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Fistulas

- [Definition](#)
- [Causes of fistulas](#)
- [Management](#)

Fistulas (fistulae) are abnormal connections between two epithelial surfaces. Epithelial surfaces are present in hollow structures (such as blood vessels and organs) and comprise the skin surface. In the [gastrointestinal tract](#) fistulas occur as connections from the intestines to other adjacent organs, other sections of the intestine or to the external [skin](#) surface. Fistulae often develop secondary to trauma, infection, surgical processes or from some underlying inflammatory disease process. Fistulas can cause leakage of pus and gastrointestinal contents to the outside of the body or to the connected organs through small sinuses. This can lead to infections and other complications. Fistulae often require surgical treatment in combination with antibiotic therapy. If you are generally healthy, they tend to resolve well following treatment.

Definition

Fistulas are defined as abnormal connections between two epithelial surfaces. Fistulas (or fistulae) may occur at various sites within the [gastrointestinal tract](#) connecting the intestines to other parts of the intestines, organs or skin surfaces. In some cases fistulae can resolve spontaneously on their own but if there is chronic inflammation, obstruction or malignant (cancerous) cells this is not possible.

There are many different types of fistulae that can develop within the gastrointestinal tract some of which are outlined below:

Enterocutaneous fistulas- These are abnormal connection between sections of the small intestine (duodenum, jejunum or ileum) and the skin surface. Enterocutaneous *fistulas* can be identified by areas of leakage of gastrointestinal contents through the skin.

Entero-enteral fistulas- These fistulas form between two different segments of the intestines. Symptoms are

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dependent on the segment of bowel involved. In some patients these fistulae do not cause symptoms but they can lead to [diarrhoea](#), malabsorption or [dehydration](#). Gastrocolic fistulas (between the stomach and colon) and gastrojejunocolic fistulas (between the stomach, second segment of the small intestine, and colon) are other examples of abnormal connections between the gastrointestinal organs themselves.

Enterovesical fistulas (also known as vesicoenteric and intestinovesical fistulas)- These are abnormal connections between the bowel and the [bladder](#). The bladder is the organ in the pelvis that stores urine. The colon (large intestine), rectum (final section of the gastrointestinal tract), ileum (third segment of the small intestine) and appendix (blind ending sac extending off the large intestine) can all potentially form fistulae to the bladder. The colon is most commonly involved producing what is called a colovesical fistula. These are more common in male patients as they do not have a [uterus](#) separating the two offending organs. Enterovesical fistulae cause symptoms of pain, [dysuria](#) (discomfort urinating), [incontinence](#) (involuntary leakage of urine) and can cause the urine to become smelly or infected. If you get frequent [urinary tract infections \(UTI\)](#) you may suffer from this disorder so it is worth seeing your doctor. To diagnose this condition your doctor will require a urine sample looking for blood and infection, and may perform investigations such as [CT scans](#), [ultrasounds](#) and contrast studies of the bowel and urinary tract in order to locate the abnormal passageway.

Anal fistulas (also known as fistula-in-ano)- These are hollow tracts connecting the anal canal with the skin surrounding the anus (back passage). Anal fistulas often develop from anal [abscesses](#) that rupture and expel their products through a channel that opens on the skin. [Anorectal abscesses](#) are more common in males, particularly homosexual men who practice anoreceptive intercourse. Anal fistulas are therefore also more common in men. Patients with anal fistulae may present with severe perineal [pain](#), smelly drainage, recurrent abscesses and [fever](#). Your doctor will carefully examine the perineal area (between the genitalia and the anus) to find any areas that are draining. They will also need to inset a gloved finger into the rectum to see if they can feel a cord or abnormal tissue. Fistulae are also divided based on their shape and structure into the following categories:

- Blind- Connecting two structures but with only one end open.
- Complete- Having both external and internal openings.
- Horseshoe- Connecting the anus to the surface of the skin after going around the rectum.
- Incomplete- A sinus extending from the skin that is closed inside and not connected to any internal structures.

