

- A**
- Abdominoperineal proctectomy. *See also* Abdominoperineal resection, of rectal cancer  
for benign disease, 170-174
- Abdominoperineal resection, of rectal cancer, 11, 119-135  
abdominal phase of, 119-120, 121-122  
closure of perineum in, 120-121  
colostomy in, 119-120, 129, 131-134  
complications of, 134-135  
hemostasis in, 121, 122, 126  
incision in, 121  
indications for, 119  
laparoscopic, 136-143  
  division of the descending colon in, 138, 140  
  division of the inferior mesenteric vessels in, 138, 140  
  division of the sigmoid colon in, 138, 140  
  exploration of the abdominal cavity in, 136, 138  
  operative technique in, 136-143  
  perineal dissection in, 138, 143  
  pitfalls and danger points in, 136  
  preoperative preparation for, 136  
  rectal mobilization in, 138, 141, 142  
  rectosigmoid colon mobilization in, 138  
  sigmoid colon mobilization in, 138  
  specimen removal in, 138, 143  
lymphovascular dissection in, 121  
in obese patients, 126  
operative strategy in, 119-121  
operative technique in, 121-134  
pelvic floor management in, 120, 128-129, 131  
perineal closure in, 128-129, 130  
perineal dissection in, 122-128  
perineal phase of, 120-121, 122-128  
postoperative care following, 134  
preoperative preparation for, 119  
  presacral dissection in, 121  
  sigmoid colon mobilization in, 121-122
- Abscesses  
abdominal, temporary colostomy closure-related, 194  
anorectal, 246  
  drainage of, 244, 246-248, 249  
débridement of, 14  
drainage of, 14  
horseshoe, 227  
intersphincteric, 246  
intraabdominal, subtotal colectomy-related, 158  
ischiorectal, 230, 245-246, 246  
pelvic, drainage of, 118  
peltrectal, 246  
  supraleator, 246-248  
  surgical treatment of, 244-245  
perianal  
  Crohn's disease-related, 7  
  drainage of, 7, 230-231, 258  
  as fistula cause, 227-229  
pilonidal, 231  
  surgical treatment of, 269-274  
presacral, 86
- Adenocarcinoma  
colorectal cancer-related, 9  
Crohn's disease-related, 7  
rectal, neoadjuvant therapy for, 11
- Adenomas, villous, 8
- Adenomatous polyposis coli (*APC*)  
gene mutations, 6
- Adhesions, intraabdominal, as  
  indication for right hemicolectomy, 42, 45
- Anal canal, maximum voluntary squeeze pressure in, 225
- Anal cancer, squamous cell carcinoma, 236  
  Nigro procedure for, 11
- Anal fissures, 225-226  
causes of, 225, 226  
chronic, 256-258  
  in hemorrhoid patients, 240  
  lateral internal sphincterotomy for, 256-258  
definition of, 225  
intersphincteric abscesses associated with, 246  
medical treatment of, 230  
  in posterior commissure, 236  
  surgical treatment of, 230, 256-258
- Anal glands  
anatomy of, 226-227  
as perianal infection source, 226-227
- Anal stenosis, hemorrhoids associated with, 240
- Anal tone, resting, 225
- Anal verge  
  in rectal cancer surgery, 9  
  in rectal polyp resection, 12
- Anastomoses  
coloanal, 117  
  in colonic diverticulitis surgery, 212-213  
colorectal, omental wrapping of, 16  
  with disparate ends of bowel, 16-17  
distal rectal, 6  
for diverticulitis, 3, 4  
end-to-end  
  with Cheatle slit, 16-17  
  in left colectomy, 53  
  stapled colocolonic functional (Chassins' method), 70-72  
  stapled intraperitoneal, 117  
end-to-end ileocolic stapled, 37, 39, 40  
  two-layer sutured, 33-37, 38  
end-to-end two-layer  
  alternative to rotation method, 62-65, 66  
  rotation method, 61-62, 63  
  sutured, 194  
guidelines for construction of, 15-17  
in Hartmann operation, 207, 209-211  
ileoanal, with ileal reservoir, 159-169  
  division of Waldeyer's fascia in, 160  
  ileal reservoir construction in, 160-161, 163-166  
  ileoanal anastomosis construction in, 160, 166-167, 168  
  ileoanostomy in, 160

