



CANDIDIASIS (Thrush)

WHAT IS THRUSH?

Candidiasis is an infection caused by a common yeast. This yeast (fungus) is found in just about everyone's body. A healthy immune system keeps it under control. Candidiasis is a very common opportunistic infection in people whose immune systems have been damaged by HIV. It usually infects the mouth, throat, or vagina.

In the mouth, the infection is called **thrush**. It looks like white patches similar to cottage cheese, or red spots. It can cause a sore throat, pain when swallowing, nausea, and loss of appetite. The infection can spread deeper into the throat. When this happens, it is called **esophagitis**.

Candidiasis is a common vaginal infection. Symptoms of **vaginitis** include itching, burning, and a thick whitish discharge.

CAN CANDIDIASIS BE PREVENTED?

Candida yeast is normally found in the body. There is no way to prevent exposure. Medications are not normally used to prevent candidiasis for several reasons:

- The disease is not very dangerous
- There are effective drugs to treat the disease
- The yeast could develop resistance to the medications.

HOW IS CANDIDIASIS TREATED?

The goal of treating candidiasis is not to get rid of the yeast: it is normally found in the body. But it needs to be kept under control so that it does not multiply too much.

A healthy immune system can keep candida in balance. Also, bacteria normally found in the body help control candida. Some antibiotics kill these helpful bacteria and cause an outbreak of candida.

Treatments for candidiasis can be local (where the infection is found) or systemic (for the whole body). Many doctors prefer to use local treatment first. It puts the medication directly where it is needed. Also, it has fewer side effects than a systemic treatment and there is less risk of candida becoming resistant to the medications.

Local anti-fungal treatments include creams, suppositories that can be put into the vagina, liquids, and "troches" or "lozenges" that you dissolve in your mouth:

- Clotrimazole troches or cream (Lotrimin, Mycelex)
- Ketoconazole cream (Nizoral)
- Nystatin lozenges or liquid
- Miconazole vaginal inserts and cream (Monistat)
- Terconazole vaginal inserts and cream (Terazol)
- Butoconazole vaginal cream (Femstat)
- Amphotericin liquid

Local treatments rarely cause side effects, but may cause some stinging or irritation where used.

Systemic treatment is needed if the candidiasis does not respond to local treatments, or has spread into the throat (esophagitis). Some systemic drugs are taken in pill form. These include ketoconazole (Nizoral), fluconazole (Diflucan), or itraconazole (Sporanox). The most common side effects are nausea, vomiting, and abdominal pain. Less than 20% of people have these side effects.

Because candidiasis can come back repeatedly, some doctors prescribe anti-fungal drugs on a long-term basis. This can cause resistance: the candida yeast mutates so that the drug no longer works.

For serious cases that do not respond to other medications, amphotericin B can be used. This is a very potent and toxic drug, given intravenously. The major side effects are kidney problems and anemia. Other reactions include fever, chills, nausea, vomiting, and

headache. These reactions usually get better after the first few intravenous doses.

NATURAL THERAPIES FOR CANDIDIASIS

Several non-drug therapies appear to help with candidiasis. None of these has been carefully studied to prove it works against candidiasis:

- Reducing the amount of sugar you eat slows down candidiasis.
- Pau d'Arco is used by making a tea from the bark of a South American tree. It is reported to have antifungal properties.
- Garlic is known to have anti-fungal and anti-bacterial properties.
- Tea tree oil can be diluted in water and gargled.
- Lactobacillus (acidophilus), found in yogurt, is a bacteria that helps keep fungus under control. It may help to take it after taking antibiotics.
- Gamma-linoleic acid (GLA) and Biotin both seem to help prevent the spread of candida. GLA is found in several cold-pressed oils. Biotin is a B vitamin.

THE BOTTOM LINE

Candida is a very common yeast (fungal) infection. The fungus normally lives in the body and so cannot be eliminated.

Most candida infections are easily treated with local therapies. In people with weakened immune systems, these infections become more persistent. Systemic anti-fungal drugs can be taken, but candida might become resistant to them. The most potent anti-fungal drug, amphotericin B, has serious side effects.

There are several natural therapies reported to be helpful in controlling candida infections.

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