

FEELING FUNGAL?

What is thrush?

"Thrush" is a condition caused by the fungus *Candida albicans* and is also known as Candidosis, Candidiasis or Moniliasis. It is thought that about 75% of all women will suffer from at least one episode during their lifetime. Considering this, and that thrush is the second most common cause of vaginal infection, it is surprising that there is still much controversy surrounding its prevalence: why does it seem that sexual transmission is actually responsible for only 20-40% of cases?

What causes the symptoms?

Candida albicans is a dimorphic symbiotic yeast; in other words it can exist in two different forms and lives with other organisms for mutual benefit. Present in all of us soon after birth, it mainly colonizes the intestinal tract contributing to our bodies vast microbial flora. It is normally kept in bounds by our resident friendly bacteria. 85-90% of yeasts in the female genital tract are *Candida albicans*, the remainder being other *Candida* species e.g. *C. glabrata*, *C. tropicalis*. Certain triggers (see below) cause the spores responsible for the normal asymptomatic colonisation to spread and change to the germinated form - hyphae (microscopic threads that form an intricate web). It is these hyphae that are more resistant to phagocytosis (the process by which the white blood cells attack foreign bodies in defence) and therefore precipitate the symptoms of thrush. Hyphae have also been isolated up to fifteen cell layers deep, explaining how topical antifungal therapy may be followed by a recurrence as the epithelial (skin) cells are shed and the yeast reaches the surface.

Although it is unclear as to how *C. albicans* produces the classic symptoms, one theory suggests an allergy to the enzymes produced by the yeast. There may be a discharge present, ranging from a cottage cheese-

like appearance to a homogenous or even watery consistency. The dominant symptom is usually intense vulval itching (pruritus) which is worse at night, leading to soreness and swelling. There can also be dysuria (pain on urinating) or dyspareunia (pain with sex).

HOWEVER SYMPTOMS CAN VARY WIDELY, SO IT IS ADVISABLE TO GET A DIAGNOSIS AND A MICROBIOLOGICAL CONFIRMATION.

An article in last April's edition of Marie Claire discussed the prevalence of thrush misdiagnosis. According to research carried out by Dr David Nunns at Leicester, 40% of women who report recurrent symptoms to their GP are treated for thrush with no further investigation. As he says:

"Gynaecologists claim that women being treated by their GP's for thrush may in fact, be suffering from a different condition altogether."

It is an alarming statistic that even when the most specific symptom (pruritus) is present, which should enable a diagnosis of thrush to be made readily, correct diagnoses are made in a mere 38% of cases. (My personal experience supports this. Despite having been treated for chronic thrush in the past I have never had a laboratory confirmation.)

What can trigger thrush?

There are a wide range of situations when *candida* may get out of hand:

- * Antibiotics kill both the harmful and helpful bacteria, allowing the *candida* to flourish. People who take antibiotics regularly often have recurrent problems. Antibiotics in animal feed ends up in the meat we eat, exposing us to a steady level of the drug.

- * Taking oral contraceptives and pregnancy raises the hormone levels of oestrogen and/or progesterone and thrush may flourish. The exact reasons for this are unclear but it is thought they create an environment in the vagina that allows the *candida* to attach itself more effectively to the skin and germinate faster.

- * Broken skin, whether from sex or damage/irritation from douching or perfumed soaps, leaves the area more vulnerable to fungal infection.

- * Diet can be a crucial factor in determining the environment in which *candida* will either flourish or perish. Being a yeast, it survives on sugar and starch so avoid foods such as bread, cheese, beer, wine, mushrooms, fruit juices and non-diet soft drinks. Nutrient-poor diets alter the natural pH and mucosal prevalence in the gastrointestinal tract, encouraging *candida* growth. Studies have also shown that the conversion of *candida* from spore to hyphal form may be dependant on biotin and oleic acid deficiency. Taking 300 mcg of biotin with 2 teaspoons of olive oil (as a source of oleic acid) 3 times a day, combined with lactobacillus acidophilus culture has been used successfully. These are all obtainable at health food stores.

How can I avoid thrush?

