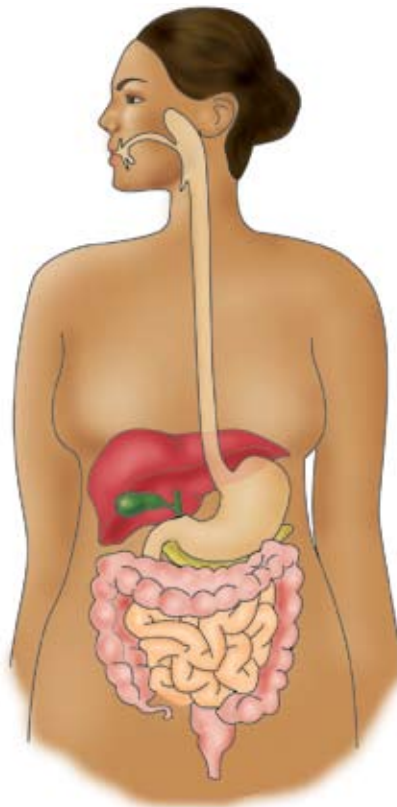


Digestive Health

Everyone has digestive problems from time to time—an upset stomach, gas, heartburn, constipation, or diarrhea. Many digestive problems may be uncomfortable or embarrassing, but they are not serious and don't last long. Others can be controlled with simple changes in your diet. But sometimes even common digestive symptoms can be signs of a more serious problem. Knowing when you should talk to your doctor can help you take care of your digestive health.

Digestive System



Liver
The largest organ inside the body. Makes bile (fluid that helps break down fats and gets rid of wastes in the blood). Changes food into energy; cleans alcohol, some medicines, and poisons from the blood.

Gallbladder
Stores the bile made in the liver and then empties it to help digest food.

Large intestine
Also called the colon. It absorbs water and sodium from the food.

Appendix
A pouch attached to the end of the large intestine. One knows its function.

Esophagus
The tube that carries food from the mouth to the stomach.

Stomach
The organ where digestion of food begins.

Pancreas
The gland that makes enzymes for digestion and the hormone insulin (which helps the body turn food into energy).

Small intestine
The organ where most digestion occurs.

Sigmoid colon
The lower end of the large intestine, leading to the anus.

Rectum
The opening at the end of the digestive tract where bowel movements leave the body.

How your digestive system works

The digestive tract is a series of hollow organs—the mouth, esophagus

(e-SAW-fuh-guhss), stomach, small intestine, large intestine (colon), rectum, and anus—through which food and

liquids pass and are absorbed or eliminated. Along the way, two solid digestive organs, the liver and the pancreas, add digestive juices. These juices help break down food into nutrients that can be absorbed by the body. Another organ, the gallbladder, stores bile between meals. Bile is the digestive juice produced by the liver that helps digest fats. At mealtime, the gallbladder empties bile into the small intestine.

Most nutrients in digested food are absorbed through the walls of the small intestine and travel through the bloodstream to other parts of the body. There, they are used to build and nourish cells and provide energy. Waste products, including the undigested parts of food known as fiber, leave the body through a bowel movement.

Common signs of a digestive system problem

Common digestive complaints such as nausea, vomiting, bloating, gas, heartburn, diarrhea, and constipation can be temporary. They can be caused by:

- certain types of food

- food contaminated with harmful bacteria
- flu or other short-term illness
- menstruation
- pregnancy

But sometimes these symptoms are signs of a more serious digestive disease or other health problem such as colon cancer or ovarian cancer. (See pages 57 and 60 of the *Cancer* chapter for more information.)

Digestive problems that affect women

Some digestive problems, such as irritable bowel syndrome and gallstones, are more common in women than men. Others occur equally in both sexes, but affect women in unique ways. For example, women with inflammatory bowel disease may have irregular menstrual periods. Some women with celiac (SEE-lee-ak) disease experience infertility or miscarriage. And heartburn caused by gastroesophageal (GASS-troh-uh-SOF-uh-JEE-uhl) reflux is common in pregnancy.

Common Digestive Problems in Pregnancy	
Problem	What you can do
Nausea and vomiting	<ul style="list-style-type: none"> • Avoid smells that bother you. • Eat smaller, more frequent meals. • Eat crackers before getting out of bed in the morning.
Heartburn	<ul style="list-style-type: none"> • Eat smaller, more frequent meals. • Avoid lying down after eating. • Ask your doctor what kind of antacid you can take.
Constipation	<ul style="list-style-type: none"> • Eat more fiber. • Drink plenty of water. • Take a daily walk.