- Anastomoses (*cont.*)
- ileostomy closure in, 160
  - loop ileostomy in, 168–168
  - mucosal proctectomy and total colectomy in, 161–163
  - temporary loop ileostomy in, 160
- ileocolonic, 13
- end-to-end, 33–37, 38, 39, 40
  - side-to-side, 42, 47
- ileorectal, 7
- in laparoscopic left
- hemicolectomy, 81, 83, 84–85
- left colonic, 186
- low colorectal
- circular-stapled, 87, 105–112, 115–117
  - double-stapled, 112–115, 116, 117
  - leakage from, 86–87, 117
  - prevention of complications of, 86–87
  - side-to-end (Baker) colorectal, 53, 86–87, 99–105
  - side-to-side ileocolic, 42, 47
  - stapled, 65, 67–70, 71
  - sutured, 87
- primary, contraindications to, 14–15
- side-to-side
- functional end-stapled, 16–17
  - ileocolonic, 42, 47
- Anastomotic leaks
- anastomotic margin carcinoma-related, 16
  - colocolonic, 41
  - ileocolic, 41
  - laparoscopic left hemicolectomy-related, 85
  - laparoscopic right hemicolectomy-related, 49
  - left colectomy-related, 53
  - low anterior colorectal resection-related, 118
  - low colorectal anastomosis-related, 86–87, 117–118
  - peritoneal contamination-related, 13
  - rate of, 15
  - stoma closure-related, 211
  - subtotal colectomy-related, 158
- Anastomotic margin, carcinoma of, 16
- Anastomotic stenosis, 85
- Anococcygeal ligament, electrocautery-based division of, 124, 125
- Anoderm
- elevation of, 240–241, 242
  - excision of, 237–238, 241
  - ulcers of, 236
- Anoderm flaps, sliding, 259, 262–264
- Anoplasty, for anal stenosis, 159–164
- complications of, 264
  - operative strategy in, 259
  - operative technique in, 259–263
  - internal sphincterotomy, 259, 260, 262
  - sliding anoderm flap, 259, 262–264
  - sliding mucosal flap, 259, 260
  - pitfalls and danger points in, 259
  - postoperative care following, 264
  - preoperative preparation for, 259
- Anorectal region, anatomy and function of, 225, 226
- Anorectal ring. *See* Puborectalis muscle
- Anorectal surgery
- concepts in, 225–231
  - delayed healing following, 231
- Antibiotic prophylaxis, in colorectal cancer surgery patients, 11, 13
- Arteriovenous malformations, 42
- Ascending colon, colectomy of, 25
- B**
- Barium enemas, 10
- Basivertebral vein, presacral branch of, 90
- Bladder
- obstruction of, 135
  - retraction of, in presacral dissection, 96
- Bladder dysfunction
- low anterior colorectal resection-related, 117
  - presacral dissection-related, 90
- Bladder retractors, Lloyd-Davies, 96, 105
- Bowel rest, 13
- C**
- Carcinoembryonic antigen (CEA), 10, 20
- Catheters
- closed-suction, 128, 134
  - ureteric, 45, 195
- Cecal cancer, right colectomy for, 25, 26
- Cecopexy, 5
- Cecostomy, 5, 18
- skin-sutured cecostomy, 183–184
  - as surgical legacy technique, 183–185
  - tube cecostomy, 184–185
- Cecum
- impending rupture of, 186
  - mobilization of, in laparoscopic right hemicolectomy, 45, 46
- Cheatele slit, 16–17
- Chemotherapy, for anal squamous cell carcinoma, 11
- Colectomy
- emergency sigmoid, 214–216
  - with end-colostomy, 216
  - with Hartmann's operation, 214, 215–216
- left, 50–73
- anastomosis technique in, 53, 72
  - closure of, 73
  - complications of, 73
  - division of colon and rectum in, 60–61
  - division of mesocolon in, 58, 60
  - division of renocolic ligament in, 53, 55, 56
  - end-to-end anastomosis techniques in, 61–72
  - extent of dissection in, 50, 51–52
  - incision in, 53
  - indications for, 50
  - insertion of wound protector in, 60
  - liberation of descending colon in, 53, 54
  - liberation of sigmoid colon in, 53, 54
  - liberation of splenic flexure in, 50, 53
  - ligation and division of inferior mesenteric artery in, 58, 59
  - ligation and division of mesorectum in, 58
  - no-touch technique in, 53
  - operative strategy in, 50–53
  - operative technique in, 53–73
  - pitfalls and danger points in, 50
  - postoperative care following, 73
  - splenic flexure dissection in, 55, 57–58, 59
- right transverse, 25–41
- complications of, 41
  - indications for, 25
  - no-touch technique in, 25
  - operative strategy in, 25–28
  - operative technique in, 29–37
  - pitfalls and danger points in, 25
  - postoperative care following, 37
  - preoperative preparation for, 25
- subtotal, 150–158
- dissection of right colon and omentum in, 151, 152
  - with end-ileostomy, 8
  - with ileoproctostomy, 156, 157
  - with ileostomy and mucous fistula, 154–156

