Fistula in ano

A fistula in ano is a track, lined by granulation tissue, which connects deeply in the anal canal or rectum and superficially on the skin around the anus. It usually results from an anorectal abscess which burst spontaneously or was opened inadequately. The fistula continues to discharge and, because of constant reinfection from the anal canal or rectum, seldom, if ever, closes permanently without surgical aid.

Types of anal fistulae

These are divided into two groups, according to whether their internal opening is below or above the anorectal ring.

Low-level fistulae open into the anal canal below theanorectal ring.

High-level fistulae open into the anal canal at or above the anorectal ring.

As an alternative to the common anatomical classification , Parks produced another based on the origin of the fistula from an abscess in an anal gland situated in the plane between the internal and external sphincters (the 'anal intersphincteric plane').

The importance of deciding whether a fistula is a low or a high-level type is that a low-level fistula can be laid open usually without fear of permanent incontinence (from damage to the anorectal bundle), while a high-level fistula can be treated only by 'staged' operations, often with the use of a protective colostomy to prevent septic complications and to shorten healing time between the stages.

By the standard classification, a high fistula refers to both a high anal and a pelvirectal fistula. By the Parks' classification, both a high trans sphinctenic and a supralevator fistula would qualify as high, with the intersphincteric falling into either category depending on whether an internal opening was present at all, and at what level it entered the anal canal.

Low-level fistulae

Clinical features. Commonly, the principal symptom is a persistent seropurulent discharge that irritates the skin in the neighbourhood and causes discomfort. Often the history dates back for years. So long as the opening is large enough for the pus to escape, pain is not a symptom, but if the orifice is occluded pain increases until the discharge erupts. Frequently, there is a solitary external opening, usually situated within 3.5—4 cm of the anus, presenting as a small elevation with granulation tissue pouting from the mouth of the opening. Sometimes superficial healing occurs, pus accumulates and an abscess reforms and discharges through the same opening or a new opening. Thus, there may be two or more external openings, usually grouped together on the right or left of the midline.

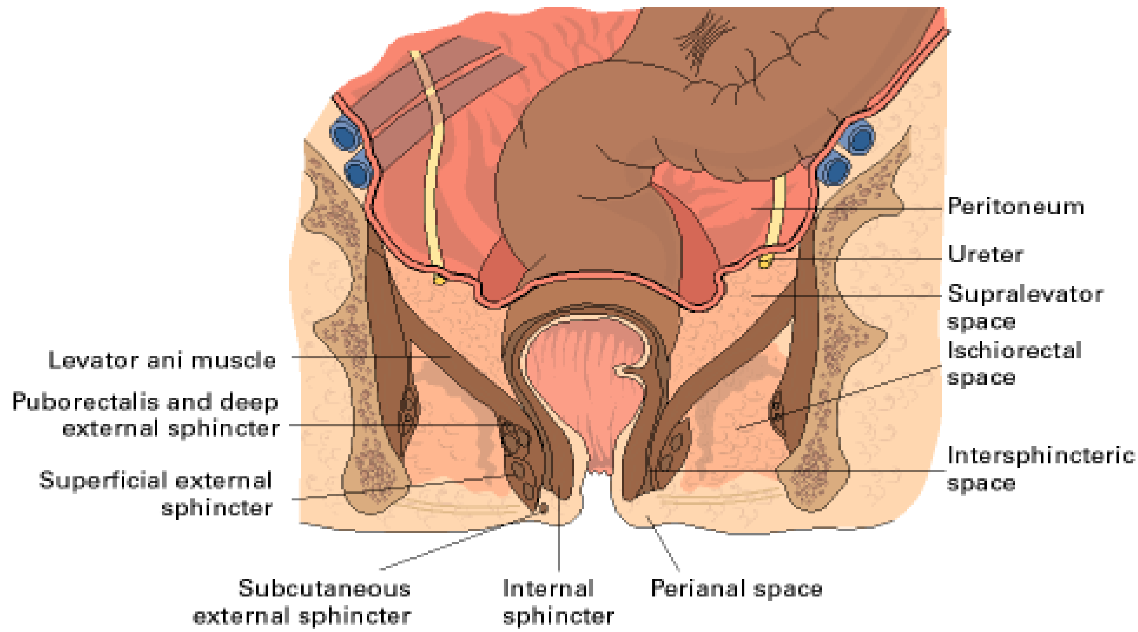
Goodsall's rule. Fistulae with an external opening in relation to the anterior half of the anus tend to be of the direct type. Those with an external opening or openings in relation to the posterior half of the anus, which are much more common, usually have curving tracks, and may be of the horseshoe variety. Note that posteriorly situated fistulae may have multiple external openings which always connect to a solitary internal orifice, usually midline.