Irritable bowel syndrome

Irritable bowel syndrome (IBS) is not a disease but a syndrome, meaning a group of symptoms. People with IBS most often have abdominal pain, bloating, and discomfort. Some people have constipation—infrequent bowel movements with hard, dry, or difficult-to-pass stools. Other people with IBS have diarrhea—frequent loose, watery stools. Still others go back and forth between constipation and diarrhea. Symptoms may go away for a few months, then return. Or symptoms may be constant and get worse over time.

IBS does not damage the intestines. Instead, it affects the way the digestive tract functions, and so is called a “functional disorder.” The exact cause is unknown, but in people with IBS, the colon seems to be extra sensitive to certain foods and stress. Normally, women are more sensitive to irritants in the digestive tract than men. This may help explain why IBS is more common in women. Hormones may play a role as well. Symptoms often become worse just before or at the start of a woman’s period.

Having IBS can disrupt your everyday life. Pain that comes on without warning and the need for frequent bathroom trips can get in the way of social activities and work. You may be embarrassed, frustrated, or anxious about the lack of control over your symptoms. IBS might cause problems in your sex life, such as painful intercourse or loss of interest in sex. These stressful feelings in turn can make symptoms worse.

You can often control mild symptoms by making changes to your diet and



lifestyle. Fiber supplements or over-the-counter medicines to control diarrhea may help. Prescription drugs are sometimes used to treat women with severe IBS, but some may have serious side effects. Researchers are studying new drugs and other approaches to relieve symptoms of IBS.

Coping With IBS

Learning to cope with IBS can help you live a more normal life and control your symptoms. Try these steps to manage your IBS.

- Find a supportive doctor who has experience with IBS.
- Learn your triggers. Large meals may make symptoms worse. So can certain foods and drinks such as chocolate, milk products, caffeinated drinks, and alcohol.
- Get support from your friends and family or join a support group.
- Plan ahead when going out; know where the public restrooms are.
- Try to reduce stress through regular physical activity, relaxation techniques such as meditation, or talking with a professional counselor.

Gallstones

Gallstones form when elements in bile harden into small, pebble-like pieces in the gallbladder. Most gallstones are made mainly of hardened cholesterol (koh-LESS-tur-ol). If liquid bile contains too much cholesterol, or the gallbladder doesn't empty completely or often enough, gallstones can form.

Women are twice as likely as men to have gallstones. Estrogen, a female hormone, raises cholesterol levels in the bile and slows gallbladder movement. The effect is even greater in pregnancy as estrogen levels rise. This helps explain why many women develop gallstones when pregnant or after having a baby. Likewise, if you take birth control pills or menopausal hormone therapy, you have a greater chance of developing gallstones.

You are also more likely to have gallstones if you:

- have a family history of gallstones
- are overweight
- eat a high-fat, high-cholesterol diet
- have lost a lot of weight quickly
- are older than 60
- are American Indian or Mexican American
- take cholesterol-lowering drugs
- have diabetes

Sometime gallstones have no symptoms and don't need treatment. But if gallstones move into the ducts that carry bile from the gallbladder or liver to the small intestine, they can cause a gallbladder "attack." An attack brings steady pain in the right upper abdomen, under the

right shoulder, or between the shoulder blades. Although attacks often pass as the gallstones move forward, sometimes a stone can become lodged in a bile duct. A blocked duct can cause severe damage or infection.

Warning Signs of a Blocked Bile Duct

If you have any of these symptoms of a blocked bile duct, see your doctor right away:

- pain lasting more than 5 hours
- nausea and vomiting
- fever
- yellowish skin or eyes
- clay-colored stool

Here are some step you can take to help prevent gallstones.

- Maintain a healthy weight.
- If you need to lose weight, do it slowly—no more than ½ to 2 pounds a week.
- Eat a low-fat, low-cholesterol diet.





Can't drink milk? You may have lactose intolerance.

Lactose intolerance is a common digestive disorder. It means your body can't digest lactose, the sugar found in milk products. After eating foods with lactose, you may have nausea, cramps, bloating, gas, or diarrhea. Lactose intolerance is not serious but can be quite uncomfortable. You can easily control it by changing your diet.

