



Dubious "Yeast Allergies"

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Candida albicans (sometimes referred to as monilia) is a fungus normally present on the skin and in the mouth, intestinal tract, and vagina. Under certain conditions, it can multiply and infect the surface of the skin or mucous membranes. [Such infections are usually minor, but serious and deeper infections can occur](#), especially in patients whose resistance has been weakened by immunosuppressant drugs and serious illnesses such as AIDS. However, some practitioners claim that even when clinical signs of infection are absent, yeast-related problems can cause or trigger multiple symptoms such as fatigue, irritability, constipation, diarrhea, abdominal bloating, mood swings, depression, anxiety, dizziness, unexpected weight gain, difficulty in concentrating, muscle and joint pain, cravings for sugar or alcoholic beverages, psoriasis, hives, respiratory and ear problems, menstrual problems, infertility, impotence, bladder infections, prostatitis, and "feeling bad all over." The list of symptoms is similar to that of [multiple chemical sensitivity](#) (MCS).

According to its promoters—some of whom practice "clinical ecology"—one out of three Americans suffers from yeast-related illness, which they refer to as chronic candidiasis, candidiasis hypersensitivity, Candida-related complex, the yeast syndrome, yeast allergy, yeast overgrowth, or simply "Candida" or "yeast problem." Many clinical ecologists view this alleged problem as an underlying cause of MCS. It is also touted as an important factor in AIDS, rheumatoid arthritis, multiple sclerosis, and schizophrenia, as well as "hypoglycemia," "mercury-amalgam toxicity" and at least twenty other conditions. In recent years, proponents have suggested that chronic fatigue syndrome and Candida infections are closely related [1]. **This article uses the term "candidiasis hypersensitivity" in quotation marks to indicate that neither infection nor actual allergy is present.**

The leading promoters of "candidiasis hypersensitivity" have been C. Orian Truss, M.D., of Birmingham, Alabama and William G. Crook, M.D., of Jackson, Tennessee. Truss put forth his concepts with a series of articles that began in 1978 in the *Journal of Orthomolecular Psychiatry*, an offbeat publication that caters to physicians who prescribe large amounts of vitamins to emotionally disturbed patients. In 1982, he self-published a book called *The Missing Diagnosis*. [2].

Crook, who died in October 2002, stated that he began treating and communicating about yeast problems in 1979 after reading one of Truss's papers. In 1983, he published the first edition of his book *The Yeast Connection* [3], which he said was inspired by a television appearance that drew 7,300 requests for further information. Two years later, he established the International Health Foundation to help respond to the requests he kept generating. The foundation's goals were to "work to obtain credibility for the relationship of *Candida albicans* to a diverse group of health disorders" and "helping children with repeated ear infections, hyperactivity, attention deficits and related behavior and learning problems." (He also espoused a variety of unconventional theories about allergies being at the root of these problems.) During the early 1990s, a booklet describing these goals listed Tipper Gore as a member of the foundation's 33-person advisory board [4]. In 1998, Truss and Crook launched an organization called the Candida and Dysbiosis Information Foundation.

The Yeast Connection states: "If a careful check-up doesn't reveal the cause for your symptoms, and your medical history [as described in his book] is typical, it's possible or even probable that your health problems are yeast-connected." The book also states that tests such as cultures don't help much in diagnosis because "Candida germs live in every person's body . . . Therefore the diagnosis is suspected from the patient's history and confirmed by his response to treatment."

Crook claimed that the problem arises because "antibiotics kill 'friendly germs' while they're killing enemies, and when friendly germs are knocked out, yeast germs multiply. Diets rich in carbohydrates and yeasts, birth control pills, cortisone, and other drugs also stimulate yeast growth." He also claimed that the yeasts produce toxins that weaken the immune system, which is also adversely affected by nutritional deficiencies, sugar consumption, and exposure to environmental molds and chemicals. To correct these alleged problems, he prescribes allergenic extracts, antifungal drugs, vitamin and mineral supplements, and diets that avoid refined carbohydrates, processed foods, and (initially) fruits and milk.

