

Peroral Endoscopic Myotomy Procedure

Interventional Endoscopy and Advanced Therapeutic Endoscopy

At Penn State Health, our interventional endoscopy specialists perform leading-edge procedures with minimal disturbance to surrounding structures, making them much less invasive than traditional surgical options.

Peroral Endoscopic Myotomy (POEM) procedures include the following:

- **E-POEM for spastic disease of the esophagus** - Penn State Health Natural Orifice Surgery Working Group was among the first in the nation to treat the esophageal motility disorder achalasia, using a submucosal tunneling approach. As of 2023, [Dr. Abraham Mathew](#) has completed more than 350 esophageal POEM procedures, primarily for the treatment of achalasia, a disorder that makes it difficult for food and liquids to pass into the stomach. Other conditions that can often benefit from this approach include Jack hammer esophagus, diffuse esophageal spasm and esophageal diverticula with spasm. During the E-POEM procedure, the surgeon incises the muscle sphincter at the bottom end of the esophagus via a tunnel made in the esophageal wall. Because patients experience only minimal discomfort, the intervention is performed on an outpatient basis. Patients generally recover quickly and see a significant improvement in their ability to eat and drink.
- **Z-POEM for treatment of Zenker's diverticulum** - our team has extensive experience in providing a flexible endoscopic treatment for Zenker's diverticula. Patients with Zenker's diverticula also have difficulty eating and frequently choke. The upper esophageal sphincter is the cause of the symptoms. Using the Z-POEM technique, a surgeon accurately cuts the sphincter muscles, making it possible for the patient to swallow with ease. Z-POEM, performed on an outpatient basis, delivers significant symptom improvement for nearly all patients.
- **G-POEM for gastroparesis** - in the gastric or stomach POEM, the sphincter at the end of the stomach is the target. When cut, this muscle valve, which is called the pylorus, may allow for better emptying of the stomach's contents. G-POEM is an option for treating gastroparesis that is not controlled with diet (the mainstay treatment). Although treatment options are limited for this disease, appropriately selected patients may benefit from this procedure.
- **Incisional therapy of strictures** - incisional therapy can be an effective treatment for narrowing of the esophagus caused by scar tissue, when standard techniques have failed or led to repeated procedures. This is particularly helpful in anastomotic strictures, such as scar tissue buildup at a surgical connection in the gut organs from the esophagus to the rectum.