You may not have to give up milk products entirely. Some people with lactose intolerance can eat yogurt or aged cheeses, like cheddar and Swiss, with no problem. Lactose-reduced milk is widely available. And taking supplements that contain lactase—the enzyme that breaks down lactose in the intestines—can help you digest dairy foods. You can find lactase supplements at most grocery and drug stores.

Gastroesophageal reflux disease (GERD)

If you have ever felt food or fluid rise from your stomach into your throat, then you know what gastroesophageal reflux (GER) feels like. You may know it as acid reflux or acid indigestion. GER occurs when the ring of muscle between the lower part of the esophagus and the stomach opens at the wrong time. This muscle, called the lower esophageal sphincter (e-SOF-uh-JEE-uhl SFEENK-tur), opens when you swallow to let food pass into the stomach, then closes again. In GER, the sphincter relaxes when it shouldn't and allows stomach contents to flow back into the esophagus.

If you have GER more than twice a week, you may have gastroesophageal reflux disease (GERD). The main symptom of GERD is frequent heartburn—a burning sensation in your chest or throat. But some adults and most children with GERD don't have heartburn. Instead,

they may have a dry cough, asthma symptoms, or trouble swallowing.

It's not always clear why some people get GERD, but a hiatal hernia may be one factor. In this condition, the upper part of the stomach protrudes into the chest through the diaphragm—the muscle wall that separates the abdomen from

Complications of GERD

Over time, untreated GERD can damage the lining of the esophagus. This damage can cause bleeding or ulcers. Scar tissue can narrow the esophagus and make it hard to swallow. Some people develop abnormal cells in the lining of the esophagus, called Barrett's esophagus. This condition affects more men than women and usually occurs in people older than 60. Rarely, Barrett's esophagus can progress to cancer of the esophagus.

Keeping Your Digestive System Healthy

- Don't smoke.
- Maintain a healthy weight.
- Eat a balanced diet.
- Get regular physical activity.
- Learn how to reduce stress.

the chest. When this happens, it's easier for stomach contents to rise into the esophagus.

Being overweight puts extra pressure on the stomach and diaphragm, making acid reflux more likely. So does pregnancy. What's more, the pregnancy hormone progesterone (proh-JESS-tuh-rohn) can contribute to GERD. Progesterone relaxes many of your muscles, including the lower esophageal sphincter.

Smoking can make symptoms worse. So can some foods, such as citrus fruits,

chocolate, caffeinated drinks, and fatty or fried foods.

Making changes in your lifestyle may help ease the symptoms of GERD.

- If you smoke, stop.
- Avoid foods and drinks that worsen symptoms.
- Lose weight if you are overweight.
- Eat small, frequent meals.
- Wear loose-fitting clothes.
- Avoid lying down for 3 hours after a meal.
- Raise the head of your bed 6 to 8 inches by putting wood blocks under the bedposts. Just using extra pillows will not help.

Autoimmune disorders

Some digestive diseases are autoimmune (aw-toh-ih-MYOOON) disorders. (See the *Autoimmune Diseases* chapter on page 83 for more information.) These disorders oc-

Hepatitis A, B, and C: Preventable Liver Diseases

Hepatitis is inflammation, or swelling, of the liver. It can be caused by the hepatitis A, B, or C viruses. Hepatitis A spreads through food or water contaminated by the feces of an infected person. You can get hepatitis B through contact with infected blood, semen, or other body fluids. The virus can also pass from mother to child during childbirth. Hepatitis C is spread mainly through contact with infected blood.

Hepatitis A can cause flu-like symptoms and usually resolves on its own in a few weeks. But the hepatitis B and C viruses can cause chronic, or long-term, infection. Chronic hepatitis can lead to cirrhosis (sur-ROH-suhss), when scar tissue builds up in the liver and replaces healthy tissue.