Crook's concepts are a mixture of fact and fancy. It is correct that antibiotics, birth control pills, and certain other drugs can stimulate overgrowth of yeasts, most commonly in the vagina. However:

- A yeast problem should not be diagnosed without definite clinical signs of an infection. The signs of a local infection, for example, can include itching, soreness, rash, and a discharge.
- If an infection is present, treatment with an antifungal drug makes sense. However, the rest of Crook's recommendations are senseless whether an infection is present or not.

Severe Criticism

The American Academy of Allergy, Asthma and Immunology has strongly criticized the concept of "candidiasis hypersensitivity syndrome" and the diagnostic and treatment approaches its proponents use. AAAAI's position statement concludes: (1) the concept of candidiasis hypersensitivity is speculative and unproven; (2) its basic elements would apply to almost all sick patients at some time because its supposed symptoms are essentially universal; (3) overuse of oral antifungal agents could lead to the development of resistant germs that could menace others; (4) adverse effects of oral antifungal agents are rare, but some inevitably will occur; and (5) neither patients nor doctors can determine effectiveness (as opposed to coincidence) without controlled trials. Because allergic symptoms can be influenced by many factors, including emotions, experiments must be designed to separate the effects of the procedure being tested from the effects of other factors [5]. Several years ago, Crook told me that he had no intention of conducting a controlled test because he was "a clinician, not a researcher."

The antifungal drug most often prescribed by proponents of "candidiasis hypersensitivity" is nystatin (*Mycostatin, Nilstat*), which seldom has significant side effects. However, they also prescribe ketoconazole (*Nizoral*), which has an incidence of liver toxicity (hepatitis) of about 1 in 10,000. The liver injury usually reverses when the drug is discontinued, but ketoconazole has been responsible for several deaths. For this reason it should be prescribed only for serious infections. Both of these drugs are expensive [6]. In a double-blind trial, the antifungal drug nystatin did no better than a placebo in relieving systemic or psychological symptoms of "candidiasis hypersensitivity syndrome." [7] A study of 100 consecutive chronic fatigue patients found no differences in historical, physical, or laboratory findings among those who believed their problem was yeast-related and those who did not [8].

Problems Reported

In 1986, two doctors from Loyola University Stritch School of Medicine reported seeing four young women whose nonspecific complaints included chronic fatigue, anxiety, and depression. All four mistakenly believed they had disseminated candidiasis and were taking nystatin or ketoconazole, which had been prescribed by their family physicians. All had read *The Yeast Connection* and had carried the book into the office during their visits. One patient on ketoconazole had hepatitis, which resolved when the drug was stopped [9].

Worse yet, a case has been reported of a child with a severe case of disseminated candidiasis who had been seen by a "Candida doctor" and given inadequate treatment. The report concluded that "the advice of yeast connection advocates may be inappropriate even for illnesses in which Candida is implicated." [10]

Perhaps the saddest report was a letter in a health-food magazine from a woman appealing for help and encouragement. She said that a clinical ecologist had been treating her for allergies and Candida for four years, that initial tests showed she "was allergic to all foods" as well as to numerous chemicals and inhalants, and that so far nothing had helped.

Dubious Diagnostic Questionnaires

The Yeast Connection contains a 70 or 90-item "candida questionnaire" and score sheet to determine how likely it is that health problems are yeast-connected. Crook has marketed several versions to physicians who accept his theories. The documents state, "if your point score is over 180, candida almost certainly plays a role in causing your health problems." Scores over 120 mean "candida probably plays a role," 60 to 120 means it "possibly plays a role," and scores under 60 mean it is "less apt" to play a significant role.

Shorter questionnaires have appeared in magazine articles, ads for products sold through health food stores, and flyers used by chiropractors. The most notorious were used as marketing devices by Nature's Way, of Springville Utah, whose product *Control*, was a conglomeration of capsules containing acidophilus, evening primrose oil, vitamin E, linseed oil, caprylic acid, pau d'arco, and several other substances.