- ileostomy placement in, 150-151
- with immediate total proctectomy, 156-158, 158
- intraoperative tube decompression in, 150
- with needle-catheter jejunostomy, 156
- prior to abdominoperineal proctectomy, 171
- total
  - ileoanal anastomosis with ileal reservoir following, 159-169
  - indications for, 7, 8
  - in *MMR* gene mutation carriers, 10
- Colic arteries
  - left
    - in low anterior colorectal resection, 87, 88
    - transverse branch of, 88, 96
  - middle
    - in low anterior colorectal resection, 87
    - in right colectomy, 25, 26, 27, 28, 29-30, 31
- Colitis
  - indeterminate, 8, 15
  - ischemic, 5
  - ulcerative
    - abdominoperineal proctectomy for, 170
    - colorectal cancer-associated, 10
    - protocolectomy for, 159-169
    - subtotal colectomy for, 150
    - surgical treatment of, 7-8, 150, 159-169, 170
- Colon. *See also* Left colon; Rectosigmoid colon; Right colon; Sigmoid colon; Transverse colon
  - division of, in left colectomy, 60-61
  - obstruction of, 186-189
  - perforation of, 13, 134
- Colon cancer. *See also* Colorectal cancer
  - laparoscopic right hemicolectomy for, 74
- Colonic diversion, for diverticulitis, 3
- Colonoscopy
  - for colorectal cancer evaluation, 9
  - for gastrointestinal hemorrhage evaluation, 4
  - for ischemic colitis diagnosis, 5
  - total, 10
- Colorectal cancer
  - extent of resection of, 9
  - familial adenomatous polyposis-related, 6
  - hereditary nonpolyposis colorectal cancer (HNPCC) syndrome-related, 6-7
  - polyp-related, 8
  - preoperative evaluation of, 10-11
  - preoperative staging of, 10
  - recurrence of, 20
  - surgical treatment of
    - anastomosis techniques in, 15-17
    - cancer recurrence following, 20
    - interoperative considerations during, 13-17
    - laparotomy *versus* laparoscopy in, 11-12
    - preoperative preparation for, 11
    - prevention of tumor recurrence in, 13
    - primary anastomosis *versus* staged procedures in, 14-15
    - strategies for complex situations in, 13-14
    - surgical margins in, 9, 13
    - with synchronous pathology, 9-10
- Colostomy
  - in abdominoperineal resection, 119-120, 129, 131-134
  - postoperative retraction of, 133
  - end, 213-214
  - sigmoid, 202-205
  - loop, 18
    - proximal diverting, 3
    - sigmoid, 195, 198, 200-202
  - temporary, closure of, 190-194
    - anastomosis of, 194
    - colon defect closure technique in, 191-193
    - complications of, 190, 194
    - fascial dissection in, 190-191
    - operative strategy in, 190
    - operative technique in, 190-194
    - peritoneal dissection in, 191
    - resection of, 194
  - transverse, 186-189, 205-207
    - diverting right, 87
    - with glass-rod modification, 186, 188
    - immediate maturation of, 186, 187-188
    - operative strategy in, 186
    - operative technique in, 186-188
    - prior to laparotomy, 187
- Colotomy, inadvertent, 42
- Constipation, Ripstein operation-related, 222
- Continence. *See also* Incontinence, fecal
  - mechanism of, 225
- Crohn's disease, 226
  - as contraindication to Kock continent ileostomy, 19
  - as extrasphincteric fistula cause, 227
  - in hemorrhoid patients, 236
  - ileocolic, 42
  - recurrent, 42
  - surgical treatment of, 7
    - with abdominoperineal proctectomy, 170
    - with laparoscopic right hemicolectomy, 42, 74
    - with subtotal colectomy, 150
- Cryptoglandular infections, as fistula cause, 227, 230
- Cyclooxygenase-2 (COX-2) inhibitors, 9
- Cysts, pilonidal, surgical treatment of, 269-274
- D**
- Decompression, intestinal, 14
- Denonvillier's fascia, 96, 97, 98, 172
- Descending colon
  - division of, in laparoscopic abdominoperineal resection, 138, 140
  - in low anterior colorectal resection, 87
    - as anastomosis, 87, 99-105
    - mobilization of, 88, 96
  - mobilization of
    - in left colectomy, 53, 54
    - in low anterior colorectal resection, 88, 96
- Diabetes mellitus patients, perianal abscess drainage in, 231
- Digital rectal examination, preoperative, 10
- Distal colon, transection of, 79-80, 81
- Diverticular disease, 3-4
  - colorectal cancer-associated, 9
- Diverticulitis, 3-4
  - with complete intestinal obstruction, 3-4
  - as extrasphincteric fistula cause, 227
  - surgical treatment of, 212-216
    - with emergency sigmoid colectomy, 214-216
    - with laparoscopic right hemicolectomy, 42, 74
    - operative strategy in, 212
    - operative technique in, 212-216
    - with primary resection and anastomosis, 212-213
    - with primary resection with end-colostomy/mucous fistula, 213-214

