

## Patient Information: Candida

Candida accounts for approximately one-third of cases of vaginal itch. It may affect otherwise completely healthy women and so is generally not considered an opportunistic infection, and, is not considered a sexually transmitted disease. The problem is enormously common: 50 percent of women will have had at least one episode by age 25, and as many as 75 percent of all premenopausal women report having had at least one episode requiring medical attention.

### Basic Concepts

A form of yeast called Candida Albicans, which can be found in most people without causing any problems at all, causes vaginal thrush. The reservoir for the Candida infection is generally the gastrointestinal tract, i.e., the gut. Symptomatic thrush occurs when the yeast infects the vagina and grows out of proportion to the other normal vaginal bacteria. Thrush is not a sexually transmitted infection.

### Symptoms Of Thrush May Include:

- Vaginal itching or burning
- A thick white discharge with a "cottage cheese" like appearance
- Redness or swelling of the vagina or skin outside the vagina
- Splitting skin or stinging and burning when passing urine

In most people this is easily treated with anti-fungal cream such as Canesten or occasionally tablets.

### Recurrent or Persistent Thrush

Around 5 - 10% of women have recurrent thrush. If you have four or more episodes of thrush in a period of twelve months it is likely that you will need to seek advice.

## Basic Investigations

Basic tests done by your gynaecologist include a speculum examination such as a Pap smear and taking swabs in order to culture the yeast. This is to positively identify the yeast responsible and to ensure that it is not an alternate form of yeast, which may require a different treatment. In some people, diseases such as diabetes may cause recurrent thrush and you may need to be screened for this.

## Treatment of recurrent thrush

There are many treatments available to manage the symptoms of recurrent thrush but it is very difficult to eradicate the *Candida Albicans* from the body. Recurrences are quite common. For recurrent thrush, a two-part treatment beginning with suppression and then maintenance is used.

## Suppression

This part of the treatment is to relieve symptoms using creams, pessaries or tablets. Around 80% of people respond to this treatment although some may take longer. Generally, anti-fungal creams, pessaries and some oral tablets are available from pharmacies without prescription. They typically contain medications such as clotrimazole, miconazole or nystatin. Some examples of these treatments include clotrimazole, (e.g. Canesten) creams or pessaries, miconazole (e.g. Monistat) seven-day cream or nystatin (e.g. Nilstat) vaginal creams or pessaries.

Generally, oral tablets are recommended if vaginal treatment is unsuccessful in suppressing symptoms to a sufficient level. A single dose of fluconazole (e.g. Diflucan 150 mg) can be bought over the counter but to use it more frequently, which is occasionally needed in order to control recurrent episodes, you will need a prescription from your gynaecologist.

For some women a cortisone cream applied around the vulva may be prescribed to relieve itching. Some formulations, e.g. Hydrozole cream, contain both an anti-inflammatory cortisone cream and anti-fungal cream.

Tablets and creams are equally effective. Creams may be messier to use. Many women prefer oral tablets but these are more expensive and should not be used in breastfeeding or pregnancy. Generally a prolonged course of oral tablets will require supervision by me.

## Maintenance Therapy

Is intended to keep symptoms at a reasonable level and prevent flare-ups. Either creams, pessaries or tablets can be used and it may be necessary to use this treatment for three to six months. Regular, intermittent therapy can also be used to prevent recurrences. The treatment interval may vary from weekly to once a month depending upon your response. Some women have premenstrual exacerbations of Candida and so taking a Diflucan or using a vaginal pessary before periods may be very useful. Fluconazole, Mitroconazole or Canesten and Nilstat pessaries can all be used for long-term maintenance therapy.

## Recurrences

Around 50% of women will experience a recurrence of their symptoms. Another treatment followed by a maintenance course may be necessary.

## Other Causes of Thrush

Sometimes symptoms do not resolve because they are caused by an unusual kind of yeast, which responds less well to the usual treatment. An example of this is Candida Glabrata. In this case fluconazole tablets are not recommended. We occasionally use Boric acid pessaries vaginally for one to two weeks. These work by lowering the vaginal pH, which provides an environment that is not suitable for yeast to grow. Nystatin cream or pessaries may also be helpful. If an unusual kind of yeast is suspected then cultures for this will need to be taken and the identity of the yeast will need to be confirmed by a pathology laboratory. If you have recurrences, even though your general practitioner may already have taken cultures, these will generally be repeated for this reason.

## Antibiotic Therapy

It is common to experience an exacerbation of thrush after antibiotic tablets. This is because the balance of bacteria within your gastrointestinal tract is altered, allowing another growth of Candida, which may then infect the vagina. Some women find a preventative fungal cream pessary or use of probiotics such as Yakult to be useful in this circumstance although there is no hard and fast scientific data.

