

Bowel Diversion Surgeries: Ileostomy, Colostomy, Ileoanal Reservoir, and Continent Ileostomy

National Digestive Diseases Information Clearinghouse

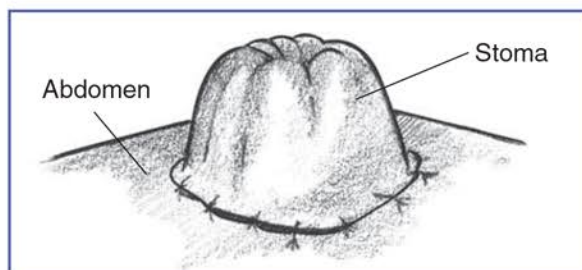
What is bowel diversion surgery?

Bowel diversion surgery allows stool to safely leave the body when—because of disease or injury—the large intestine is removed or needs time to heal. Bowel is a general term for any part of the small or large intestine.

Some bowel diversion surgeries—those called ostomy surgery—divert the bowel to an opening in the abdomen where a stoma is created. A surgeon forms a stoma by rolling the bowel's end back on itself, like a shirt cuff, and stitching it to the abdominal wall. An ostomy pouch is attached to the stoma and worn outside the body to collect stool.

Other bowel diversion surgeries reconfigure the intestines after damaged portions are removed. For example, after removing the colon, a surgeon can create a colonlike pouch out of the last part of the small intestine, avoiding the need for an ostomy pouch.

Cancer, trauma, inflammatory bowel disease (IBD), bowel obstruction, and diverticulitis are all possible reasons for bowel diversion surgery.



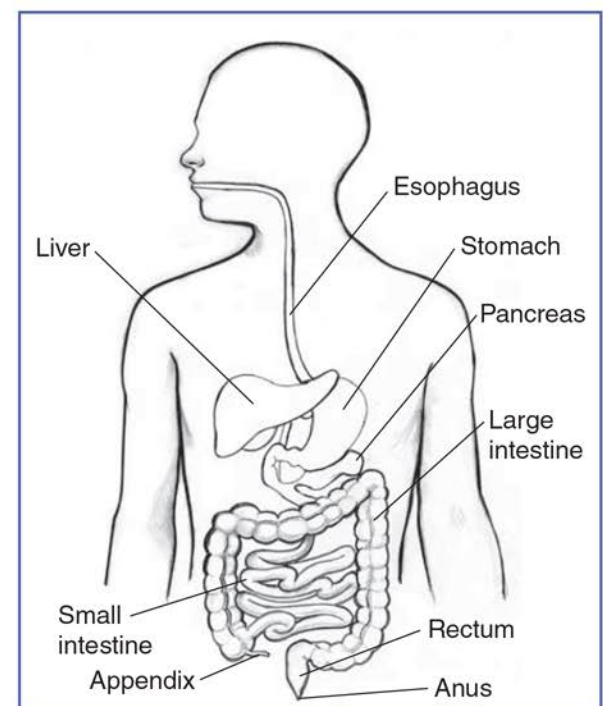
A surgeon forms a stoma by rolling the bowel's end back on itself, like a shirt cuff, and stitching it to the abdominal wall.

Which parts of the gastrointestinal tract are affected by bowel diversion surgeries?

Bowel diversion surgeries affect the large intestine and often the small intestine.

Small Intestine

The small intestine runs from the stomach to the large intestine and has three main sections: the duodenum, which is the first 10 inches; the jejunum, which is the middle 8 feet; and the ileum, which is the final 12 feet. Bowel diversion surgeries only affect the ileum.



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Large Intestine

The large intestine is about 5 feet long and runs from the small intestine to the anus. The colon and rectum are the two main sections of the large intestine. Semisolid digestive waste enters the colon from the small intestine. Gradually, the colon absorbs moisture and forms stool as digestive waste moves toward the rectum. The rectum is about 6 inches long and is located right before the anus. The rectum stores stool, which leaves the body through the anus. The rectum and anus control bowel movements.

What are the different types of bowel diversion surgery?

Several surgical options exist for bowel diversion.

- **Ileostomy** diverts the ileum to a stoma. Semisolid waste flows out of the stoma and collects in an ostomy pouch, which must be emptied several times a day. An ileostomy bypasses the colon, rectum, and anus and has the fewest complications.
- **Colostomy** is similar to an ileostomy, but the colon—not the ileum—is diverted to a stoma. As with an ileostomy, stool collects in an ostomy pouch.
- **Ileoanal reservoir surgery** is an option when the large intestine is removed but the anus remains intact and disease-free. The surgeon creates a colonlike pouch, called an ileoanal reservoir, from the last several inches of the ileum. The ileoanal reservoir is also called a pelvic pouch or J-pouch. Stool collects in the ileoanal reservoir and then exits the body through the anus during a bowel movement. People who have undergone ileoanal reservoir surgery initially

have about six to 10 bowel movements a day. Two or more surgeries are usually required, including a temporary ileostomy, and an adjustment period lasting several months is needed for the newly formed ileoanal reservoir to stretch and adjust to its new function. After the adjustment period, bowel movements decrease to as few as 4 to 6 a day.