- Diverticulitis (*cont.*)  
 with stroma construction and closure, 195
- Diverticulosis, 3
- Drainage  
 of anorectal abscess, 246-248, 249  
 of pelvic abscess, 118  
 of perianal abscess, 230-231
- Duodenum, in laparoscopic right hemicolectomy, 45
- E**
- Elderly patients, colorectal cancer surgery in, 10-11
- Electrocautery  
 of anococcygeal ligament, 124, 125  
 for rectal tumor excision, 12
- Electrocoagulation, transanal, 12
- End-colostomy, 213-214  
 indications for, 7  
 as ischemic colitis treatment, 5
- End-ileostomy, 175-179  
 comparison with loop ileostomy, 180  
 complications of, 179  
 indications for, 10, 175  
 operative strategy in, 175  
 operative technique in, 175-179  
 closure of the mesenteric gap in, 176-178  
 fashioning of the ileal mesentery in, 175-176  
 mucocutaneous fixation of ileostomy in, 179  
 selection of ileostomy site, 175  
 pitfalls and danger points in, 175  
 postoperative care following, 179  
 with proctocolectomy, 7  
 with subtotal colectomy, 8  
 with total proctocolectomy, 143-149
- Endocavitary irradiation (papillon technique), 13
- Endoprotheses, 14
- Endoscopic microsurgery, transanal, 12
- Enterotomy, inadvertent, 42
- F**
- Familial adenomatous polyposis (FAP), 6, 150
- Fecal impaction, Thiersch operation-related, 265, 268
- Fecal stream, diversion of, 180-182, 186
- Fistula-in-ano, 230
- Fistulas  
 anal, 230  
 anorectal, 244-245, 248-254  
 extrasphincteric, 227, 229, 253-254  
 intersphincteric, 248-250, 251-252  
 suprasphincteric, 228, 229, 253  
 transsphincteric, 227, 228, 246, 250, 252
- colocutaneous, 194  
 colovesical, 4, 212  
 Crohn's disease-related, 7  
 horseshoe, 244  
 ileocutaneous, 175  
 intersphincteric, 246  
 mucous, 154-156, 205  
 in diverticulitis surgery, 213-214  
 with end-ileostomy, 175  
 freeing of, in abdominoperineal proctectomy, 171  
 as ischemic colitis treatment, 5  
 in presence of peritoneal contamination, 13  
 perianal abscess-related  
 extrasphincteric, 227, 229  
 suprasphincteric, 228, 229  
 transsphincteric, 227, 228  
 surgical treatment of, 14
- Fistulotomy, 230-231, 244-255  
 contraindications to, 244  
 with drainage of anorectal abscess, 244, 245-246  
 operative technique in, 248-254  
 technical hints for, 254
- Flaps  
 omental, 16  
 sliding anoderm, 259, 262-264  
 sliding mucosal, 259, 260
- G**
- Gangrene  
 ischemic colitis-related, 5  
 volvulus-related, 4, 5
- Gastrocolic ligament, division of, 77, 79
- Gastrostomy, Stamm, 183
- Gluteal cleft, infections of. *See* Pilonidal disease
- Goodsall's Rule, 244-245, 254
- H**
- Hartmann operation, 3, 7  
 in emergency sigmoid colectomy, 214, 215-216  
 in laparoscopic stoma construction and closure, 207-211  
 reversal of, 113
- Hartmann's pouch, 5
- Hemicolectomy  
 laparoscopic left, 74-85  
 anastomosis in, 81, 83, 84-85  
 complications of, 85  
 dissection of the splenic flexure in, 76-77, 78, 79  
 exteriorization of the left colon in, 80-81, 82  
 identification of the left ureter in, 76  
 identification of the mesenteric vessels in, 78, 80  
 indications for, 74  
 isolation of the transverse mesentery in, 77-78, 79  
 mobilization of the left colon in, 75  
 operative strategy in, 74  
 operative technique in, 74-83, 84  
 pitfalls and danger points in, 74  
 postoperative care following, 85  
 preoperative preparation for, 74  
 transection of the distal colon in, 79-80, 81  
 transection of the mesenteric vessels in, 78-79  
 transection of the rectosigmoid junction in, 79-80, 81
- laparoscopic right, 42-49  
 conversion to laparotomy, 44  
 extracorporeal resection and anastomosis in, 46-47, 48  
 mobilization of the cecum in, 45, 46  
 mobilization of the hepatic flexure in, 45-46  
 operative strategy in, 42  
 operative technique in, 43-49  
 re-insufflation and inspection of, 47, 49
- left, 50, 51, 52  
 right, 7
- Hemodynamic instability, 15
- Hemorrhage  
 abdominoperineal resection-related, 119, 135  
 hemorrhoidectomy-related, 243  
 hemorrhoid rubber band ligation-related, 234  
 hemorrhoids-related, 230  
 intraluminal, stapled anastomoses-related, 116-117  
 low anterior colorectal resection-related, 86  
 lower gastrointestinal, diverticulosis-related, 4  
 pilonidal disease treatment-related, 273-274  
 presacral, 95-96  
 control of, 90, 96  
 Ripstein operation-related, 217  
 rectal, anal fissure-related, 230

