from your gastroenterologist. A good working relationship with your doctor is key.

Dr. Chutkan's Top 10 Tips

For Getting Regular

Now that you have a better understanding of your constipation, what could be causing it and how to treat it, let's review the most effective therapeutic approaches to getting regular:

1. **Decrease or stop the use of constipating/bloating medications.**
2. **Eat a fiber-rich diet**, including many vegetables, and take a fiber supplement such as psyllium husk.
3. **Try a natural motility agent like ginger or kiwi (2 fruit daily)**. You can incorporate these foods into your diet.
4. **Drink more water** and avoid caffeine-containing liquids, which can be dehydrating (shoot for 80 to 120 ounces water daily).
5. **Exercise at least 3 times per week**, working towards daily exercise to promote peristalsis.
6. **Practice good bathroom habits:** Go when you have the urge to go.
7. **Create the right environment** in your bathroom: Temperature, lighting, accessibility, and privacy —all are important!
8. **Change your position:** Squatting is the most natural stance for having a bowel movement.
9. **Work with a biofeedback practitioner** if your constipation is due to a pelvic floor disorder or anismus.
10. **Turn around and take a look**. Observe the link between what you eat and your bowel movement look, feel, and frequency.

Thank you...

...for joining us on this important educational journey!

The recording of your live session with Dr. Chutkan will be available up to 1 month after your course's end date. Your access link will be emailed to you within 48 hours after your chat.

For additional scientific resources regarding this course, please click below.

Resources