Good hygiene, avoiding tap water when traveling to developing countries, and a vaccine all protect against hepatitis A. The hepatitis B vaccine protects people who may be exposed to the virus. There is no vaccine for hepatitis C. The only way to prevent the disease is to avoid sharing drug needles or toothbrushes, razors, and other personal items with an infected person.



cur when the body's immune system mistakenly attacks different parts of the body. Autoimmune digestive diseases include:

- inflammatory bowel disease
- celiac disease
- autoimmune hepatitis
- primary biliary cirrhosis

Inflammatory bowel disease

Inflammatory bowel disease (IBD) is chronic inflammation of the digestive tract. The most common forms of IBD are Crohn's (kroh-nz) disease and ulcerative colitis (UHL-sur-uh-tiv koh-LEYE-tuhss). Crohn's disease can affect any part of the digestive tract, causing swelling that extends deep into the lining of the affected organ. It most often affects the lower part of the small intestine. Ulcerative colitis affects the colon or rectum, where sores called ulcers form on the top layer of the intestinal lining. Most people with IBD have abdominal pain and diarrhea, which may be bloody.

Other people have rectal bleeding, fever, or weight loss. IBD can also cause problems in other parts of the body. Some people develop swelling in the eye, arthritis, liver disease, skin rashes, or kidney stones.

In people with Crohn's disease, swelling and scar tissue can thicken the wall of the intestine and create a blockage. Ulcers can tunnel through the wall into nearby organs such as the bladder or vagina. The tunnels, called fistulas, can become infected and may need surgery.

No one knows for sure what causes IBD, but researchers think it may be an abnormal immune response to bacteria that live in the intestines. Heredity may play a role, because it tends to run in families. IBD is more common among people of Jewish heritage. Stress or diet alone does not cause IBD, but both can trigger symptoms. IBD occurs most often during the reproductive years.

IBD and Pregnancy

It's best to get pregnant when your IBD is not active (in remission). Women with IBD usually don't have more trouble getting pregnant than other women. But if you have had a certain type of surgery to treat IBD, you may find it harder to get pregnant. Also, women with active IBD are more likely to miscarry or have preterm or low-birth-weight babies. If you are pregnant, work closely with your doctors throughout pregnancy to keep your disease under control. Many of the drugs used to treat IBD are safe for the developing fetus.

IBD can affect your life in other ways. Some women with IBD have discomfort or pain during sex. This may be a result of surgery or the disease itself. Fatigue, poor body image, or fear of passing gas or stool can also interfere with your sex life. Even though it may be embarrassing, be sure to tell your doctor if you are having sexual problems. Painful sex could be a sign that your disease is getting worse. And talking with your doctor, a counselor, or a support group may help you find ways to address emotional issues.

Currently, IBD cannot be prevented. But you can make some lifestyle changes that can ease your symptoms.

- Learn what foods trigger your symptoms and avoid them.
- Eat a nutritious diet.
- Try to reduce stress through physical activity, meditation, or counseling.

Researchers are studying many new treatments for IBD. These include new drugs, supplements of “good” bacteria that help keep your intestines healthy, and other ways to reduce the body’s immune response.

Celiac disease

People who have celiac disease (also known as celiac sprue) can’t tolerate gluten, a protein found in wheat, rye, and barley. Gluten is even in some medicines. When people with celiac disease eat foods or use products that have gluten in them, the immune system responds by damaging the lining of the small intestine. This damage interferes with the body’s ability to absorb nutrients from



food. As a result, a person with celiac disease becomes malnourished, no matter how much food she eats.

Celiac disease runs in families. Sometimes the disease is triggered—or becomes active for the first time—after surgery, pregnancy, childbirth, a viral infection, or severe emotional stress.

Celiac disease affects people differently. Symptoms may occur in the digestive system or in other parts of the body. For example, one person might have diarrhea and abdominal pain, whereas another person may be irritable or depressed. Some people have no symptoms.

Because malnutrition affects many parts of the body, the impact of celiac disease goes beyond the digestive system. Celiac disease can lead to anemia (uh-NEE-mee-uh) or the bone-thinning disease osteoporosis (OSS-tee-oh-puh-ROH-suhss). Women with celiac disease may face infertility or miscarriage.

The only treatment for celiac disease is to follow a gluten-free diet. If you have celiac disease, work with your doctor or a dietitian to develop a gluten-free diet plan. A dietitian can help you learn how to read ingredient lists and identify foods

that contain gluten. These skills will help you make the right choices at the grocery store and when eating out.

The chart below lists examples of foods you can eat and foods you should avoid if you have celiac disease.

