

preparing for a
**CAPSULE
ENDOSCOPY**

A patient's guide from your doctor and

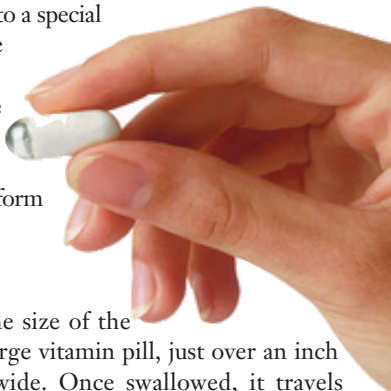




Your doctor has recommended that you have a capsule endoscopy to evaluate part of your digestive system. The AGA Institute is providing you this brochure to help you understand how a capsule endoscopy can benefit you and what you can expect before, during and after this procedure.

A journey through the gut

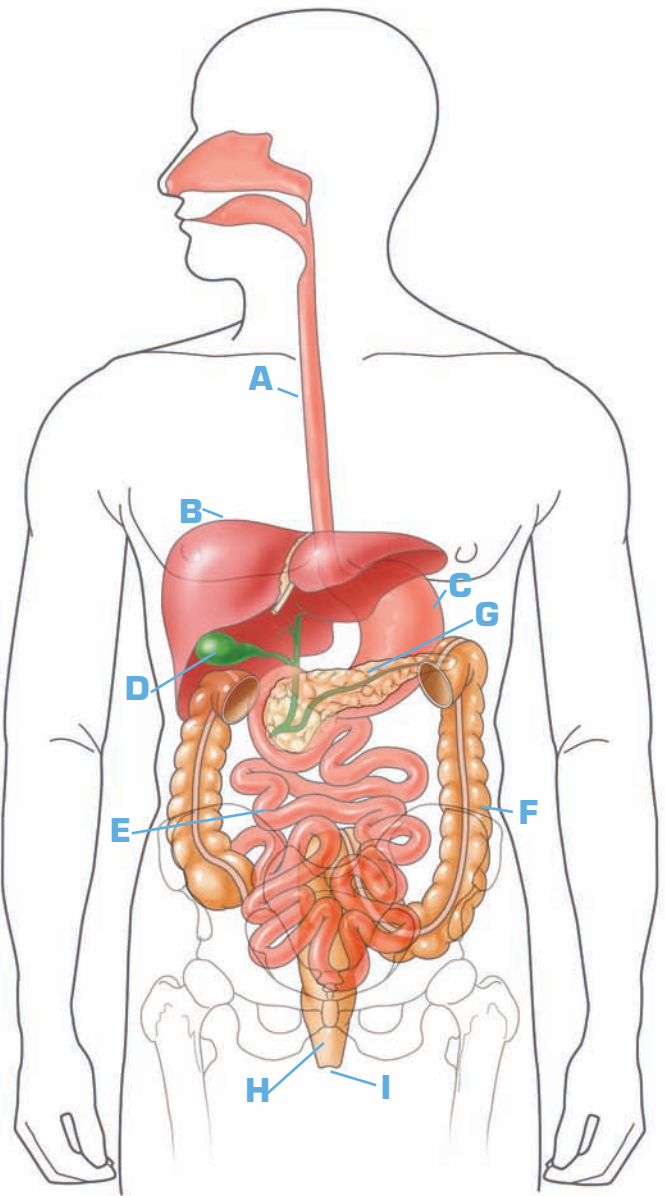
The term **endoscopy** refers to a special technique for looking inside the digestive tract. **Capsule endoscopy** uses a video capsule that contains a miniature color video camera with a light, transmitter and batteries to perform a painless examination of your esophagus and small intestine.



You may be surprised at the size of the capsule — it is the size of a large vitamin pill, just over an inch long and less than ½ inch wide. Once swallowed, it travels through the gastrointestinal (GI) tract, sending multiple images a second to a recording device worn around your waist. The capsule will not be absorbed or digested, but will move through your digestive system and be eliminated through a normal bowel movement.

Each capsule is designed for a single use, and will not harm the environment or your household plumbing.

