

Colon and Rectal Cancer

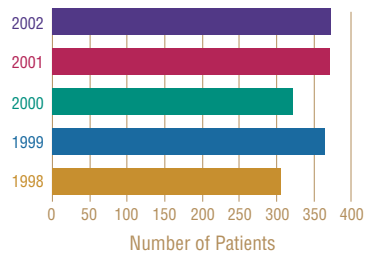
The Digestive Disease Center is at the forefront of colon polyp and cancer prevention through patient screening, education, detection and treatment. Prevention of colorectal neoplasms is one of the center's major research interests. The center is a study site for many large national and international trials of a variety of chemopreventive agents for sporadic adenomas and for inherited colorectal cancer syndromes such as familial adenomatous polyposis.

Colon Cancer

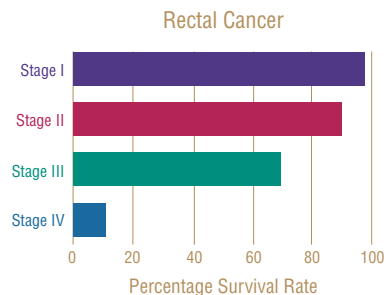
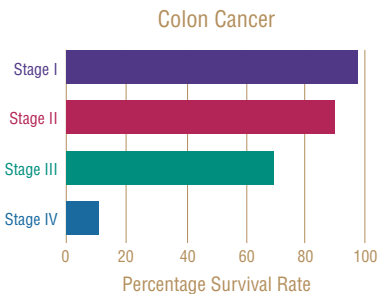
In most cases, patients with a cancer of the colon require a colectomy to remove the segment of bowel where the tumor lies. In more advanced cases, this may include removal of a contiguous organ to maximize the chance of cure. Clinic surgeons are experienced in the complexities of such major surgery and have ready access to collaborate with surgeons in other specialties when necessary.

Many patients who are referred have recurrent cancer after prior treatment elsewhere. These patients can be expeditiously assessed by the gastrointestinal imaging staff to allow strategic planning of complex reoperative surgeries.

Survival data for each stage of colon cancer are among the best published, and patients requiring surgery are frequently recruited into trials evaluating methods of improving recovery after surgery, which has been an increasing focus of the Digestive Disease Center in recent years.

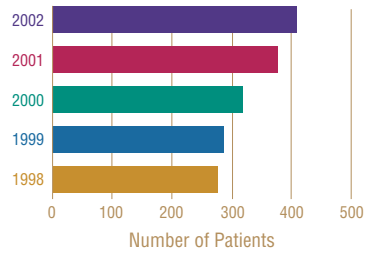


Cleveland Clinic Survival Rates for Colon and Rectal Cancer by Stage



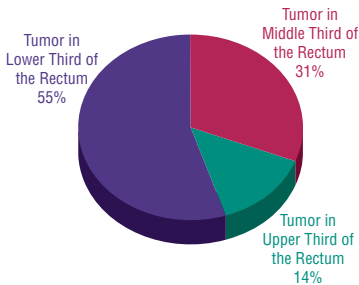
Rectal Cancer

Surgeons at the Digestive Disease Center have extensive experience with rectal cancer, and see one of the highest volumes of patients with this condition in the world. One of the things that sets the Digestive Disease Center apart is the number of treatment options available to save the sphincter and avoid the need for colostomy. These options include transanal excision, and radical surgery with anastomosis of the colon to the anus, incorporating a J-pouch or colopecty (see page 11). Clinic colorectal surgeons can avoid the need for a permanent colostomy in over 85 percent of cases while still achieving some of the lowest recurrence rates in the world. The detailed assessment of tumors required to make these decisions involves a comprehensive array of tests. Endoanal ultrasound and anal manometry are immediately available at the time of the office visit, avoiding a prolonged wait and second visits for treatment decisions. On average, 27 patients with early tumors can have them removed through the anal canal each year, eliminating the need for abdominal surgery.



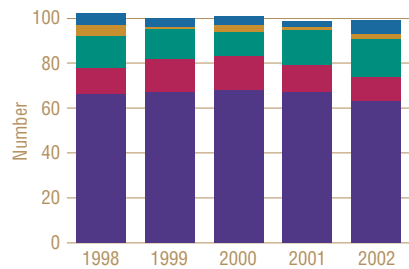
Complications are carefully monitored. Surgeons may use temporary defunctioning ileostomies for patients with low rectal cancer, particularly those with preoperative radiation. Immediate consultation with the enterostomal nurses can be obtained at the time of the initial office visit, so that the patient is fully aware of the outcome and treatment plan.

Low Rectal Cancer vs. All Rectal Cancers



*Mean distance of tumor from anal verge: 7.79 cm

Average Distribution of Surgery for Rectal Cancer



- Proctocolectomy - ileoanal pouch
- Proximal Diversion
- Local Therapy/Surgery
- Abdomino-Perineal Resection
- Low Anterior Resection Coloanal

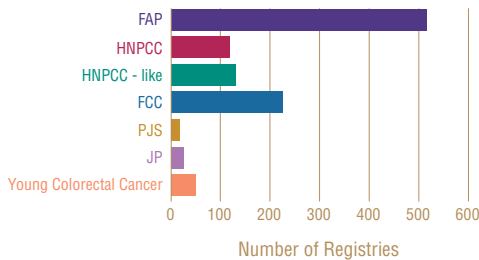
David G. Jagelman Inherited Colorectal Cancer Registries

The Cleveland Clinic is home to the largest single institutional registries in the United States and the second largest in the world. Individuals with multiple cases of colorectal cancer in their families or with an inherited colorectal cancer syndrome are eligible to participate in the registry and its associated High-Risk Hereditary Colon Cancer Clinic (see page 10).