Prevention is better than cure; here are a few tips on how to prevent recurrent thrush:

1. Avoid foods listed in the bullet point above.
2. Wear loose cotton clothing and stockings instead of tights, as fungi thrive in wet warm environments, and sleep naked.

... Not thrush again!

3. Boost your immune system (see your subscriber sheet called "Boosting your immunity").
4. Stop using perfumed soaps/bubble bath, etc. Try Sanex or Simple soaps. Try showering instead of bathing. Do not wash too often - or try adding a little vinegar to washing water. Never use antiseptics near the vagina.
5. Boil knickers or hot iron them as this will definitely kill off all the *candida*.

If I do get thrush, what should I do?

However if all else fails and you succumb, there are plenty of antifungals available. They can be divided into oral and topical therapy.

1. Studies have shown that oral therapy is preferred by over half of women. However there are complications for those who are pregnant or on other medications e.g. steroids. The first oral antifungal, Ketoconazole, was marketed in the late 1970s until its withdrawal in 1985 following unpleasant side effects. Recent studies have shown that triazoles (such as fluconazole, sold as Diflucan £12.50, and itraconazole, prescribed as Sporanox) have "cure rates" of between 71-92%.
2. Topical treatments include creams and pessaries the latter being inserted right into the vagina using an applicator. This is best done at night (or when horizontal!) to avoid it falling out before it has worked. Canesten pessaries are available at the chemist for £5.95 for one 500mg size. The most common topical treatments used are imidazoles (such as Clotrimazole, sold as Canesten) which have an eradication rate of 89-94%. Recently the Canesten "Combi" pack, containing a tube of cream and one pessary has been released on the market and is available for £7.95. This is a cheaper and equally effective

alternative to Diflucan. Polyenes although of equal efficacy have a longer treatment time of 14 days, so have become less popular. One such product Nystatin - market name Nystan.

3. Washing with plain water will not help, soapy water is worse since it is alkaline and irritant. Try wiping with cotton wool soaked in olive oil or bathing the genital area at least twice a day in a solution of one part vinegar to five parts water.
4. Try carefully peeling a garlic clove without cutting the flesh, and insert into the vagina. This can work wonders!
5. Avoid the yeast encouraging foods mentioned above and drink plenty of water.
6. Live yoghurt either eaten or applied externally, helps restore the vagina's natural flora. Tampons soaked in natural unsweetened yoghurt create an acidic environment, hostile to yeasts.

Jean Robinson (former Chairman of the Patients Association) and now a member of the General Medical Council, reports in the magazine "GP" that pessaries left her thrush as bad as ever, and found yoghurt an "instant, blissful, total relief" and it worked successfully after only 3 nights! So it's another case of everyone being different: persevere until you find what works for you.

What else can candida cause?

Candida has also been held responsible for symptoms other than thrush. Elsewhere in the body this infection has been held to be the cause of:

depression
anxiety
irritability
constipation
heartburn
allergies
vaginitis
acne
cystitis

bloating
tired all the time
migraine
hopelessness
pre-menstrual tension
menstrual problems
diarrhoea

That list is enough to make any good hypochondriac excited! When working out how to attack any of the above, it is worth considering if an overgrowth of *candida albicans* could be the culprit.

RUTH THOMAS

Books on thrush

The classic book on the subject is Leon Chaitow's *Candida Albicans: Could Yeast Be Your Problem?* which has recently been updated. £3.99, Thorsons.

Jane McWhirter, a chiropractor, has brought out a book called *The Practical Guide to Candida* (£7.50, The Green Library) as well as giving a comprehensive description of every approach that has proved helpful, it includes the first UK directory of UK practitioners who treat *candida albicans* holistically - together with how much they charge! It also explores any links between *candida* and ME, the post viral fatigue syndrome which people who complain that they are "tired all the time" are told they will have to live with it.

Other titles include:

Candida Albicans, by Dr Sarah Brewer, £5.99, Thorsons, 90 pages approx.

Thrush - the yeast infection you can beat, by Jane Butterworth. £3.99, Thorsons.