Surgical Options for Patients with Colorectal Cancer – When, How and What to Expect

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Surgical Options for Patients with Colorectal Cancer

- Staging
- Guidelines
- Goals of surgery
- Types of colon operations
- Post-operative care expectations
- Future developments
Surgical Options for Patients with Colorectal Cancer

What happens before an operation
The stage of disease indicates how far the tumor has spread from the original site

- Colonoscopy with biopsy
- CT scan
- Endoscopic Ultrasound for rectal cancer
- Blood Tests – Tumor marker CEA
Staging of Colon Cancer

T1 - invades submucosa
T2 – invades muscularis propria
T3 - invades into subserosa
T4 – invades other structure

N1 - 1-3 regional nodes
N2 - >3 nodes

M = metastasis to other organs

5 Year Survival Rates by Disease Stage

Local
Regional
Metastatic

<table>
<thead>
<tr>
<th>Stage of Detection</th>
<th>Local</th>
<th>Regional</th>
<th>Distant</th>
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<tbody>
<tr>
<td></td>
<td>91.4%</td>
<td>66.1%</td>
<td>8.5%</td>
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Local
Regional
Metastatic

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>T1-2 N0</td>
</tr>
<tr>
<td>II</td>
<td>T3-4 N0</td>
</tr>
<tr>
<td>III</td>
<td>T N1-2</td>
</tr>
<tr>
<td>IV</td>
<td>any T any N M1</td>
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Treatment Guidelines

Some reliable online resources

• NCCN – National Comprehensive Cancer Network (http://www.nccn.org)
• ASCO – American Society of Clinical Oncology (http://www.asco.org)
• American Cancer Society (http://www.cancer.org)

Sets standards for:

• Surgery
• Pathology
• Chemotherapy
• Radiation Therapy
• Follow-up plan
**Colon Cancer**

**Clinical Presentation**

- Pedunculated polyp (adenoma [tubular, tubulovillous, or villous]) with invasive cancer
  - Pathology review, Colonoscopy, Marking of cancerous polyp site (at time of colonoscopy or within 2 wks)
  - Single specimen, completely removed with favorable histological features and clear margins → Observe
  - Fragmented specimen or margin cannot be assessed or unfavorable histological features → Colectomy with en bloc removal of regional lymph nodes

- Sessile polyp (adenoma [tubular, tubulovillous, or villous]) with invasive cancer
  - Pathology review, Colonoscopy, Marking of cancerous polyp site (at time of colonoscopy or within 2 wks)
  - Single specimen, completely removed with favorable histological features and clear margins → Observe or colectomy
  - Fragmented specimen or margin cannot be assessed or unfavorable histological features → Colectomy with en bloc removal of regional lymph nodes

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**Notes:**

- All patients with colon cancer should be counseled for family history. Patients with suspected hereditary non-polyposis colon cancer (HNPCC), familial adenomatous polyposis (FAP) and attenuated FAP, see the NCCN Colorectal Cancer Screening Guidelines.
- Confirm the presence of invasive cancer (pT1), pTis has no biological potential to metastasize.
- *See Principles of Pathologic Review (COL-A)* - Endoscopically removed malignant polyp.
- *See Principles of Surgery (COL-B).*

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**Back to Other Clinical Presentations (Table of Contents)**

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**Note:** All recommendations are category 2A unless otherwise indicated.

**Clinical Trials:** NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.
No one treatment plan is right for every person

No spread to other organs:
- Colon
  - Surgery
  - Surgery ± Chemotherapy
- Rectum
  - Chemotherapy & Radiation Therapy
  - Chemotherapy & Radiation Therapy ± Surgery

Has spread to other organs:
- Chemotherapy ± Surgery
Goals of Surgery

• Relieve bleeding or obstruction
• Remove primary tumor
• Assess regional lymph nodes
• Maintain gastrointestinal function
Types of Surgery

- Endoscopic (colonscopic) removal for very early colon cancers
- Transanal excision
- Hemicolecotmy
  - Right, Left, Transverse, Sigmoid
- Low Anterior Resection (LAR)
- Abdominal Perineal Resection (APR)
- Standard vs. Laparoscopic approaches
- Rectal reconstruction options
Principals of Resection
Laparoscopic Surgery for Colon Cancer

- More but smaller incisions
- No difference in cancer outcomes (open vs. laparoscopic)
- Slightly faster recovery for laparoscopic
Standard versus Laparoscopic Surgery for Colon Cancer
Temporary Ileostomy vs. Permanent Colostomy
Temporary Ileostomy vs. Permanent Colostomy

Indications for a temporary ileostomy or colostomy

- Obstruction
- Contamination
- Perforation
- Complex reconstruction
Temporary Ileostomy vs. Permanent Colostomy

Indications for a permanent colostomy

- Anal sphincter muscle involved by tumor
- Other medical issues
  - Often the safest procedure
  - Quickest recovery for other treatments
Rectal Cancer

Rectal Cancer
Reconstructing the Rectum
Treatment options for Liver Metastasis

- Removal at surgery
- Ablation
  - Heat
  - Cold
  - Chemical
- Systemic chemotherapy
- Chemoembolization
- Hepatic arterial infusion
- Stereotactic radiation therapy
- Radiation microspheres
Post-Operative Care

Consequences of removing part of the colon

• Hospital stay 4-7 days
• Generally takes 4-8 weeks to recover back to work
• Generally bowel function returns near to normal
• Usual diet
• Permanent colostomy is rare
• Sometimes requires a temporary ileostomy for rectal cancer
• Rectal cancer surgery with more bowel function issues
Post-Operative Care

What to watch for:

• Fevers:
  • May indicate abscess or leak
  • Usually within 2 weeks of surgery
• Diarrhea:
  • Related to ileocecal valve
  • Less water absorption
  • Improves with time
• Intestinal obstruction:
  • May occur anytime after surgery
  • Most treated conservatively
  • About 5% may require an operation for adhesions
Future Considerations

Look for future developments in:

- Minimally invasive techniques to treat cancer
- Coloprint
- Molecular staging
- Targeted therapies