Digital examination. Not infrequently an internal opening can be felt as a nodule on the wall of the anal canal. Irrespective of the number of external openings, there is almost invariably only one internal opening.

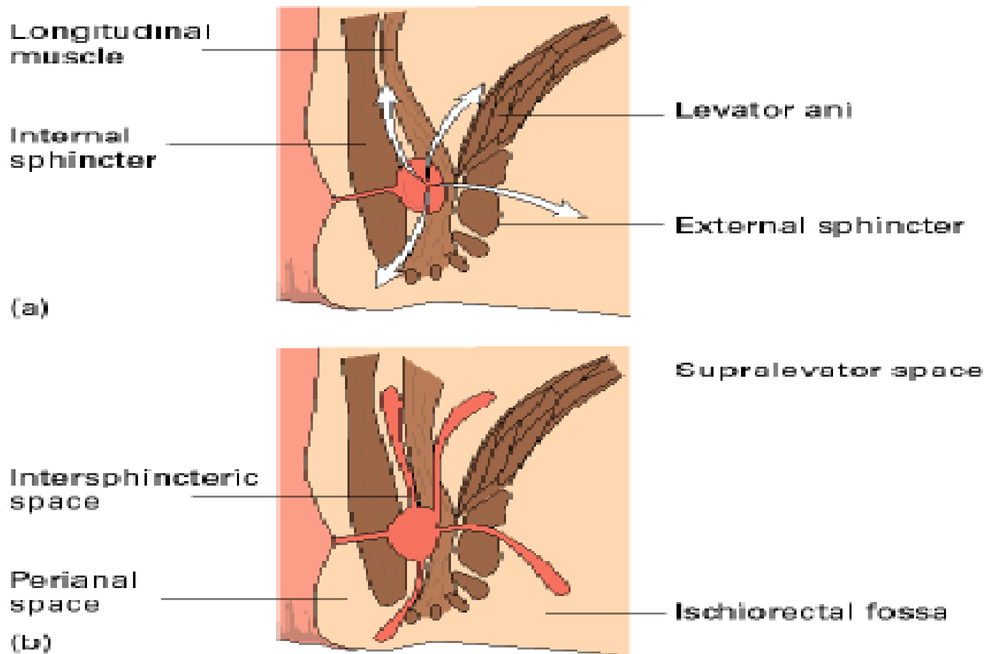
Proctoscopy sometimes will reveal the internal opening of the fistula. Probing should he postponed until the patient is under an anaesthetic in the operating theatre.
Endoluminal ultrasonography and magnetic resonance imaging are being developed as techniques for ‘mapping’ complex fistulae.
Radiography of the thorax should be undertaken and the possibility of pulmonary tuberculosis considered.

Special clinical types of fistulae in ano
Fistula connected with an anal fissure. Unlike the usual fistula in ano, pain (due to the fissure) is a leading symptom. The fistula is very near the anal orifice, usually posterior, and the external opening is often hidden by the sentinel pile.
Fistula with an internal opening above the anorectal ring is due, almost invariably, to penetration by a foreign body or probing and interference with a high abscess.
Granulomatous infections and Crohn’s disease. If induration around a fistula is lacking, if the opening is ragged and flush with the surface, if the surrounding skin is discoloured and the discharge is watery, or if the external openings are multiple, tuberculous or Crohn’s disease should be considered.
Carcinoma arising within perianal flstulae. Colloid carcinoma may complicate fistulae in ano and a colloid carcinoma of the rectum is notoriously liable to be complicated by perianal fistulae.
Hidradenitis suppurativa. This is a chronic infection of apocrine glands around the anal margin giving rise to numerous sinuses. The mons pubis and groin can also be affected. After excision of the area, granulation and healing ate accelerated by using Silastic foam dressing.
Treatment of fistula in ano
Low-level fistulae
The fistulous track must be laid open from its termination to its source.

