Until relatively recently, most colon and rectal surgeries, whether elective or unplanned, required a large abdominal incision to achieve. This would typically result in a moderate degree of postoperative discomfort, and would routinely result in an average of five to seven days in the hospital after surgery, with several additional weeks required after hospital discharge for complete recovery.

In response to these challenges, for the last 20 years, colorectal surgeons have been developing minimally invasive techniques to perform the full range of care for colon and rectal cancer, as well as for benign diseases such as ulcerative colitis, Crohn’s disease and diverticulitis, while using smaller points of access to the abdominal cavity. These technical advances have allowed for the surgical cure of diseases through three to five small incisions each of which is typically no larger than 1.5 centimeters. With these innovations, patient discomfort has been lessened, recovery has been expedited, and an improved cosmetic result has been provided, all while not compromising the quality of the surgery with respect to curing the underlying disease.

A recent, further advance in laparoscopic surgical technique for colorectal disease is called single-site laparoscopy, or SSL. SSL allows surgeons to treat colorectal problems, including the removal of cancers, through a single skin incision as opposed to multiple incisions. This single incision is often placed in the belly button so that the wound is barely visible after surgery. Just as importantly, a smaller incision limits postoperative pain, and helps to expedite a person's recovery. With few exceptions, most patients are able to begin eating solid food the evening of their surgery, and they are able to ambulate without difficulty once awake from anesthesia. Most patients undergoing SSL are discharged from the hospital in less than 72 hours from the time of their surgery. With respect to cancer, the combination of sphincter-sparing techniques and SSL allows for many patients to avoid a stoma (or "bag") while enjoying the benefits of a laparoscopic surgery that provides for an expedited recovery and return to full activity, as well as producing a superior cosmetic result.

The technique of SSL is quite new, and Penn State Hershey Medical Center is one of the few centers in the country at this point where SSL is routinely performed for colorectal disease on a weekly basis. Developments such as SSL represent the commitment of colorectal surgeons to provide a better experience for our patients through technical innovation.

Learn more about single-site laparoscopy in this video interview with Stewart:

Provided by Pennsylvania State University