

Feds OK pill-size camera that uses Micron sensors New device may help physicians look for problems in the esophagus

Micron Technology Inc.'s Steve Appleton drew laughs last week when he held up a long, inch-thick tube used in colonoscopy exams and asked his audience if they wouldn't rather swallow a pill to let doctors see if their bowels are in order.

His audience — legislators and business leaders attending the annual Legislative Luncheon at the Boise Centre on The Grove — had no trouble seeing the benefits of the pill.

The Micron president, chairman and chief executive officer was touting the PillCam SB, a device that travels through the body and sends back pictures of the small bowel, using imaging sensors made by Micron.

This week, the Boise company announced that a second device, the PillCam ESO, had been approved by the Food and Drug Administration — this one designed to let doctors search for problems in the esophagus.

Both pills are made by Given Imaging of Israel, using sensors made exclusively by Micron as part of the Boise company's effort to diversify its product line.

The PillCam SB was first introduced in 2001 and was recognized as the first non-invasive method for direct visualization of the entire small intestine. Last month, that device was the recipient of The Wall Street Journal's Silver Award for Technology Innovation and won first place in the competition's medical category.

Micron broke into the imaging technology market three years ago, and company officials say it is now the fastest-growing part of Micron. A company spokesman said Micron is now "in the top two or three" in that market.

The new pill is an improvement over the original in three areas, according to Curtis Stith, Micron Imaging's marketing director for emerging markets:

- It can take pictures from both ends of the pill, while the first pill had only one lens.
- Each sensor can take seven frames a second, compared with two frames a second for the PillCam SB.
- The PillCam ESO uses less power, which gives it a longer active life as it works its way through a patient's system.

Those images are transmitted to a receiver worn by the patient and then studied by doctors looking for problems in the esophagus. The pill is not retrieved after it passes through the digestive system.

Industry analyst Morry Marshall of Semico Research Corp. in Phoenix said Micron is making impressive strides in the new field.

"I think Micron has done just unbelievably well to advance that technology as far as they have," Marshall said.

Marshall says if there is any drawback to Micron's success with things like the PillCam ESO, it may be that it won't get enough credit for its role.

"It's regrettable that it might be the person who sells the camera (Given Imaging) that gets the publicity, whereas Micron's technology should get credit for it."

He says creating something this dynamic is stunning, particularly for a relative newcomer.

"Imagine back in the 1950s, if somebody told you that there was a submarine that could go inside the human body. That was in the realm of fantasy. And here we've got something that actually does it." Like the PillCam SB, the PillCam ESO offers patients an easier way to submit to tests.

Right now, patients with heartburn or reflux often go through an endoscopy to look for problems after heart-related ailments are ruled out. In that procedure, the patient is sedated and the endoscope, a thin tube with a light and camera at the end, is snaked down through the esophagus. The doctor can take a good long look but it means a loss of work for the patient and a rather involved procedure.

Carol Lugar, clinical director for the Boise Endoscopy Center, said it's too early to know how well the PillCam ESO will work, but she said she recognizes how patients might appreciate its simplicity.

"There are patients who don't want to have an upper endoscopy so they may view swallowing a pill and having that take images as a simpler approach."

In March, the physicians at Boise Endoscopy Center will go through a hands-on education session where they will see exactly what the PillCam ESO can do. That's when Lugar says she and her group will learn just how valuable the device could be. "There's a lot of unknowns," she said, "but it's exciting."