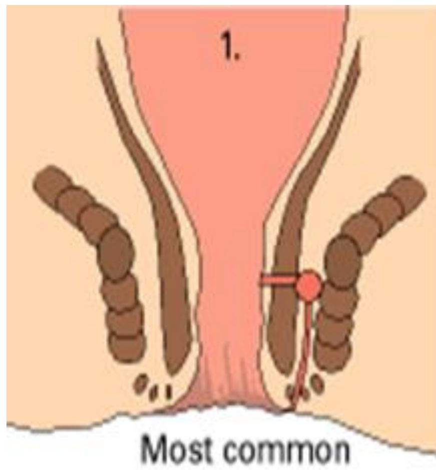
High-level fistulae
The treatment of these cases is difficult. If the track is laid open as for low-level fistulae, incontinence will follow. Treatment of the high level fistula is stepped procedure starting with proximal colostomy then laid open the fistulas tract then wait for healing to occure then closing the colostomy.

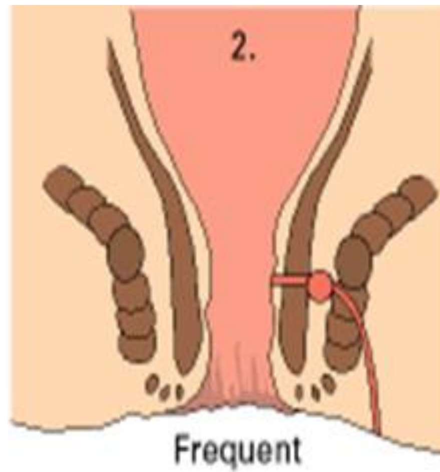