Gluten-Free Diet Examples			
Gluten-free grains and starches	<ul style="list-style-type: none"> • Amaranth • Arrowroot • Buckwheat • Cassava • Corn • Flax • Indian rice grass 	<ul style="list-style-type: none"> • Job's tears • Legumes • Millet • Nuts • Potatoes • Quinoa • Rice 	<ul style="list-style-type: none"> • Sago • Seeds • Soy • Sorghum • Tapioca • Wild rice • Yucca
Foods to avoid	<ul style="list-style-type: none"> • Barley • Rye • Triticale (a cross between wheat and rye) 	<ul style="list-style-type: none"> • Wheat, including: <ul style="list-style-type: none"> • einkorn • emmer • spelt • kamut 	<ul style="list-style-type: none"> • wheat starch • wheat bran • wheat germ • cracked wheat • hydrolyzed wheat protein
Other terms for wheat	<ul style="list-style-type: none"> • Bromated flour • Durum flour • Enriched flour • Farina 	<ul style="list-style-type: none"> • Graham flour • Phosphated flour • Plain flour 	<ul style="list-style-type: none"> • Self-rising flour • Semolina • White flour

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Autoimmune Liver Diseases

Autoimmune hepatitis and primary biliary cirrhosis (BIL-ee-air-ee sur-ROH-suhss) are rare liver diseases that affect mainly women. In autoimmune hepatitis, the body's immune system attacks and damages liver cells. In primary biliary cirrhosis, the bile ducts are slowly destroyed. Both diseases can lead to cirrhosis. Symptoms include fatigue, itchy skin, and yellowing skin and eyes. Autoimmune hepatitis can also cause joint pain and abdominal discomfort. Dry eyes and mouth are common in primary biliary cirrhosis.

If caught early, autoimmune hepatitis can usually be controlled with drugs that suppress, or slow down, an overactive immune system. This helps keep the immune system from attacking and damaging liver cells. Treatment for primary biliary cirrhosis is aimed at slowing the progress of the disease and relieving symptoms. In both conditions, a liver transplant may be needed if liver damage is severe.

Diagnosis and Treatment of Digestive Disorders

Irritable bowel syndrome

Symptoms	<ul style="list-style-type: none"> • Cramping • Abdominal pain or discomfort • Bloating • Constipation • Diarrhea
Diagnosis	<ul style="list-style-type: none"> • Review of symptoms • Diagnostic tests to rule out other gastrointestinal problems
Treatment	<ul style="list-style-type: none"> • No cure, but symptoms can be treated • Dietary changes • Medications (over-the-counter and prescription) • Stress management

Gallstones

Symptoms	<ul style="list-style-type: none"> • Pain in right upper abdomen, under right shoulder, or between shoulder blades • Nausea and vomiting • Fever • Yellowish skin or eyes • Clay-colored stool
Diagnosis	<ul style="list-style-type: none"> • Ultrasound • Sometimes other tests, such as a computed tomography (tuh-MOG-ruh-fee) (CT) scan or an endoscopic procedure that uses a long, flexible tube with a camera inserted down the throat, through the stomach, and into the small intestine to detect problems in the nearby gallbladder and bile ducts
Treatment	<ul style="list-style-type: none"> • Gallbladder removal • Stone removal with an endoscope • Sometimes drugs to dissolve gallstones

GERD

Symptoms	<ul style="list-style-type: none"> • Frequent heartburn (in adults) • Sometimes dry cough, asthma symptoms, or trouble swallowing
Diagnosis	<ul style="list-style-type: none"> • Review of symptoms • Diagnostic tests such as x-rays or endoscopic procedure to look for abnormalities if symptoms don't respond to lifestyle changes or medication
Treatment	<ul style="list-style-type: none"> • Lifestyle changes • Medications (over-the-counter and prescription) • Surgery to strengthen the sphincter or repair a hiatal hernia

Diagnosis and Treatment of Digestive Disorders

Inflammatory bowel disease	
Symptoms	<ul style="list-style-type: none"> • Abdominal pain • Diarrhea, which may be bloody • Less common symptoms <ul style="list-style-type: none"> • rectal bleeding • weight loss • fever • fatigue • mouth ulcers (in Crohn's disease) • painful or difficult bowel movements (in ulcerative colitis)
Diagnosis	<ul style="list-style-type: none"> • Blood tests • Stool sample • Colonoscopy (KOH-luhn-OSS-kuh-pee) or sigmoidoscopy (SIG-moi-DOSS-kuh-pee), using a long, flexible tube with a camera that is inserted through the rectum into the intestine • Barium x-rays
Treatment	<ul style="list-style-type: none"> • Medication • Surgery
Celiac disease	
Symptoms	<ul style="list-style-type: none"> • Abdominal bloating and pain • Diarrhea or constipation • Weight loss or weight gain • Fatigue • Missed menstrual periods • Itchy skin rash called dermatitis herpetiformis (DUR-muh-TEYE-tuhss hur-PET-uh-FOR-muhss)
Diagnosis	<ul style="list-style-type: none"> • Blood tests • Small intestine biopsy
Treatment	<ul style="list-style-type: none"> • Gluten-free diet