## Clothing - What to Avoid

Candida thrives in a moist, warm environment. It is for this reason that exacerbations are frequent during pregnancy. You should avoid tight jeans; synthetic underwear or clothing that may lead to sweating. Cotton underwear is recommended. After a recurrence of Candida, boiling underwear or clothes has also been suggested but this has not proven to be helpful and may obviously damage your clothes.

## Your Partner

It is not generally necessary that your partner be treated unless he also has symptoms. Sometimes it may seem that an exacerbation of Candida is linked to sex however this is generally due to subtle damage to the lining of the vagina rather than direct transmission from a male partner. You should therefore make sure that you use a lubricant during sex, which will limit skin abrasion.

## Other Factors in Current Candidiasis

### The Pill

It is not truly known whether the contraceptive pill can cause recurrent thrush. Some women find thrush to be more of a problem since starting the OCP especially with those pills high in oestrogen. There is certainly some theoretical basis for this and if you feel that your symptoms have increased with the introduction of the pill, then we may need to change preparations.

### Injectable Contraceptives (e.g. Depo-Provera)

Progesterone contraceptives work partly by causing a drying of secretions and may be helpful in managing recurrent thrush.

### Vaginal Contraceptive Ring (NuvaRing)

This device may encourage the growth of bacteria in the vagina which limits Candida infection however there is insufficient evidence that this is a beneficial treatment in cases of recurrent Candida.

## Natural Remedies

Most of these methods have not been proven in trials to be beneficial.

The following are unlikely to do you harm but there is not enough evidence to recommend them on a general basis as a cure for thrush:

1. Ariel - 4% acetic acid can be bought from the chemist. The aim is to restore the vagina's acidity and therefore prevent overgrowth of Candida.
2. Yoghurt or Lactobacillus - It has been suggested than inserting a tampon slathered with yogurt may be a treatment for thrush but this is unproven and certainly is very messy. There is more evidence that women who eat large quantities of yogurt or preparations such as Yakult have a decrease in their symptoms.

## Diet

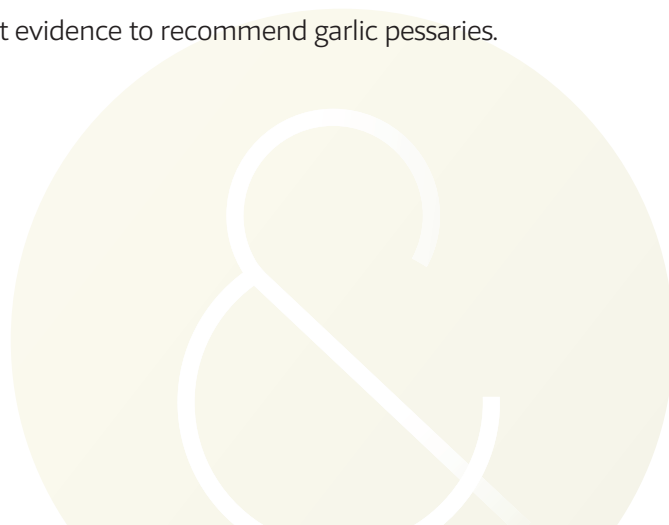
There is no proven link between thrush and diet. There is no evidence that avoiding alcohol, sugars, bread, mushrooms or other yeast containing foods results in a decrease in thrush however if you feel that a certain food definitely makes you worse, then it cannot harm to try.

## Hygiene Measures and Washing

Daily washing is sufficient. Excessive washing, especially using antiseptics or conventional soaps is usually harmful as it removes beneficial bacteria from the vagina and often irritates the vaginal lining (mucosa). You should avoid vaginal deodorants, perfumes, soaps or bubble baths and strictly use a soap-free bath or shower gel.

## Garlic Pessaries

There is insufficient evidence to recommend garlic pessaries.



## Remedies that may be harmful

The following remedies have been known to cause harm in people:

1. Tee-Tree oil. There are no studies to confirm the helpfulness of tee-tree oil. It can however be extremely irritating to the vaginal mucosa and is not recommended.
2. Gentian Violet - There is a small amount of evidence that the use of Gentian Violet may be successful in treating thrush. However, it is very messy at leaving purple stains on the clothes and often also causes irritation around the vagina. It may also cause ulceration and in studies in France, has caused cancer.

## Vaginal Douches

Not recommended and may be harmful. Will almost certainly change the vaginal bacteria for the worse.

## Summary

Recurrent Candidiasis is common, is not linked to any particular foods and is not sexually transmitted. Eradication may sometimes require recurrent and prolonged courses of anti-fungals. Long-term intermittent suppressive therapy may be needed.