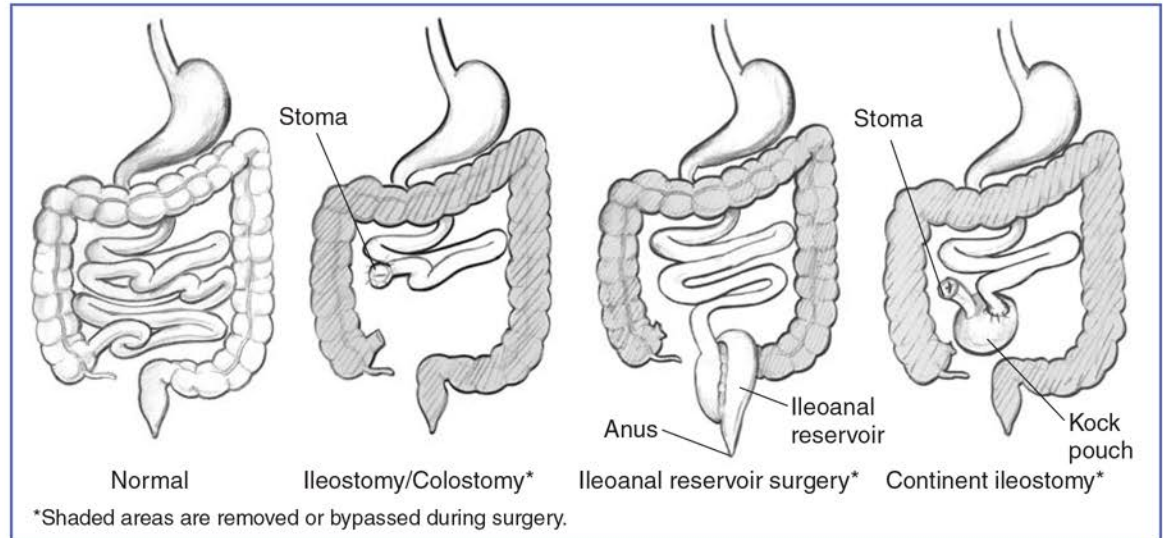
- **Continent ileostomy** is an option for people who are not good candidates for ileoanal reservoir surgery because of damage to the rectum or anus but do not want to wear an ostomy pouch. As with ileoanal reservoir surgery, the large intestine is removed and a colonlike pouch, called a Kock pouch, is made from the end of the ileum. The surgeon connects the Kock pouch to a stoma. A Kock pouch must be drained each day by inserting a tube through the stoma. An ostomy pouch is not needed and the stoma is covered by a patch when it is not in use.

Some people only need a temporary bowel diversion; others need permanent bowel diversion.

Which bowel diversion surgery is appropriate?

The type, degree, and location of bowel damage, and personal preference, are all factors in determining which surgery is most appropriate. For example, people whose disease affects the ileum are poor candidates for ileoanal reservoir surgery or continent ileostomy because of the increased risk of disease recurrence and the need for pouch removal.

Discussing treatment options with a doctor and seeking the advice of an ostomy nurse—a specialist who cares for people with bowel diversions—are highly recommended.



Bowel diversion surgeries.

Concerns Related to Bowel Diversion

Although bowel diversion surgery can bring great relief, many people fear the practical, social, and psychological issues related to bowel diversion. An ostomy nurse is trained to help patients deal with these issues both before and after surgery. People living with an ostomy or who need bowel diversion surgery may also find useful advice and information through local or online support groups.

Points to Remember

- Bowel diversion surgery allows stool to safely leave the body when—because of disease or injury—the large intestine is removed or needs time to heal.
- Bowel is a general term for any portion of the small or large intestine.
- The type, degree, and location of bowel damage, and personal preference, are all factors in determining which bowel diversion surgery is most appropriate.

- An ostomy nurse can help patients deal with the practical, social, and psychological issues related to bowel diversion.

Hope through Research

The National Institute of Diabetes and Digestive and Kidney Diseases conducts and supports basic and clinical research into many digestive disorders, including inflammatory bowel disease and diverticular disease.

Participants in clinical trials can play a more active role in their own health care, gain access to new research treatments before they are widely available, and help others by contributing to medical research. For information about current studies, visit www.ClinicalTrials.gov.

For More Information

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You may also find additional information about this topic by visiting MedlinePlus at www.medlineplus.gov.

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Publications produced by the Clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This publication was reviewed by Victor W. Fazio, M.D., chairman, Department of Colorectal Surgery, Cleveland Clinic Foundation, and Linda K. Aukett, advocacy chair, United Ostomy Associations of America, Inc.

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U.S. DEPARTMENT OF HEALTH
AND HUMAN SERVICES
National Institutes of Health

NIH Publication No. 09-4641
February 2009