- splenic flexure liberation-related, 50, 53
- Hemorrhoidectomy, 235–243  
 complications of, 243  
 contraindications to, 235  
 indications for, 230, 235  
 operative strategy in, 235–236  
 operative technique in, 236–243  
 closed hemorrhoidectomy, 236–240  
 local anesthesia for, 240–243  
 radical open hemorrhoidectomy, 240–243  
 pitfalls and danger points in, 235  
 postoperative care following, 243  
 preoperative preparation for, 235
- Hemorrhoids  
 external, 225  
 symptoms of, 230  
 internal, 225  
 prolapse of, 230  
 rubber band ligation of, 230, 232–234  
 symptoms of, 230
- Hemostasis  
 during hemorrhoidectomy, 235–236  
 pelvic, 96, 122  
 perineal, 121
- Hepatic flexure, mobilization of, 45–46, 47
- Hepatic flexure cancer, right  
 colectomy for, 25, 27–28
- Hereditary nonpolyposis colorectal cancer (HNPCC) syndrome, 6–7
- Hernia  
 incisional, 211  
 parastomal, 211  
 port-site, 49, 85
- Hidradenitis suppurativa, 226, 244
- Hospital stay, of colorectal surgery patients, 19
- H-pouch, 17
- Hypogastric arteries, in presacral venous hemorrhage, 89
- Hypogastric nerves  
 in presacral space dissection, 90, 92, 95  
 transection of, 170
- I**
- Ileal pouch, Crohn's disease  
 recurrence in, 7
- Ileal pouch/anal anastomosis, 8  
 drainage of, 16  
 indications for, 10  
 pouchitis of, 20–21
- Ileal reservoirs, 160–161, 163–166
- Ileoanostomy, 160
- Ileocecal region cancer, colectomy  
 of, 25
- Ileocolic vessels  
 division of, 30–31, 32  
 high ligation of, 25, 30–31
- Ileoproctostomy, 156, 157
- Ileostomy  
 with abdominoperineal proctectomy, 173  
 closure of, 160  
 end. *See* End-ileostomy  
 improper construction of, 150  
 Kock continent, 7–8, 18–19  
 loop, 3, 18, 180–182, 195–198, 199  
 choosing terminal ileum loop in, 197, 198  
 exposure of ileum in, 197–198, 199  
 in low anterior colorectal resection, 87  
 temporary, 160, 167–168  
 with mucous fistula, in subtotal colectomy, 154–156  
 prolapse of, 179  
 stricture of, 179  
 with transverse colostomy, 186
- Ileum  
 division of, 33, 34  
 exposure of, 197–198, 199
- Ileus, postoperative, 85
- Iliac artery, right common, in  
 colectomy, 33
- Iliac veins, left, in presacral dissection, 90
- Incontinence, fecal  
 causes of, 225  
 postoperative, 20, 117, 222, 259  
 as stoma construction and closure indication, 195
- Infections. *See also* Sepsis; Wound infections  
 hemorrhoidectomy-related, 243  
 pilonidal disease treatment-related, 273
- Inferior mesenteric artery, ligation and division of  
 in laparoscopic abdominoperineal resection, 138, 140  
 in left colectomy, 50, 58, 59  
 in low anterior colorectal resection, 87, 92, 94
- Inferior mesenteric veins, ligation and division of, 138, 140
- Inflammatory bowel disease. *See also* Colitis, ulcerative; Crohn's disease  
 surgical treatment of, 7–8  
 with abdominoperineal proctectomy, 170
- with emergency operative procedures, 150  
 with end-ileostomy, 175  
 with laparoscopic right hemicolectomy, 42, 44, 47  
 with subtotal colectomy, 150–158
- Infliximab, as Crohn's disease-related fistula treatment, 7
- Intestinal pouch reservoirs, 17
- Intestines. *See also* Large intestine; Small intestine  
 obstruction of  
 abdominoperineal resection-related, 120, 134–135  
 subtotal colectomy-related, 158
- Ischemia, colostomy-related, 119
- Ischiorectal fossa  
 abscess of, 230  
 infections of, 246, 247
- Ischiorectal space, infections of, 246, 248, 249
- J**
- Jejunostomy, needle-catheter, 158
- J-loop ileal reservoir, 160–161
- J-pouch, 17
- L**
- Laparoscopic procedures  
 abdominoperineal resection, 136–143  
 laparotomy *versus*, 11–12  
 left hemicolectomy, 74–85  
 right hemicolectomy, 42–49  
 stoma construction and closure, 195–211  
 total proctocolectomy with end ileostomy, 143–149
- Laparotomy, open, 11–12
- Large intestine. *See also* Ascending colon; Cecum; Sigmoid colon; Splenic flexure; Transverse colon  
 obstruction of, surgical treatment of, 14
- Large intestine surgery, concepts of, 3–24  
 benign conditions, 3–9  
 intestinal pouch reservoirs, 17  
 intestinal stomas, 17–19  
 malignant conditions, 9–17  
 postoperative care, 19–20
- Laser fulguration, of rectal cancer, 12
- Latex condoms, as intraluminal tube, 16
- Lavage, on-table intestinal, 14
- Left colon. *See also* Colectomy, left dissection of, in subtotal colectomy, 151, 153