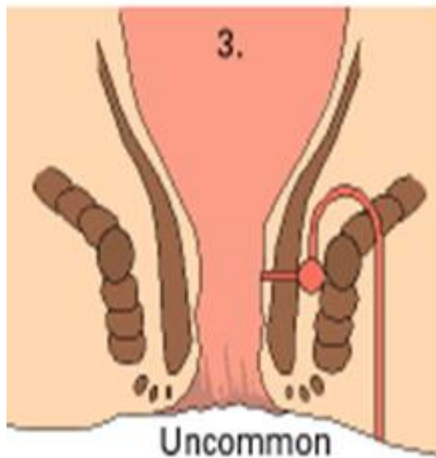
Anal sphincters and associated spaces

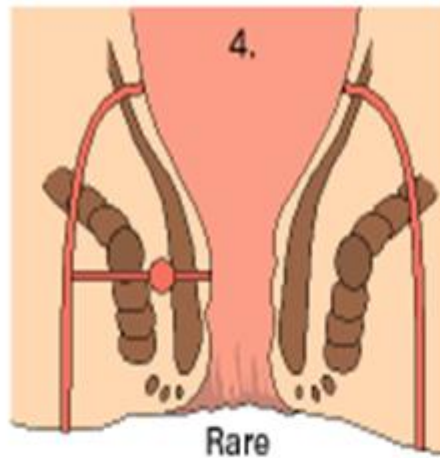


Peri anal abscesses



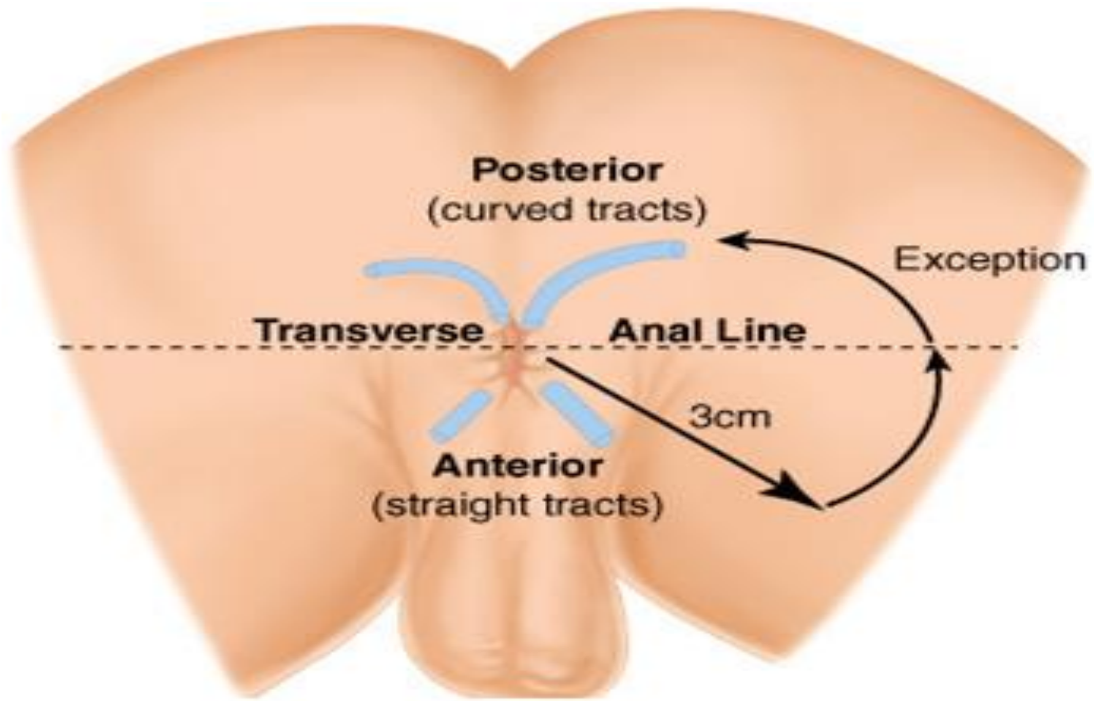






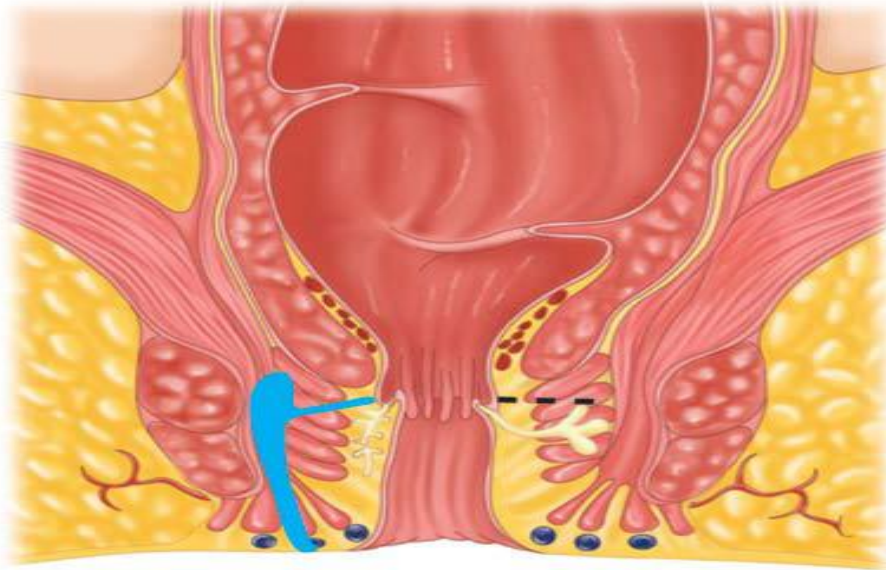
Parks classification for the fistula in ano

1. **Inters sphincteric fistula**
2. **Trans sphincteric fistula**
3. **Supra sphincteric fistula**
4. **Exta sphincteric (supralevator) fistula**