Your Digestive System



A. Esophagus

B. Liver

C. Stomach

D. Gallbladder

E. Small Intestine

F. Large Intestine

G. Pancreas

H. Rectum

I. Anus

Capsule Endoscopy Uses

Capsule endoscopy provides your doctor with images of your digestive system that cannot be captured with conventional X-rays.

Your gastroenterologist will use the images transmitted by the capsule to diagnose and evaluate a variety of conditions, including:

- ▶ Gastroesophageal reflux disease (GERD)
- ▶ Diarrhea
- ▶ Polyps
- ▶ Anemia and bleeding
- ▶ Bowel function
- ▶ Malabsorption
- ▶ Abdominal pain
- ▶ Tumors and some cancers
- ▶ Celiac sprue
- ▶ Crohn's disease

Your gastroenterologist may also use capsule endoscopy to monitor the progress of treatment plans for these conditions. If your doctor detects a serious problem in your esophagus, you may need to undergo a conventional endoscopy to confirm diagnosis and, possibly, to receive treatment.

To learn more about upper GI endoscopy, read the AGA Institute brochure on that topic in your gastroenterologist's office or visit www.gastro.org/patient.

Preparing for the Test

There are important steps you must take to safely prepare for and participate in the procedure, including:

- ▶ Provide your doctor a complete list of all the medicines you are taking and any allergies you have to drugs or other substances.
- ▶ Tell your gastroenterologist if you have a pacemaker or other implanted electromedical devices.
- ▶ Discuss conditions such as previous abdominal surgery, swallowing problems or previous history of obstructions in the bowel that may impact the test.
- ▶ For esophageal capsule endoscopy, you must fast for two hours.
- ▶ For small bowel capsule endoscopy, you should not eat or drink within 10 hours of your procedure. Male patients may also need to shave the area around the navel.
- ▶ Do not take any medication in the two hours before your test time.
- ▶ Do not smoke for 24 hours before the test.

On the day of your test, come to your doctor's office dressed in loose fitting, two piece clothing. Your gastroenterologist, or a member of the medical staff, will review the procedure with you and make sure that you understand what will be done.

If there is anything you don't understand, ask for more information!

During the Test...

Esophageal Capsule Endoscopy

Before beginning the test, a member of the medical team will place sensors on your chest using adhesive patches. These sticky patches are connected by wires to a recording device, which you will wear around your waist during the entire procedure.

When you are ready to begin, you will swallow the video capsule with water while lying flat on your back. Every two minutes for six minutes you will be raised by 30 degrees until you are sitting upright; you will remain upright for an additional 15 minutes to make sure the capsule has traveled the length of the esophagus. Sitting up gradually slows the movement of the capsule, allowing time for extra pictures to be taken.

During the test, the small light on the data recorder will blink to confirm that it is receiving data.

After 20 minutes, the test is complete and the sensors will be removed. You are then free to leave the office while your doctor begins downloading and analyzing the information from the data recorder.

Small Bowel Capsule Endoscopy

For a small bowel capsule endoscopy, the sensors will be placed on your abdomen using sticky patches and connected by wires to a recording device, which you will wear around your waist during the entire procedure.

You will swallow the capsule with water — sitting or standing — at your gastroenterologist's office or the hospital, and then you will be allowed to leave and go about your regular routine. You will be given a form to record the time and nature of sensations and activities, including eating and drinking.

Four hours after you swallow the capsule, you may eat a light snack, unless your gastroenterologist tells you otherwise. You should avoid strenuous physical activity, especially if it involves sweating, and should not bend or stoop during the test.

During the test, the small light on the data recorder will blink to confirm that it is receiving data. If it stops blinking, contact your physician.

After eight hours, you'll return to your doctor's office, where the sensors will be removed and you will turn in the data recorder and your activity log.

After Capsule Endoscopy

After the procedure, you will need to return the data recorder and sensors to your doctor's office. Your gastroenterologist will download the data from the recorder and will view a color video of the pictures.

In a few days, you will hear from your doctor with the results of your capsule endoscopy. You may have questions you want to ask the doctor about your results or the potential next steps in your treatment plan.

The capsule will continue passing through your digestive tract and will be eliminated through a normal bowel movement in the next two to three days. While it is important to know that the capsule has in fact exited your system, there is no need to attempt to retrieve the device.

