

# Laparoscopic colectomy

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## Operative Planning for Laparoscopic Colectomy

No patient should undergo laparoscopic bowel surgery without a defined diagnosis. Colonoscopy, barium enemas, and computed tomography are all potentially useful in determining the diagnosis before operation; the choice of diagnostic modality should be governed by the patient's initial presenting signs and symptoms. The distance from the tumor to the anal verge is readily measured in the course of colonoscopy, but such measurement does not always result in accurate identification of the corresponding segment of diseased bowel intraoperatively. Furthermore, with the exception of the ileocecal valve (which remains a constant and easily identifiable landmark), the general shape and curves of the colon are indistinct. Therefore, it is recommended that India ink tattooing be used to mark lesions located in segments of the bowel outside the area of the ileocecal valve, thereby facilitating intraoperative localization of the tumor.

Patients who have a history of severe cardiopulmonary disease, hepatic disease, coagulopathy, significant respiratory compromise, or a complex colonic disorder (e.g., obstruction, contained perforation, or colovesical fistula) should not be considered for laparoscopic colectomy, nor should patients who are known to have extensive intra-abdominal adhesions. Patients who have tumors larger than 8 to 10 cm in diameter are also unsuitable candidates for laparoscopic colectomy. Larger specimens inevitably require larger incisions for removal; accordingly, patients with large tumors would benefit from having an appropriately sized incision in place from the beginning of the operation.

### Oncologic Outcomes

At present, there is a great deal of interest in the use of laparoscopy to resect colon cancers and to minimize the short-term morbidity associated with treatment of malignant diseases. There has been sufficient research into and experience with laparoscopic treatment of colorectal cancer to show that it is a feasible modality offering the same advantages as laparoscopic treatment of benign colonic disease. The heart of the current debate surrounding the application of laparoscopy to malignant colonic disease is the question of how a laparoscopic approach might affect long-term patterns of recurrence and survival.[1]

Concerns regarding the efficacy of laparoscopic colectomy for cancer have centered on the completeness of the bowel and lymph node resections. As noted, multiple studies have shown no differences between laparoscopic colectomy and open colectomy with respect to proximal and distal margins of resection or the adequacy of lymph node dissection. Most of the concerns regarding the incidence and pattern of recurrence after laparoscopic treatment were generated early in surgeons' experience with laparoscopic colectomy, and subsequent studies tended not to find substantial differences. However, further studies that include long-term follow-up to determine the adequacy of resection and the comparability of cure rates are needed to assess any changes in the long-term staging and survival patterns after laparoscopic colectomy.

### Trocar Placement

When placing the trocars, we favor a Hasson technique, in which the initial 12 mm port is placed through the left upper quadrant rectus muscle under direct vision. The reason we have come to prefer this location is that in the right upper quadrant, the falciform ligament frequently complicates access to the abdominal cavity. The second, third, and fourth ports are then placed under direct vision. Initial studies reported injuries to major intra-abdominal vessels in the course of port placement, but we have not encountered this problem with our technique. In addition, we favor minimizing the number of 10/12 mm ports used because the larger incisions can be difficult to repair accurately and may be associated with bowel herniation. Bowel herniation has not been reported at 5 mm port sites. The port sizes and instrument sizes necessary for colonic dissection are predictable; thus, a standardized approach, as outlined (for more information, see the full chapter), can be established with little difficulty.

Reference: <http://www.medscape.com/viewarticle/496510?rss>  
{youtube}UCNxJPiceMQ{/youtube}