Digestive problems can range from mild to severe. You can overcome many problems by making simple lifestyle changes—watch what you eat, maintain a healthy weight, learn to deal with stress, and if you smoke, quit. Other di-

gestive problems require medication or even surgery. New treatments for IBS, IBD, and even celiac disease are on the horizon. If you are concerned about your digestive health, work with your doctor to find the solution that's right for you. ■

One Woman's Story

I was fresh out of graduate school, working at my first job, living in my first house with a new dog, and serving as a bridesmaid in a horrible wedding. I didn't have time for health problems. But a constant dull pain and trouble "going" in the morning, combined with mucus, blood, and more pain, proved me wrong and sent me to a gastroenterologist.

My grandfather's death from colon cancer weighed at the back of my mind, but luckily I wasn't at that point. The doctor quickly and easily diagnosed me with ulcerative colitis and scheduled a colonoscopy. After the pain of the disease and the less-than-pleasant diagnostic procedure, the first steroid treatment made me feel like a million bucks! I had a surge of energy and endurance that encouraged my obsession with physical activity. The aftereffects were not so pleasant, though. I puffed up with chipmunk cheeks, lost 30 to 40 percent of my hair, and broke out in a rash. A sulfa drug was the next treatment, but my reactions

were no better: extreme sensitivity to the sun and flu-like symptoms, which did nothing to help me maintain my physical activity. Eventually, I found that 12 tablets a day of yet another medicine would barely keep the issue under control. Not wanting to be dependant on 12 pills a day forever, I did my own research on healthy eating for people diagnosed with irritable bowel syndrome, colitis, ulcers, and other digestive issues.

I soon found that eliminating or eating more of any one type of food didn't help, and that listening to my body, not following a specific diet, was best. I got to know what foods my body needed and which to avoid. For me, I found it helpful to avoid fruit after noon and fluids with meals and to make sure I have carbohydrates at every meal.

I also changed my physical activity routine. While I still enjoy intense workouts like cycling, running, or hiking, yoga has really helped me be more in tune with how outside experiences affect me and also how foods affect me. Now that I am in control of my disease, I hope I will be able to work with my doctor to eliminate medication slowly and replace it with alternative methods of eating well and practicing yoga.

Susan

Denver, Pennsylvania

**...listening to my
body, not following
a specific diet,
was best.**

For More Information...

Office on Women's Health, HHS

200 Independence Ave SW, Room 712E
Washington, DC 20201

Web site: www.womenshealth.gov/faq/ibd.htm

www.womenshealth.gov/faq/ibs.htm

Phone number: (800) 994-9662,
(888) 220-5446 TDD

National Digestive Diseases Information Clearinghouse, NIH

2 Information Way

Bethesda, MD 20892-3570

Web site: www.digestive.niddk.nih.gov

Phone number: (800) 891-5389

American College of Gastroenterology

PO Box 342260

Bethesda, MD 20827-2260

Web site: www.acg.gi.org/patients

American Gastroenterological Association

4930 Del Ray Ave

Bethesda, MD 20814

Web site: www.gastro.org/patient

American Liver Foundation

75 Maiden Ln, Suite 603

New York, NY 10038

Web site: www.liverfoundation.org

Phone number: (800) 465-4837

Crohn's and Colitis Foundation of America

386 Park Ave S, 17th floor

New York, NY 10016

Web site: www.ccfa.org

Phone number: (888) 964-8872

International Foundation for Functional Gastrointestinal Disorders

PO Box 170864

Milwaukee, WI 53217-8076

Web site: www.iffgd.org,

www.aboutibs.org,

www.aboutgimotility.org

Phone number: (888) 964-2001

National Foundation for Celiac Awareness

PO Box 544

Ambler, PA 19002-0544

Web site: www.celiaccentral.org

Phone number: (215) 325-1306

