Candida are a group of common fungi that live on the skin and in the mouth. They are normally controlled by the immune system. However, if your immune system is weakened, Candida can grow on mucous membranes (the linings of body passages) or elsewhere in your body, causing symptoms known as candidiasis, candida or thrush.

HIV-negative people may develop candidiasis when their immune systems are temporarily depressed by factors such as stress, smoking or alcohol, or medical conditions such as diabetes. People taking antibiotics may have symptoms of candidiasis, because the antibiotic temporarily kills some of the harmless bacteria that inhabit the body, creating an imbalance that allows Candida to take their place. Using a type of medicine called inhaled corticosteroids (used to treat asthma and other conditions) can have the same effect.

Women often get candidiasis in the vagina, and men under the foreskin or the head of the penis, causing itching, burning or pain. Women are more at risk of candidiasis when they are pregnant. Candidiasis can be passed on from mother to baby during labour. It is also possible to have candidiasis in the mouth (oral thrush) or on the skin.

"If your candidiasis persists, anti-fungal drugs are effective at preventing it in people with low CD4 counts."
Among people with HIV, mild candidiasis in the mouth is relatively common even with a relatively high CD4 cell count (below 500). Women with HIV seem to get vaginal candidiasis more frequently than HIV-negative women.

Candidiasis becomes more common with lower CD4 cell counts. Recurrent infections can be a sign of HIV disease progression. Being on effective HIV treatment will prevent further damage to your immune system and make it much less likely you will have serious problems with candidiasis infections.

**Symptoms**

On the gums, tongue, inner cheek and/or upper throat (oropharyngeal candidiasis), *Candida* grows in white clumps that can be scraped away, or causes red patches called erythema.

Vaginal candidiasis can cause a discharge that can either be thick and yellowy-white, or clear and watery. It may sting when you urinate (pee).

It is possible for men to have genital thrush without having any symptoms. If you do have symptoms, they can include:

- irritation, burning, itching, redness or red patches under the foreskin or on the tip of your penis
- a white, curd-like discharge under the foreskin. You may also notice an unpleasant smell.

Candidiasis on the skin can cause a red, painful and itchy rash, which can then scale over and cause a white or yellow curd-like discharge.

**Diagnosis**

It is easy for a doctor or nurse to diagnose candidiasis in the mouth or oesophagus by looking at the affected areas. Doctors may take a tissue sample or swab to test for the fungus when other parts of the body are affected. They may also do blood tests to look for other conditions associated with candidiasis, if necessary.

**Treatment**

Candidiasis can be treated with anti-fungal drugs.

There are several tablet-form (‘systemic’) drugs available such as itraconazole (*Sporanox*) and fluconazole (*Diflucan*).

You can also get some anti-fungal drugs in other forms, such as a liquid solution for oral candidiasis, creams for skin or nail infections, and creams and pessaries for vaginal candidiasis.
You can buy these anti-fungal treatments over the counter at high-street chemist shops. However, there can be interactions with some anti-HIV drugs, so talk to a doctor or pharmacist before taking them. It is not recommended that you take tablet anti-fungal treatments if you are pregnant.

Some *Candida* strains become resistant to fluconazole, especially among people with low CD4 counts or who have taken it for a long time or several times in quick succession.

Anti-fungal drugs can cause side-effects such as nausea, vomiting and diarrhoea.

Some women find that using an ordinary moisturiser on the affected area helps relieve symptoms. Some people try bathing the genital area with diluted tea tree oil gel or live plain yoghurt to help relieve the symptoms of vaginal thrush. There is not much evidence that tea-tree oil helps and it can dry out the area, causing more irritation. Neither is there clear evidence that eating ‘probiotic’ foods, such as certain yoghurts, helps treat or prevent thrush, so it is not recommended.

Although it is not a sexually transmitted infection, there’s a small risk of passing candidiasis on to a partner during sex, so you may want to avoid having sex until the infection has cleared.

The topical treatments, such as creams and pessaries, can also damage latex condoms, so be careful of this if you are using these creams on your vagina or penis.

**Prevention**

If you have had candidiasis before you started HIV treatment, you may well find that the problem disappears as your **CD4 count** rises and your immune system becomes better at fighting infections.

If your candidiasis persists, anti-fungal drugs are effective at treating it in people with low CD4 counts.

Good personal hygiene will help you recover from candidiasis. Avoiding perfumed soaps, shower gels, tight-fitting underwear or tights can reduce the risk of developing candidiasis. Dry your genital area properly after washing, as candidiasis thrives in damp conditions. Wearing cotton underwear and loose-fitting clothing can help. Avoid vaginal deodorants or douches to prevent vaginal candidiasis. Good oral hygiene can reduce the risk of oral thrush.

**Complications**

Oesophageal candidiasis (thrush in the gullet) is a more serious condition. This form of candidiasis can make it painful to eat.

People with very damaged immune systems can get a complication of candidiasis,
called invasive thrush. If you do have a low CD4 cell count, and become ill during an
attack of candidiasis (for example, if you develop a high temperature, feel sick or have a
headache), seek medical advice immediately.

Find out more

HIV & sex Information booklet
HIV & women Information booklet
Bacterial vaginosis Simple factsheet