- Left colon (*cont.*)  
 exteriorization of, 80–81, 82  
 mobilization of, 209  
 in diverticulitis surgery, 212, 213, 215  
 in laparoscopic left hemicolectomy, 75, 76
- Leukemia, in hemorrhoid patients, 236
- Levator diaphragm  
 in abdominoperineal resection, 124, 125  
 anatomy of, 226  
 in low colorectal anastomoses, 105, 107
- Lienocolic ligament, 53  
 localization and division of, 55, 58
- Ligation banding, of hemorrhoids, 230
- Local anesthesia  
 in hemorrhoidectomy, 240–243  
 for pilonidal disease operations, 269, 270, 271
- Low anterior resection. *See* Rectal cancer, low anterior resection of
- Lymphovascular dissection  
 in abdominoperineal resection, 121  
 in low anterior colorectal resection, 87, 88, 92, 93–95, 94–95
- M**
- Malnutrition, in surgical patients, 15
- Marginal artery  
 loop colostomy-related injury to, 195  
 in low anterior colorectal resection, 87, 88  
 visualization in ileal mesentery, 176
- Marsupialization  
 of fistulotomy-related surgical wounds, 254  
 of pilonidal disease, 269, 270–271
- Megacolon, toxic  
 resection of, 7, 150, 151, 152  
 ulcerative colitis-related, 7
- Mesentery  
 ileal, division of, 31  
 transverse, isolation of, 77–78
- Mesh  
 use in Ripstein operation, 219, 220–221  
 use in Thiersch operation, 265–266, 267
- Mesocolon, division of  
 in diverticulitis surgery, 213  
 in left colectomy, 58, 60  
 in subtotal colectomy, 151, 154
- Mesorectum, ligation and division of, 58
- Metastases  
 port-site, 12  
 of rectosigmoid cancer, 96
- Minimally-invasive surgery, 12
- Mismatch repair (*MMR*) gene mutations, 6–7  
 carriers of, total abdominal colectomy in, 10
- Mucosectomy, 159–160
- N**
- Nasogastric intubation,  
 postoperative, 19
- Nigro procedure, 11
- No-touch techniques, 13, 25, 53
- O**
- Obese patients  
 colorectal cancer surgery complications in, 11  
 end-ileostomy in, 176  
 laparoscopic right hemicolectomy in, 44, 46  
 “Omega loop,” 4
- Omental flaps, 16
- Omentum  
 as colorectal anastomosis wrapping, 16  
 dissection of, 29  
 in toxic megacolon operations, 151, 152  
 in transverse colostomy, 207  
 in low anterior colorectal resection, 86  
 separation from transverse colon, 77, 78  
 in transverse colostomy, 187
- Ovaries, rectosigmoid cancer metastases to, 96
- P**
- Pain  
 hemorrhoid rubber band ligation-related, 234  
 perineal, 121, 268
- Pancreaticocolic ligament, in left colectomy, 53, 55, 58, 59
- Pandiverticulosis, 3
- Papillon technique (endocavitary irradiation), 13
- Pelvic floor, in abdominoperineal resection, 120, 128–129, 131
- Perianal infections, 226–227
- Perianastomotic deadspace, 16
- Perineal muscle, superficial transverse, 126, 127
- Perineal sinus, persistent, 135, 170
- Perineum, in abdominoperineal resection  
 closure of, 120–121, 128–129, 130  
 dissection of, 121, 122, 123  
 in laparoscopic resection, 138, 143
- Peritoneal diaphragm, in abdominoperineal resection, 129
- Peritoneum  
 contamination of  
 generalized, 13, 14–15  
 localized, 13  
 pelvic  
 inadequate mobilization of, 119  
 in Ripstein operation, 218  
 peritoneal, closure of, 16  
 right paracolic, division of, 31–33
- Peritonitis, generalized, 14–15
- Pilonidal disease, 244  
 definition of, 231  
 surgical treatment of, 231, 269–274  
 complications of, 273–274  
 indications for, 269  
 marsupialization in, 269, 270–271  
 operative strategy in, 269  
 operative technique in, 269  
 pilonidal excision with primary suture in, 271–272, 273  
 postoperative care following, 273  
 sinus pit excision in, 269, 272–273
- Polypectomy, 8
- Polyps, 8–9  
 adenomatous, 8  
 benign rectal, resection of, 12  
 colonic, endoscopically unresectable, 74  
 colorectal cancer-associated, 9–10  
 endoscopic removal of, 8–9  
 familial adenomatous polyposis (FAP), 6, 150  
 hyperplastic, 8
- Postoperative care, 19. *See also under specific surgical procedures*
- Pouchitis, 20–21
- Presacral nerves, rectal cancer invasion of, 121
- Presacral space  
 dissection of, 87, 89–90  
 in abdominoperineal resection, 121

