The Laparoscopic Adjustable Gastric Band (LAGB) is another option for weight loss surgery available at St. Luke’s Hospital-Allentown Campus.

This is a relatively novel technique and tool in the bariatric armamentarium.

Beginning in the 1970s, gastric banding was offered as an alternative to gastric stapling. The original concept was developed in Scandinavia, and the early material used to create the band was similar to that used for vascular surgical grafts. The procedures placed tight plastic bands around the upper stomach, creating small proximal pouches.

Unfortunately, the initial experience with banding was poor and significant complications related to the band were seen. Problems included band migration, band erosion or pouch dilatation. Migration and erosion led to significant vomiting. Pouch dilatation or dietary noncompliance led to weight-loss failure.

In the late 1980s, gastric banding was rejuvenated with the introduction of adjustability. Kuzmak developed an adjustable silicone gastric band that had a hollow, expandable collar connected to a saline reservoir by a thin tube. The reservoir was placed below the skin on the abdominal wall. The band could be “tightened” by injection of saline into the reservoir or “loosened” by withdrawal of saline.

The next major breakthrough in band technology came in 1993, when a modified version of the gastric band was developed that could be inserted laparoscopically. First reported by Belachew and associates, the LAGB became popular in Europe, Australia, the Middle East, Mexico and other areas outside the United States.

The band is positioned on the upper stomach, just below the gastroesophageal junction, where it limits food intake by constricting the stomach to a shape similar to an hourglass. The upper chamber is a 20 to 30 ml gastric pouch (about one ounce).

The LAGB is a purely restrictive operation that causes no malabsorption, thereby dramatically reducing the concern for anemia, vitamin deficiencies or dumping syndrome. It mandates a substantial degree of compliance from the patient for success. Although there is a great majority of surgeons that are still learning about...
laparoscopic band placement, it is considered technically easier than the Gastric Bypass.

Over 200,000 LAGBs have been implanted worldwide so far. Several studies have documented its safety, but it was not until June of 2001 that the LAGB was available in the United States.

The FDA at the time approved the use of one version of the LAGB (Lap-Band® Allergan/Covidien). Recently another version (Realize Band® Ethicon) was also approved. Currently both options are offered to the bariatric population in the United States.

The most common complications reported that may lead to reoperation or removal of the LAGB are slippage, pouch dilatation, or band erosion. The incidence of such complications seems to have decreased with the development of certain technical modifications to the procedure, but they can still occur.

Pouch dilatation, with or without esophageal dilatation, may be related to overfilling of the band. Currently the risk of erosion is about one to two percent and slippage is two to four percent. The mortality is about 0.1%.

Overall, there is a 10 percent complication rate, but most of the complications are minor and related to the reservoir. The weight loss with the LAGB is reported to vary from 40 to 60 percent of excess weight, significantly lower than observed with the gastric bypass.

Once again this is a relatively new tool in the bariatric world. It may not work for everyone, but it can work for a select group of patients who are committed to modifying their eating habits and lifestyles.

Dr. Claros and Tarah Annoni, certified surgical technologist, along with Maureen Miletics and Terri Davis, increased their bariatric surgery knowledge by attending an

“The Laparoscopic Adjustable Gastric Band is Here” by
Leonardo Claros, MD, Bariatric Surgeon
In addition to clinical skills, they learned success increases when patients are better able to track their diet, exercise and weight loss. Both makers of the Laparoscopic Adjustable Gastric Band (Ethicon with the Realize Band and Allergan with the Lap Band) offer on-line programs to assist their patients achieve long-term weight loss success.