

TEXTBOOK OF  
**Gastroenterology**

VOLUME ONE

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# TEXTBOOK OF Gastroenterology

VOLUME ONE

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The authors and publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new or infrequently employed drug.

the common and troublesome symptoms generally attributed to motor dysfunction of the bowel.

## ANATOMY OF MOTOR STRUCTURES

### Gross Anatomy

#### COMPONENT PARTS OF THE LARGE INTESTINE

The large intestine is often called by the name of one of its component parts, the colon. The large intestine is divided into five parts: the appendix, the cecum, the colon, the rectum, and the anal canal. These parts are anatomically and physiologically distinct. They should be kept in mind as separate structures.

The colon extends from the ileocolic junction to the rectosigmoid junction. It is divided into four regions: the ascending, transverse, descending, and sigmoid regions. Although the distinctions among these regions are somewhat arbitrary, this division is useful both physiologically and anatomically. The parts of the large intestine are partly delineated by points or loci. These points are the ileocolic junction, the hepatic flexure, the splenic flexure, and the rectosigmoid junction. All these parts and loci are shown in Figure 10-1.

#### DESCRIPTION OF THE COMPONENT PARTS OF THE LARGE INTESTINE

The cecum is a blind pouch beyond the ileocolic junction. The cecum and the appendix have a generous mesentery and are, therefore, quite mobile.

The ascending colon, extending from the ileocolic junction to the hepatic flexure, has no mesentery; the investing peritoneum holds it against the adjacent kidney and dorsal muscles. The transverse colon, extending from the hepatic flexure to the splenic flexure has a broad mesentery so that it generally loops below the interiliac line. The descending colon, extending from the splenic flexure to the upper aperture of the pelvis, lacks a mesentery so that the peritoneum holds it against the kidney and dorsal muscles. The sigmoid colon, extending from the pelvic aperture to the rectosigmoid junction, has a broad mesentery so that it often forms a loop that protrudes into the abdomen. The rectum extends from the rectosigmoid junction to the anal canal. About 6 to 8 cm above the anal canal, the peritoneum is reflected from the rectum to adjacent structures so that the distal rectum is extraperitoneal. The anal canal is surrounded by the striated musculature of the pelvic floor, including the external anal sphincter.

#### Structure of the Wall of the Large Intestine

The large intestinal wall, like the rest of the gut, has three major layers: the mucosa, the submucosa, and the muscularis propria. Each major layer has subdivisions.