Causes of fistulas

Fistulae can be divided into congenital (present from birth) and acquired types. The former is rare and is often associated with other congenital abnormalities such as an anus that is not completely patent. Fistulae may also develop from a number of other conditions:

- Trauma- A large portion of enteroenteric and enterocutaneous fistulas develop following abdominal surgery. Surgery on the [prostate](#) and other surgeries within the area can cause damage to the rectum and cause it to form connections with the bladder or urethra (tube from the bladder that expels urine). [Radiation](#) treatment of pelvic cancers can also damage surrounding bowel and predispose to rupture and subsequent abscess formation. In addition, penetrating injuries such as stab wounds or gunshot wounds, can lead to fistula formation.
- Inflammation- Inflammatory bowel diseases such as [Crohn's disease](#) and [ulcerative colitis](#) are leading causes of anorectal, enteroenteric and enterocutaneous fistulas. A significant percentage of patients with Crohn's disease develop fistulae between the ileum (the terminal segment of the small intestine often severely affected in Crohn's) and bladder. [Diverticular disease](#) and infectious disease such as [tuberculosis](#), [syphilis](#) and [chlamydia](#) may also lead to fistula formation, particularly in the anal region.



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How many times a week do you exercise?

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5-6 times

3-4 times

1-2 times

None

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- Neoplasia- [Colorectal cancer](#) is perhaps the most common malignancy associated with enterovesical fistulae. This occurs because the cancer spreads through the bowel wall to adhere and invade the adjacent bladder. Cancers of the [ovary](#), [prostate](#), [cervix](#) and [bladder](#) are also rarely associated with fistula formation.

Management of fistulas

Treatment depends largely on the underlying cause and extent of the fistula. In most cases you will receive antibiotic therapy which in some cases will be sufficient to stop the fistula draining and lead to healing without further intervention. Sometimes your doctor will not allow you to eat for sometime and provide you with the required nutrients through a drip in your arm.. This gives the affected bowel some time to rest and heal itself and will also replace any fluids that may be lost from the body via the fistula. If you have a specific underlying condition such as Crohn's disease, your doctor will also aim to treat the actual disease itself which if well managed will lead to healing of the fistula and prevent recurrence. This often involves extra medications such as steroids that are targeted at the disorder.

If your fistula is connected to the skin you will need to use creams and other treatments to protect the skin from becoming damaged and infected. Often the above mechanisms are not enough to fully treat the fistula and surgery is needed. An operation will be performed to open the fistula and completely drain it. Sometimes a cord (called a seton) will be inserted into the tract to make sure it drains or the surgeon will create a flap of tissue to close over the internal defect in the bowel wall so bowel contents can't enter. Surgery may be an open or laparoscopic (key-hole) procedure. In most cases the surgery is successful but like all operations it does have some risks such as incontinence, recurrence and infection. If the underlying disorder is also treated the risk of recurrence will be much lower. You should discuss any other concerns you have regarding the procedure with your doctor or surgeon.

Reference

1. Basler J, Kamerer A. Colovesical fistula. eMedicine, Web MD, 2006. Available at URL: <http://www.emedicine.com/med/topic2867>.
2. Gearhart S, Bulkley G. 'Common diseases of the colon and anorectum and mesenteric vascular insufficiency' in Kasper et al. Harrison's Principle of Internal Medicine, 16th Edition. McGraw-Hill, 2006.
3. Kumar, Clark. Clinical Medicine. 5th Edition. Saunders. 2002.
4. Legall I. Anal Fistulas and Fissures. eMedicine. Web MD, 2005. Available at URL: <http://www.emedicine.com/emerg/topic495.htm>
5. Longmore, Wilkinson, Rajagopalan. Oxford Handbook of Clinical Medicine. 6th Edition. Oxford University Press. 2004.
6. Medline Plus- Medical Encyclopedia, Entero-enteral or enterocutaneous fistula. US National Library of Medicine, 2004. Available [online] at URL: <http://www.nlm.nih.gov/medlineplus/ency/article/001129.htm>
7. Medline Plus- Medical Encyclopedia. Fistula. US National Library of Medicine, 2005. Available [online] at URL: <http://www.nlm.nih.gov/medlineplus/ency/article/002365.htm>
8. Zagrodnik D. Fistula-in-ano. eMedicine, Web MD, 2004. Available at URL: <http://www.emedicine.com/med/topic2710.htm>

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- [Anorectal Abscess and Fistula-in-Ano](#)

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