- in female patients, 96
    - as hemorrhage cause, 89-90
    - hypogastric nerve preservation
      - in, 90, 92, 95
    - in Ripstein operation, 218-219
    - technique of, 90, 95-96, 97-98, 98
  - hematoma of, 86
  - postoperative closed-suction drainage of, 15-16
  - Presacral veins, dissection-related tears to, 89, 90, 95-96
  - Proctectomy
    - abdominoperineal, for benign disease, 170-174
    - completion, 7
    - mucosal, 159-169
    - total, 120
      - fatalities during, 89
      - with subtotal colectomy, 156, 158
  - Proctocolectomy
    - with ileal pouch/stapled anastomosis, 6
    - with ileoanal anastomosis and ileal reservoir, 159-169
    - with ileostomy, 6
    - total, with end-ileostomy, 143-149
    - as urinary tract obstruction cause, 135
  - Proctosigmoidoscopy, preoperative, 10
  - Prostatectomy, 135
  - Prostate gland
    - in abdominoperineal resection, 126, 128
    - rectal cancer invasion of, 121
  - Puborectalis muscle
    - absence of, 244
    - anatomy of, 225, 226
    - electrocautery-based transection of, 125-126
    - in fistulotomy, 245
    - palpation of, 225
    - post-fistulotomy function of, 245
- R**
- Radiation therapy
    - for anal squamous cell carcinoma, 11
    - effect on surgical wound healing, 16
    - for rectal cancer
      - as adjuvant therapy, 11, 12, 16
      - endocavitary (papillon technique), 13
  - Rectal ampulla, in side-to-end (Baker) colorectal anastomosis, 86-87
  - Rectal cancer
    - adenocarcinoma, neoadjuvant therapy for, 11
    - determination of resectability of, 121
    - familial adenomatous polyposis-related, 6
    - low
      - laparoscopic abdominoperineal resection of, 136-143
      - total proctocolectomy/end ileostomy of, 143-149
    - low anterior resection of, 86-118
    - anastomotic techniques in, 86-87, 99-117
    - circular stapled low colorectal anastomosis in, 105-112, 115-117
    - diverting right transverse loop colostomy in, 87
    - doubled-stapled technique in, 112-115, 116
    - incision in, 91
    - loop ileostomy in, 87
    - lymphovascular dissection in, 87, 88, 92, 94-95
    - operative strategy in, 86-91
    - operative technique in, 91-117
    - pelvic hemostasis in, 96
    - pitfalls and danger points in, 86, 115-117
    - presacral dissection in, 87, 89-90, 95-96, 97-98, 98
    - preservation of hypogastric nerves in, 90
    - prevention of anastomotic complications of, 86-87
    - prevention of presacral hemorrhage in, 87, 89-90
    - proximal colon mobilization in, 96
    - rectal stump irrigation in, 99
    - rectal stump preparation in, 99
    - sigmoid colon mobilization in, 91, 92, 93
    - small bowel exploration and evisceration in, 91
    - ureteral dissection in, 90-91
  - preoperative evaluation of, 10
  - surgical treatment of
    - abdominoperineal resection, 119-135
    - alternatives to formal resection, 12-13
    - low anterior resection, 86-118
    - simple transanal excision, 12
    - surgical margins in, 9, 12
- Rectal prolapse, 5-6
  - complete (proctidentia), 5
  - surgical treatment of, 5-6
    - Ripstein operation, 6, 217-222
- Rectal stump
  - irrigation of, 99
  - in laparoscopic stoma construction and closure, 209
  - in left colectomy, 50
  - in low anterior colorectal resection, 117
  - in low colorectal anastomosis, 105, 107
  - preparation of, 99
- Rectopexy, 6. *See also* Ripstein operation, for rectal prolapse
- Rectosigmoid area, in ischemic colitis, 5
- Rectosigmoid colon
  - mobilization of, 138
  - resection of (Hartmann operation), 3, 113, 214, 215-216
- Rectosigmoidectomy, 6
- Rectosigmoid junction, transection of, 79-80, 81
- Rectourethralis muscle, transection of, 126, 127
- Rectouterine pouch, in low anterior colorectal dissection, 91
- Rectovesical pouch, in low anterior colorectal dissection, 91, 93, 96, 98
- Rectum
  - compliance of, 225
  - dissection of, in proctocolectomy, 160
  - division of, in left colectomy, 60-61
  - foreign body-related perforation of, 227
  - leukemic infiltrates in, 236
  - mobilization of, 138, 141-142
  - rupture of, 119
- Renocolic ligament
  - division of
    - as hemorrhage cause, 50, 53
    - in left colectomy, 50, 53, 55, 56
  - identification of, 53, 55, 56
- Retrorenal dissection, inadvertent, 42
- Right colon
  - Crohn's disease of, 7
  - dissection of, in subtotal colectomy, 151
  - ischemic colitis of, 5
- Ripstein operation, for rectal prolapse, 6, 217-222
  - mesh use in, 219, 220-221
- Rubber band ligation, of internal hemorrhoids, 230, 232-234

