

What is capsule endoscopy?

Capsule endoscopy is also known as pill-camera or wireless endoscopy. Capsule endoscopy is used mainly to pinpoint bleeding in hidden areas in the small bowel. It is more sensitive than many other techniques. Capsule endoscopy discovers a source of bleeding in approximately 60 - 70% of patients. It is also useful for tracking small bowel tumours and obscure abdominal pain. Capsule endoscopy uses a 10 x 27mm capsule (size of a jelly bean), which contains a tiny camera, batteries, light source and transmitter. After swallowing, the capsule travels like a piece of food through the gastrointestinal system. It provides high-resolution images of the stomach and small intestine, taking two pictures every second for up to 11 hours, providing about 60,000 pictures in total. Recording probes, taped on the abdomen, track the progress of the capsule. The images obtained by the capsule are transmitted to a data-recorder worn in a harness around the waist.

What do I need to do to prepare for the capsule?

You should fast (no food or drinks) for 8 hours before undergoing capsule endoscopy. Diabetics should withhold their diabetic medication during the fasting period. If you take insulin, this should be discussed with your doctor. You will be restricted to clear fluids after lunch the day prior to the test and most patients will need to take a small volume of bowel preparation (laxative) early in the evening prior to the day of the test.

What happens during the procedure?

On the day of the procedure, a harness, holding the data recorder, is worn for 8 hours after the capsule is swallowed. Gentle activity is encouraged while wearing the harness as this will aid the progress of the capsule. No fluids should be taken for 2 hours after the capsule is swallowed and solid food is not permitted to be eaten for 4 hours afterwards. A glass of water is permitted when swallowing the capsule.

What happens after the procedure?

Depending on where the test is performed, you will either return to the hospital 8 hours after swallowing the capsule to return the recording equipment, or remove the recording equipment at home at 10.30pm that evening and return it to the hospital the next morning. The information from the data-recorder is downloaded on a computer and the images are composed into a video to be examined by the doctor. The capsule is single use only and does not need to be retrieved. The capsule passes naturally in a stool within 1-3 days. Most patients are not aware it has passed. The capsule doesn't need to be retrieved and can be safely flushed down the toilet.

Are there any risks?

Capsule endoscopy is a very safe procedure. Complications of capsule endoscopy are very infrequent. The capsule has a gel coating which makes it easy to swallow. Less than 1 patient in 100 has difficulty swallowing the capsule. Abdominal pain or nausea after swallowing the capsule is extremely rare and should be reported immediately. Approximately 1 in 100 patients retain the capsule in the bowel. This may occur if the bowel is narrowed or has some other unusual anatomy. Usually the capsule will eventually pass. On rare occasions it will need to be removed endoscopically or surgically. The obstructing lesion can be corrected at the same time. If bowel narrowing is suspected your doctor may suggest an initial trial with a dissolvable (Patency) capsule. On the day of the test, approximately 1 in 10 patients may have a slow small bowel transit and the capsule may not be seen to reach the large bowel on the capsule endoscopy recording. An abdominal X-ray will then be arranged to check that the capsule has passed out of the bowel.