Possible Complications

There have been few side effects reported with capsule endoscopy. You should contact your gastroenterologist immediately if you:

- ▶ Develop a fever after swallowing the capsule
- ▶ Have trouble swallowing
- ▶ Begin to vomit
- ▶ Experience increasing chest or abdominal pain

Cramping and abdominal discomfort have not yet been reported during the capsule endoscopy procedure.

Very rarely, the capsule can become stuck in the digestive tract due to a blockage or narrowing of the intestines. In this case, surgery may be required to remove the capsule. You are at a higher risk of blockage if you have a history of bowel obstruction or previous gastrointestinal surgery — be sure to discuss the risks with your doctor before the procedure. If you cannot positively confirm that the capsule has been excreted from your body within a week, contact your gastroenterologist for an evaluation and possible abdominal X-ray to establish the location of the capsule.

You should not undergo a Magnetic Resonance Imaging (MRI) examination or be near any powerful magnetic fields (such as amateur or ham radio) until after the capsule is excreted. Doing so could result in serious damage to your intestinal tract and abdominal cavity.

Although a relatively new procedure, capsule endoscopy is a safe, effective means of examining your esophagus and small intestine. Talk to your doctor about any concerns you may have about this procedure.

Go to www.gastro.org/patient for more information on digestive health and tests performed by gastroenterologists and to find an AGA member physician in your area.

The American Gastroenterological Association (AGA) is dedicated to the mission of advancing the science and practice of gastroenterology. Founded in 1897, the AGA is one of the oldest medical-specialty societies in the U.S. Our 16,000 members include physicians and scientists who research, diagnose and treat disorders of the gastrointestinal tract and liver. The AGA Institute runs the organization's practice, research and educational programs.

The content in the series of AGA Institute patient education brochures was reviewed by the following gastroenterologists:

John I. Allen, MD, MBA, AGAF

*Minnesota Gastroenterology
Chair, AGA Clinical Practice & Quality
Management Committee*

Harry R. Aslanian, MD

Yale University School of Medicine

Stephen J. Bickston, MD, AGAF

University of Virginia Health System

Joel V. Brill, MD, AGAF

*Predictive Health LLC
Chair, AGA Practice Management
& Economics Committee*

Marcia I. Canto, MD, MHS

Johns Hopkins University

Richard Davis, Jr. PA-C

University of Florida College of Medicine

Mark H. DeLegge, MD, AGAF

Medical University of South Carolina

Kenneth DeVault, MD

Mayo Clinic, Jacksonville

Stephen W. Hiltz, MD, MBA, AGAF

TriState Gastroenterology

Lawrence R.

Kosinski, MD, MBA, AGAF

Elgin Gastroenterology, S.C.

Linda A. Lee, MD, AGAF

Johns Hopkins School of Medicine

Stephen A. McClave, MD, AGAF

University of Louisville School of Medicine

Kimberley Persley, MD

Texas Digestive Disease Consultants

John Schaffner, MD

Mayo Clinic, Rochester

Joanne A.P. Wilson, MD, FACP, AGAF

Duke University Medical Center

Cynthia M. Yoshida, MD, AGAF

University of Virginia Health System

Atif Zaman, MD, MPH

Oregon Health and Science University



AGAINSTITUTE
AGA Education, Practice and Research



The Digestive Health Initiative® (DHI) is an AGA Institute initiative that offers educational programs on digestive disorders for individuals who are affected by a digestive disease, in an effort to educate the larger health-care community.

This brochure was produced by the AGA Institute and funded by a grant from Takeda Pharmaceuticals North America, Inc.



**For more information about digestive diseases,
please visit the AGA Web site at www.gastro.org.**

The AGA Institute offers the information in these brochures for educational purposes to provide accurate and helpful health information for the general public. This information is not intended as medical advice and should not be used for diagnosis. The information in these brochures should not be considered a replacement for consultation with a health-care professional. If you have questions or concerns about the information found in these brochures, please contact your health-care provider. We encourage you to use the information and questions in these brochures with your health-care provider(s) as a way of creating a dialogue and partnership about your condition and your treatment.