- S**
- Sacral arteries, middle, in low anterior colorectal resection, 95
- Sacrum, rectal cancer invasion of, 121
- Salpingo-oophorectomy, bilateral, 96
- Segmental colon resection, indications for, 7, 8
- Sepsis
- abdominoperineal resection-related, 135
  - colonic anastomosis-related, 41
  - in colorectal cancer surgery patients, 13
  - hemorrhoid rubber band ligation-related, 234
  - ischemic colitis-related, 5
  - pelvic
    - abdominoperineal proctectomy-related, 170
    - low anterior colorectal resection-related, 117-118
    - low colorectal anastomosis-related, 117-118
    - rectal cancer recurrence-related, 9
  - perineal, Crohn's disease-related, 7
  - peristomal, 185, 188
- Sexual dysfunction
- abdominoperineal resection-related, 135
  - low anterior colorectal resection-related, 118
  - low colorectal anastomosis-related, 118
- Shock, septic, 14-15
- Sigmoid colon
- diverticulosis of, 3
  - division of
    - in end sigmoid colostomy, 203-205
    - in laparoscopic
      - abdominoperineal resection, 138, 140
  - mobilization of
    - in abdominoperineal resection, 121-122
    - in diverticulitis surgery, 212, 213
    - in end sigmoid colostomy, 203
    - in laparoscopic
      - abdominoperineal resection, 138
    - in left colectomy, 53, 54
    - in low anterior colorectal resection, 91, 93
  - proximal, exteriorization of, 205
  - volvulus of, 5
- Skin tags, hemorrhoidectomy-related, 243
- Small intestine
- evisceration of, in low anterior colorectal dissection, 91
  - obstruction of, laparoscopic right hemicolectomy-related, 49
- Sphincterotomy, internal, 259, 260, 262
- lateral, 256-258
- Sphincter/sphincter muscles
- external
    - anatomy and function of, 225, 226
    - preservation of, 170
  - internal
    - anatomy and function of, 225, 226
    - in hemorrhoidectomy, 238, 239, 241, 242
    - postoperative function of, 19-20
- Splenic flexure
- dissection of
    - in laparoscopic left hemicolectomy, 76-77, 78, 79
    - in left colectomy, 55, 57-58, 59
  - exposure of, in subtotal colectomy, 150
  - in ischemic colitis, 5
  - in low anterior colorectal resection, 87, 96
  - mobilization of
    - in left colectomy, 50, 53
    - in total proctocolectomy with end-ileostomy, 144
  - rupture of, toxic megacolon-related, 150
- S-pouch, 17
- Squamous cell carcinoma, anal, 236
- Nigro procedure for, 11
- Staplers, proper use of, 116
- Stents, metallic, 14
- Steroids, effect on surgical wound healing, 16
- Stomas, intestinal, 17-19
- laparoscopic construction and closure of, 195-211
  - complications of, 211
  - end sigmoid colostomy/mucous fistula in, 202-205
  - Hartmann operation in, 207-211
  - indications for, 195
  - loop ileostomy in, 195-198, 199
  - loop sigmoid colostomy in, 198, 200-202
  - operative strategy in, 195
  - operative techniques in, 195-211
  - postoperative care following, 211
- transverse colostomy in, 205-207
- permanent, 7, 17
  - site selection for, 17, 18
    - in obese patients, 11
  - temporary, 17
  - timing of closure of, 18
- Stool-bulking agents, 230
- Surgical legacy technique, 183-185
- T**
- Thiersch operation, for rectal prolapse, 265-268
- complications of, 265, 268
  - indications for, 265
  - operative strategy in, 265
  - operative techniques in, 265-268
  - pitfalls and danger points in, 265
  - postoperative care following, 268
  - preoperative preparation for, 265
- Thumbtacks, for presacral hemorrhage control, 90, 96
- Transverse colon. *See also* Colectomy, transverse
- distal, surgical treatment of, 50, 51, 52
  - division of, 33, 34
  - identification of, 187
  - right, colectomy of, 25, 27-28
- U**
- Ulcers
- anal, anoplasty-related, 264
  - anodermal, 236
- Ultrasonography, endorectal, 10
- Ureters
- abdominoperineal resection-related trauma to, 119
  - identification of, 90-91, 203
  - left, in laparoscopic left hemicolectomy, 76
  - in low anterior colorectal resection, 90-91
  - rectal cancer invasion of, 121
  - in right colectomy, 33
- Urethra, abdominoperineal resection-related trauma to, 119, 121, 125
- Urinary retention
- anoplasty-related, 264
  - hemorrhoidectomy-related, 237, 241, 243
- Urogenital function, postoperative, 20
- Uterus, retraction of, in presacral dissection, 96
- V**
- Vagina
- in abdominoperineal resection, 126, 134

vaginal wall fabrication in,  
128-129  
in perineal dissection, 122,  
123  
Virtual reality imaging, 10  
Volvulus, 4-5  
cecal, 5, 42  
colonic, 4-5

laparoscopic right hemicolectomy  
for, 42, 74

**W**

Waldeyer's fascia, 90, 98, 105, 124,  
160, 172

Well's procedure, 6

Wound infections

laparoscopic left hemicolectomy-  
related, 85  
laparoscopic right hemicolectomy-  
related, 49  
right colectomy-related, 41  
Thiersch operation-related, 268  
Wound Protector, 60  
W-pouch, 17