Under federal law, any product intended for the prevention or treatment of disease is a drug, and it is illegal to market new drugs that do not have FDA approval. In 1989, the FDA's Health Fraud Branch issued instructions and a sample regulatory letter indicating that it was illegal to market vitamin products intended for treating yeast infections. In 1990, Nature's Way and its president, Kenneth Murdock, settled an FTC Complaint by signing a consent agreement to stop making unsubstantiated claims that *Control* is helpful against yeast infections caused by *Candida albicans*.

Nature's Way promoted *Control* with several versions of a self-test—one of which is pictured below—based on common symptoms the manufacturer claimed were associated with yeast problems. The FTC charged that the test was not valid for this purpose. The company also agreed to pay \$30,000 to the National Institutes of Health to support research on yeast infections [11].

YEAST INFECTIONS
Self-Test*
for a Candida Infection

1. Do you feel tired most of the time or have muscle aches with normal activity?	4. Do you suffer from mood swings, irritability, anxiety or depression?
2. Do you suffer from intestinal discomfort—bloating, constipation and/or diarrhea?	5. Are you ever dizzy, light-headed or have trouble concentrating or thinking clearly?
3. Do you crave sugar, breads, beer or other alcoholic beverages?	6. Have you ever used antibiotics, birth control pills or steroid drugs?

Three or more "yes" answers indicate a high to very high probability that you have a yeast infection.
Control helps combat that infection.

This questionnaire was part of a health-food store display Nature's Way distributed in 1986.
Do you know many people who would not answer "yes" to at least three questions?

This action and several others have driven most of the "anti-Candida" concoctions from the marketplace and stopped their direct promotion to the public. However, the ingredients of these products are still marketed individually as "dietary supplements" and practitioners still prescribe them to their patients.

In 1990, the New Jersey State Attorney General secured consent agreements barring Linda Choi, M.D., and Pruyakant Doshi, M.D., from diagnosing and treating "Candida albicans overgrowth syndrome." Both were assessed \$3,000 for investigative costs and had their medical license placed on probation for one year. Among other things, investigation by the State medical board had concluded that "Candida albicans overgrowth" was not generally recognized as a clinical entity and had not been established as the cause of the conditions the doctors treated.

I believe that practitioners who diagnose nonexistent "yeast problems" should have their licenses revoked. Some apply this diagnosis to nearly every patient they see.

References

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5. Anderson JA and others. [Position statement on candidiasis hypersensitivity](#). *Journal of Allergy and Clinical Immunology* 78:271-273, 1986.
6. Tabor E. Potential toxicity of ketoconazole. *Journal of Infectious Disease* 152:233, 1985.
7. Dismukes W and others. [A randomized double-blind trial of nystatin therapy for the candidiasis hypersensitivity syndrome](#). *New England Journal of Medicine* 323:1717-1723, 1990.
8. Renfro L and others. Yeast connection among 100 patients with chronic fatigue. *American Journal of Medicine* 86:165-168, 1989.
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10. Haas A and others. The "Yeast Connection" meets chronic mucocutaneous candidiasis. *New England Journal of Medicine* 314:854-855, 1986.
11. [FTC charges Nature's Way products ads for "Control" were false and unsubstantiated: company to pay \\$30,000 for medical research, under consent agreement](#). FTC News Notes, Jan 29, 1990.

+ Dubious "Yeast Allergies". Stephen Barrett, M.D. October 8, 2005. Candida albicans (sometimes referred to as monilia) is a fungus normally present on the skin and in the mouth, intestinal tract, and vagina. A yeast problem should not be diagnosed without definite clinical signs of an infection. The signs of a local infection, for example, can include itching, soreness, rash, and a discharge. If an infection is present, treatment with an antifungal drug makes sense. bioAllers® Mold, yeast and dust is designed using homeopathic principles and may help provide general relief of allergy symptoms due to mold, yeast or dust. Homeopathic theory is that symptom relief is attained through stimulation of the natural healing response. Precise levels of homeopathic ingredients are included in this formula.