

A GUIDE TO CANDIDA ALBICANS



Candida Albicans

There are many strains of Candida in the environment. The two which affect humans to the greatest extent are Candida albicans and Candida tropicalis. In this discussion the reference to Candida will refer to candida albicans. The disease process that its overgrowth produces is referred to as chronic mucocutaneous candidiasis.

candida albicans is a body yeast present in all humans. Normally its presence is limited to the skin, the vagina, and the mucous membranes of the gastrointestinal and upper respiratory tracts. This yeast is controlled by the normal bacterial flora and the immune system, however, Candida is an opportunistic organism. If something destroys the normal flora and the immune system becomes depressed, inefficient or overwhelmed, the yeast multiplies and an overgrowth (chronic infection) results.

These colonies release metabolic products and toxins which may be absorbed into the blood stream causing widely varying symptoms, including lethargy, chronic diarrhoea, constipation, asthma, headaches, and/or severe depression. The symptoms can be so severe that they are totally incapacitating, or as mild as indigestion and heartburn. Any symptom is possible, and any organ can be a target. Candida is known as the great masquerade. Many patients with severe yeast problems have never told all their symptoms to one physician for fear of being labelled neurotic or hypochondriacal.

Although Candidiasis is typically thought of as a minor infection

of the mucous membranes, skin and nails, Candida overgrowth is not a simple problem. The use of antibiotics kills the normal bacterial flora and allows the Candida to proliferate and to become a chronic intestinal infection. This is an increasing problem as more and more antibiotics are prescribed; also, many meats are loaded with antibiotics. Low stomach acid also fosters the growth of Candida.

The use of birth control pills, cortisone, other steroids, and non-steroidal anti-inflammatory drugs, causes hormone imbalances in the body, which also allow the Candida to grow more abundantly. The chemicals produced by the yeast attack the immune system, and if it weakens, the Candida will spread and involve more tissues. Because of a compromised immune system membranes swell; micro-organisms multiply; and nasal, throat, sinus, ear, bronchial, bladder, vaginal and other infections develop. When such infections develop, antibiotics are prescribed which promote additional yeast growth. Health problems will continue until the cycle is interrupted by appropriate treatment.

The most common place for growth of the Candida is in the alimentary canal, therefore diet contributes to continuing yeast growth. Diets with excess refined or simple carbohydrates and junk food contribute heavily to Candida overgrowth. The average American eats over 100lb of sugar in a year. Foods high in mould or yeast content such as bread, brewers yeast, beer, cheese and mushrooms, also contribute to the problem of Candida overgrowth.

Candida albicans causes further problems and damage by interfering with the receptor sites for hormones in the body.

The result is a slowing down of the production of some of the hormones such as thyroid, adrenal, oestrogen or progesterone, pituitary, or testosterone. The entire endocrine system then functions poorly.

Candida albicans is capable of producing acetaldehyde and ethanol. Human metabolism cannot convert these materials into useful compounds and must detoxify them. When the load of these materials is too great, poor memory, light headedness and lack of concentration result. The acetaldehyde disrupts cell membrane function and alters protein synthesis. It is also a breakdown product of alcohol and is thought to cause the symptoms of a hangover.

Candida albicans is a very complex organism. It releases seventy nine toxins (known to date) which adversely affect the human body. If left untreated, a chronic *Candida* infection and overgrowth can severely debilitate the body, leaving it susceptible to more serious diseases.

Candida normally has a rounded, yeast like shape. However it can produce an invasive form in which it develops branching threads called mycelia. These mycelial branches can penetrate the mucous membrane of the intestinal tract looking for food. This mycelial form is more difficult to eradicate.

Men, women and children can have Candidiasis. Since women have a more complex hormone system, Candidiasis occurs in them more frequently, and with more severe effects. The children that it strikes are those who have received large quantities of antibiotics and/or are consuming excessive sugar and junk food. *Candida* symptoms fall into three main areas.

- 1.** Symptoms in the intestinal and urinary tracts include vaginal thrush - however, a Vega test will confirm this condition; menstrual complaints; bowel problems, such as bloating, constipation, diarrhoea and gas; prostatitis; and inflammations of the oesophagus, stomach lining, colon and bladder, athlete's foot and skin disorders.
- 2.** Allergic symptoms include asthma, migraines, headaches, bronchitis, hay fever, earaches, hives, and severe chemical and food sensitivities, Myalgic Encephalitis.
- 3.** Emotional and mental problems include severe depression, confusion, extreme irritability, fretfulness, memory lapses, inability to concentrate, difficulty in reasoning, drowsiness, insomnia, lethargy and loss of self confidence.

Candida overgrowth is also suspect in infertility difficulties in women. Babies can be infected with *Candida albicans* as they pass through the birth canal if the mother has a yeast vaginitis. candida also seriously interferes with the digestion and absorption of nutrients from the intestinal tract, and an untreated infection can lead to overt nutrient deficiency states. It can interfere with the absorption of fat soluble vitamins and disrupts magnesium function. It interferes with the production of B vitamins in the intestinal tract by the action of normal bacterial flora.

Patient history and symptoms are usually the key to diagnosis of Candidiasis.

The treatment for Candidiasis is to reduce the yeast in the tissues and to build up the body's ability to keep it out.

There are several ways yeast overgrowth may be treated. A combination is usually most effective, based on the patient's history and response to treatment.

All areas, on and in body, must be treated simultaneously.