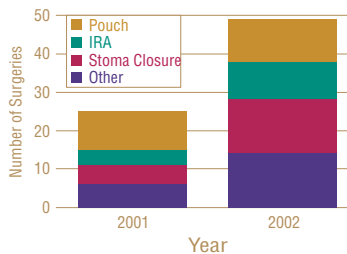
Members of the Jagelman Registries who have Hereditary Non-polyposis Colorectal Cancer (HNPCC) also may participate in the Collaborative Family Registry (CFR). The CFR is part of an international effort to study both the genetic and lifestyle causes of colorectal cancer. The CFR is sponsored by a National Cancer Institute grant and is managed by the Cleveland Clinic's Department of Medical Genetics and the Digestive Disease Center. This collaboration between departments led to the recent five-year, \$2 million grant renewal from the NCI for the registry.

In the Phase 3 study, 120 families will receive active and passive follow-up. More than 400 participants will be interviewed. In addition, 60 colorectal cancer surgery patients without a family history will be recruited, as well as 20 new high-risk families. About 120 family members will be recruited to participate in the collection of epidemiological and biospecimen data.

Familial Colorectal Cancer Registries Breakdown of Families



Colon Surgeries for FAP



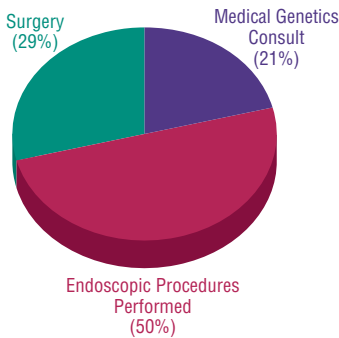
Adenoma Registry

This computerized registry of patients who have had neoplastic polyps removed from the colon has more than 10,000 patients and is the largest such registry in the country. It provides a means to send recall letters to patients who are due for surveillance colonoscopy. The recall interval follows nationally recognized recommendations for polyp surveillance. In addition, it is a vast informational resource for clinical research on patients with polyps. It also aids patient recruitment for most of our studies, including the chemoprevention trials. Research from the Adenoma Registry has allowed risk stratification for colorectal neoplasia and impacted the lengthening of post-polypectomy surveillance intervals.

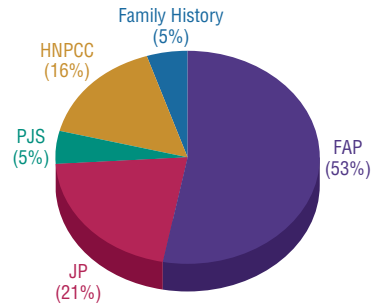
High-Risk Hereditary Colon Cancer Clinic

A multidisciplinary inherited colon cancer high-risk clinic was established in 2001. Patients with a dominantly inherited colon cancer syndrome who require multispecialty care are encouraged to participate. The clinic is held once a month on Monday afternoon in the Digestive Disease Center. Patients have the opportunity to consult with physicians, genetic counselors, and the Jagelman Registries registrar. Additionally, they may undergo any necessary procedures or genetic testing on the day of their consultation.

2002 High-Risk Clinic Services Utilized by Patients Seen for Consultation



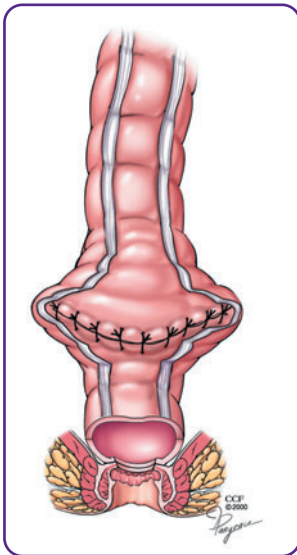
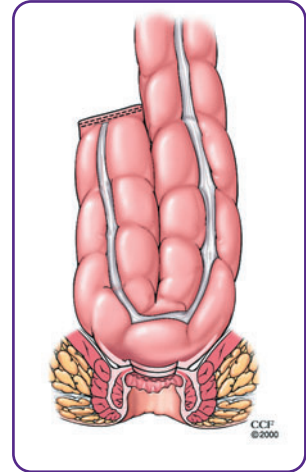
2002 High-Risk Clinic Breakdown by Syndrome of Patients Seen



Innovations

Colonic J-pouch

Clinic surgeons have extensive experience with this technique for reanastomosis of the colon to the anus in those patients with the lowest rectal cancers. The technique permits improved function for these patients and may reduce the risk of complications, such as anastomotic leak.



Coloplasty

The coloplasty pouch is a new technique that has been extensively pioneered and studied by Clinic surgeons. It is a new option following reconstruction of an ultra-low rectal anastomosis, which improves the function of patients who might otherwise have undergone a straight colorectal anastomosis due to an anatomically narrow pelvis. This is frequently seen in male patients.

Contact radiotherapy

The Cleveland Clinic is one of five centers in the world that offers contact radiotherapy. It can be very effective and is administered through the anal canal without requiring surgery. The technique is particularly suited to those who are infirm or have other major medical co-morbidities.

Intraoperative radiotherapy

Intraoperative radiation therapy has the advantage of irradiating the tumor bed while protecting surrounding normal organs from radiation. This approach has been especially useful when the required radiation dose exceeds the tolerance dose of the surrounding normal tissues. The technique, only available in selected institutions and at The Cleveland Clinic, is delivered in conjunction with the radiotherapists who come to the Clinic's operating rooms to deliver the radiation.

Laparoscopic colon cancer surgery

Surgeons in the Department of Colorectal Surgery have been involved in research studies into the safety and efficacy of laparoscopic resection of colorectal cancer since the technique was first described. The technique is now offered to carefully selected, appropriate patients after a full discussion of all surgical options.