

## **Pilonidal sinus**

### Introduction

Pilonidal means (pilus - hair and nidus - nest) a 'nest of hairs'. A pilonidal sinus is a sinus (tract under the skin) which commonly contains hairs. It most commonly occurs under the skin between the buttocks (the natal cleft) a short distance above the anus. Rarely, a pilonidal sinus occurs in other sites of the body.

### Causes

There are various theories about the cause. A congenital theory is that the problem develops from a minor congenital or hereditary abnormality in the skin of the natal cleft. This may explain why the condition tends to run in some families. Part of the abnormality in this part of the skin may be that the hairs grow into the skin rather than outwards.

Another theory is that you develop skin dimples (skin pits) in the skin between the buttocks. These may develop from damaged hair follicles (the small structures under the skin that make the hairs) due to local pressure or friction. Because of local pressure, growing hair in the natal cleft may get pushed into the skin pits.

Whatever the cause, once hair fragments become 'stuck' in the skin they irritate the skin and cause inflammation. Inflamed skin quickly becomes infected and so a recurring or persistent infection tends to develop in the affected area. The infection causes the sinus to develop which often contains broken pieces of hair.

The disease is rare in children and in people over the age of 40. It is four times more common in men (as they are hairier than women).

Certain factors increase the risk of developing the condition and include:

- sedentary occupations where one is sitting for long durations
- obesity
- having a hairy, deep natal cleft
- family history of the condition.

This condition used to be called 'jeep bottom' in the world wars as it was common in army jeep drivers. This was probably a result of many hours driving and 'bouncing' on a hard seat which caused irritation, minor injury and pressure around the natal cleft.

### Symptoms and signs

Patients might have a pilonidal sinus without any symptoms. Sometimes a small painless lump is seen and felt by the patient or their partner. The special feature of

the swelling is a tiny hole in it and its location in the natal cleft. More commonly they are associated with symptoms that depend on if their condition is 'acute' or 'chronic'.

- Acute pilonidal sinus disease is a painful swelling that develops over a number of days as an infected abscess (ball of pus and surrounding skin infection) develops in and around the sinus. It
- Chronic pilonidal sinus involves repeated episodes of discharge from the swelling and sinuses in the natal cleft. Hair can often be seen in the openings of the sinuses. The infection never clears up completely but causes pain and discharge on a long term basis. Sometimes the pain and swelling might become severe and become an acute problem causing an abscess that requires an emergency operation.

#### Treatment of pilonidal sinus disease

If you have no symptoms then you will be advised to clear the affected area of hairs (by shaving, hair removing creams, etc.) and to keep the area clean with good personal hygiene.

Acute pilonidal sinus disease with an abscess can be managed with antibiotics and painkillers (such as paracetamol and/or ibuprofen). If the abscess is very painful or large you may need to have an emergency operation to incise (puncture) and drain the abscess.

#### Operations for pilonidal sinus

There are various operations for patients with chronic pilonidal sinus disease. However recurrence rates after surgery can be as high as 40% and you will need to discuss the pros and cons of each operation with your surgeon.

1. Wide excision and healing by secondary intention. This operation involves cutting out the sinus but also cutting out a wide margin of skin which surrounds the sinus. The wound is not stitched but just left to heal by normal healing processes (healing by 'secondary intention'). This usually means that the wound can take several weeks to heal and requires regular dressing until it heals. The advantage of this method is that all inflamed tissue is removed and the chance of recurrence is low.
2. Excision and primary closure. This means taking out the section of skin which contains the sinuses. This is done by cutting the skin either side of the sinus (to form an ellipse shape around the sinus), taking out the sinus, and stitching together the two sides of the ellipse. The advantage for this is, if successful, the wound heals quite quickly. However this is usually a much bigger procedure and has a higher failure rate compared to leaving the wound open to heal.



3. In some cases, where the sinus recurs or is extensive, a plastic surgery technique may be advised to remove the sinus and refashion the nearby skin.
4. Minimally invasive operations include techniques where you have operations where the infected sinuses are cleaned and drained (let out) using setons (pieces of plastic or silk). The idea is to avoid creating a big wound that requires a longer recovery period and repeated dressings. It there means less disruption to your work and lifestyle but requires repeated procedures over a longer period of treatment. The technique can however be successfully used to convert extensive pilonidal sinus disease in to one requiring a smaller operation or be combined with laser or tissue glue injections.