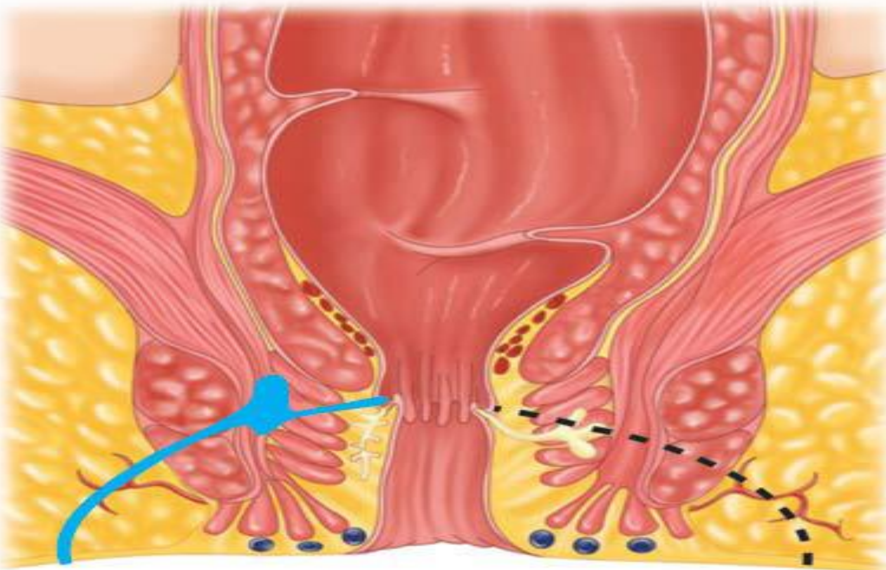
Goodsall's rule

A. Intersphincteric fistula with simple low tract



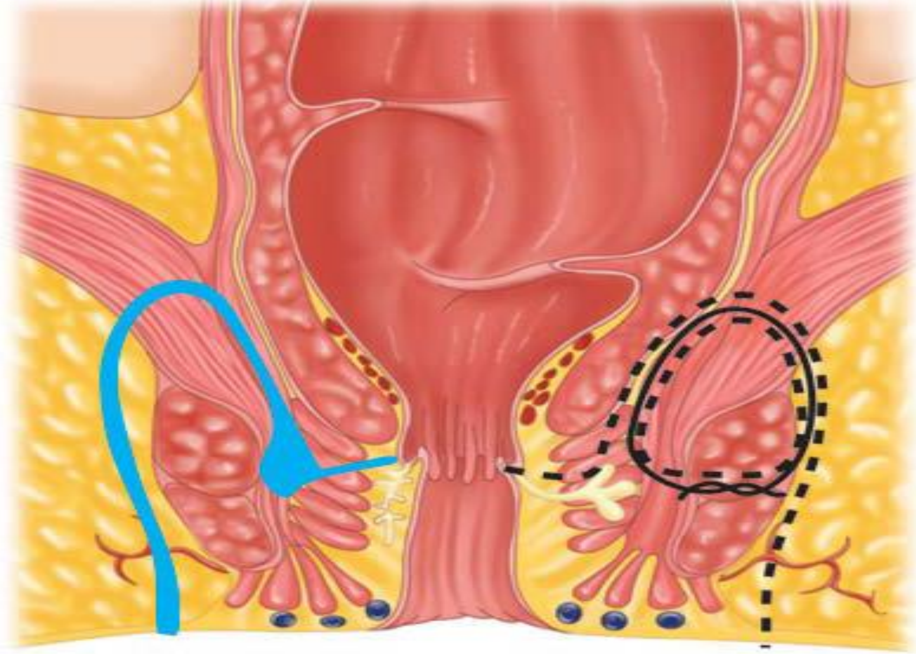
A

B. Transsphincteric fistula



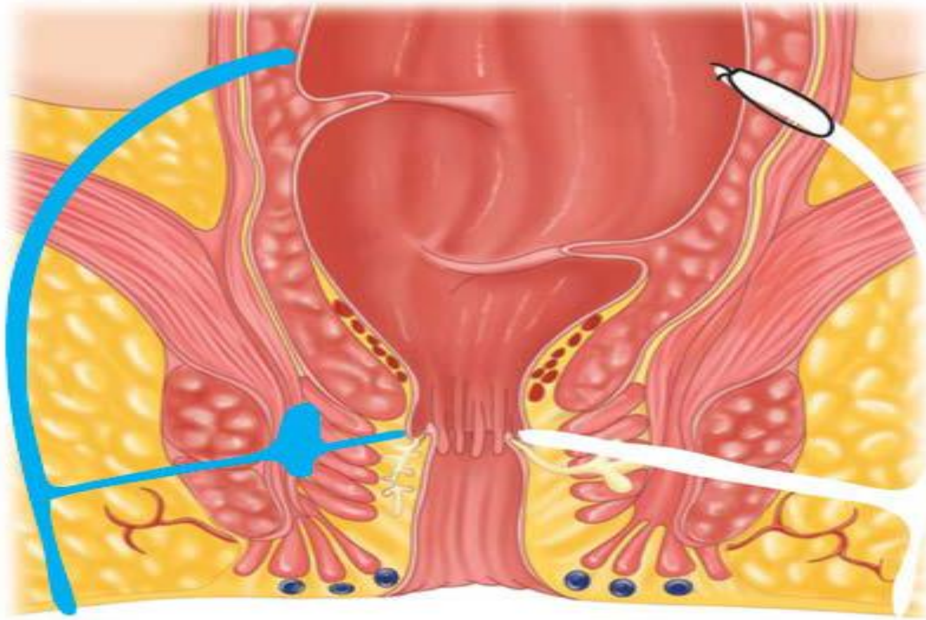
B

C. Suprasphincteric fistula



C

D. Extrasphincteric fistula secondary to anal fistula



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