Several facets of this treatment are:

1. Use of a special, yeast free diet
2. Use of the fatty acids, caprylic acid or undecylenic acid which have fungicidal properties.
3. Use of a Lactobacillus acidophilus preparation.
Bacterial colonies must be re-implanted on the mucosal lining of the intestinal tract.
4. Avoidance of the use of antibiotics, steroids and non-steroidal anti-inflammatory drugs.
5. Avoidance of birth control pills and hormones, particularly progesterone.
6. Avoidance of environmental moulds at home and at work.
7. Treatment of any other suspected illness.
8. Avoidance of chemicals in the environment as much as possible in order to lower the total load on the immune system.
9. Consumption of the following nutrients: proteins, complex carbohydrates, predominantly unsaturated fats and oils, vitamins and minerals, garlic, Evening Primrose Oil.
10. Supplementation of additional nutrients, glandulars, and enzymes, that will enhance the proper functioning of the digestive, immune and endocrine systems.

Since most Candida infections are long standing and well established, **treatment must be persistent.** It must be continued for as long as necessary to prevent symptoms from returning. All sites of Candida infection in the body must be treated. There is no "quick fix". Treatment length will vary from patient to patient: **treatment must be continued** until there is no relapse when the treatment is withdrawn.

Destroying the Candida organism does not immediately undo its damage to the immune system and hormone systems. It has been found that it takes about one to three years for the body to build back its immunocompetence against Candida albicans infections. Each individual is unique; therefore, treatment programs must be tailored to each individual.

Faithfulness to the treatment program will be a big factor in determining the rapidity with which Candidiasis is defeated.

If Candida overgrowth is not controlled it will continue to spread and break down the body's ability to fight off other serious diseases.

Candida albicans is such a stubborn organism that a strict diet alone, while essential, will not kill off the organism. Supplementation with herbal and nutritional medicines is essential. The following are the most important medicines to take.

1. A yeast free 'B' complex containing all eleven members of the 'B' vitamin group. These vitamins are essential to health and are often missed from the Candida diet.

- 2.** Acidophilus caps. They are known as probiotics and replace and healthy bacteria in the gut. It is these colonies of healthy bacteria that keep Candida albicans and other unwanted bacteria and fungi under control. Take with breakfast in order to bypass the stomach acids.
- 3.** Golden seal root. A powerful anti fungal. This herbal medicine will kill off Candida albicans in the bloodstream, this condition is known as systemic candidiasis, castor bean oil extract is another powerful anti fungal.
- 4.** Caprylic acid. A short chain fatty acid extracted from coconut milk. This essential fatty acid kills off yeast cells by bursting the outer membrane. The yeast cell then delivers its toxic load which is processed by the liver. Clearly it is sensible to detox from Candida albicans at a sensible rate and not to destroy this organism too rapidly.
- 5.** Bulking agent: usually made from psyllium husks which have a powerful cleaning action on the bowel wall. It is clearly essential to keep the dead yeast cells and toxic poisons moving through the digestive system,
- 6.** Other anti-fungi's include: garlic, olive oil, olive leaf extract, pau d' arco. chamomile flowers, oregano oil.
- 7.** It is important to support the pancreas while on an anti Candida regime. Pancreatin from Solgar is an excellent supplement.
- 8.** Digestive enzymes are capable of digesting yeast cells. Consult your practitioner.

Foods which are allowed

Cereals: (Wholegrain or Wholemeal) Sugar Free

Oats, Barley, Millet, Buckwheat, Brown rice, Wholegrain wheat
in strict moderation, Flax seed meal

Protein

Meat: Beef, Veal, Lamb, Mutton, Pork, Rabbit

Poultry: Chicken, Turkey, Duck, Goose, Quail

Fish: All kinds once or twice weekly

Eggs: Chicken, Duck, Quail

Nuts: Almonds, Cashews, Brazil nuts, Macadamia, Pecan

Seeds: Pumpking, Sesame, Sunflower, Lentils.

Dried Peas, Beans

Milk & Dairy Products

Milk: Goats, Rice, Soya, Oat

Natural Yoghurt: (Preferably with Lactobacillus, Acidophilus)

Cheese: Cottage, Goats or Sheeps yoghurt containing
live bacteria

Cream: Butter

Vegetables: All fresh vegetables (except mushrooms)
Vegetable juice

Salad: Lettuce, Cucumber, Tomatoes, Radishes, Onions,
Cress, Carrots, Garlic (Lots), Unpickled beetroot

Fruit: Bananas in moderation

Drinks: Tea and Coffee (without sugar), Herbal Teas
eg Camomile, Peppermint, Mineral water, Vegetable juice
Various Health drinks such as AquaLibra

Foods which must be avoided

Fruit, dried fruit, fruit juice, tinned fruit

All cheeses

Bread and butter rolls with yeast in them

Sugars, sweeteners, fructose, glucose, malt, syrups

Yeast spreads, eg Marmite

Smoked fish and smoked meats

Peanuts and pistachio nuts

All alcoholic beverages

Frozen vegetables and mushrooms of any sort

Sweets, chocolate, cakes, biscuits, ice cream

Pickles, chutneys, ketchups

Fizzy drinks

Tomato sauce, tomato puree, tomato paste, tomato juice

Pickled, smoked, or otherwise processed meats and fish,

including sausages, hot-dogs, corned beef,

pastrami and pickled fish such as herrings

Recipes

Soda Bread

2 cups of wholemeal plain flour

1/2 level teaspoon of salt

1/2 level teaspoon of bicarbonate of soda

1 level teaspoon of cream of tartar

1/2 cup of water

1/2 cup of milk

Sift dry ingredients and make into dough with the liquids. Quickly form into a round flat loaf and place on a greased baking tray. Cover loaf with a cake tin 15cm deep and bake at 230 ° C (450 ° F) for 30 minutes to brown.

Potato cakes

2 medium potatoes, grated

1 small onion, chopped (optional)

Mix potato and onion and place sufficient quantity into a hot pan with approximately 1 tablespoon of butter, margarine or oil and brown on both sides.