What if I had cancer?

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"Heavy Antibiotic Linked to Increased Lymphoma Risk"

> Using antibiotics more than 10 times during adulthood is associated with an increased likelihood of developing non-Hodgkin's lymphoma (NHL), a cancer that affects the body's lymphatic system, new research suggests.
> *(American Journal of Epidemiology, November 15, 2005.)*

"Herbal Extract May Treat Prostate Cancer"

> An olive-oil based herbal extract preparation suppresses the growth of prostate cancer cells and induces prostate cancer cells to self-destruct, according to a new study.
> *(Nutrition and Cancer, October 2005.)*

What if I had cancer?

Being a former chemotherapy infusion nurse, one of the most frequent questions that I get asked is, "If you were me and had cancer, would you take chemotherapy?" I always respond, "I cannot make that decision for you. You have to make that decision. However, I will give you the truth and the facts regarding conventional and non-conventional remedies." And so, if you are reading this... and you have cancer... here is the truth about your options:

What is cancer?

Cancers are a large group of diseases with the following characteristics:

1. Abnormal cell structure. The nuclei of cancer cells are different from that of "normal" cells.
2. Uncontrolled growth.
3. Rapid cellular proliferation, which means that cancer cells continue to reproduce, while normal cells die.
4. Ability to spread. Cancer cells easily become dislodged and can spread throughout the body.
5. Ability to invade other tissues. Cancer cells secrete enzymes that allow them to invade the blood and lymphatic system.
6. Heightened sensitivity to internal growth factors. Cancer cells divide and grow more rapidly than normal cells.
7. Ability to divide without anchorage. Cancer cells can divide in suspension or while traveling.
8. Accelerated use of nutrients. Cancer cells use the body's own nutrients more rapidly than do normal cells.
9. Angiogenesis. Cancer cells promote the building of new capillaries, which supply the tumor with nutrients.

What are the similarities between cancer and fungi?

Fungal DNA can incorporate with its host (human) DNA, forming a hybrid cell. *(Cook, C.B. Pappas, P.W. Rudolph, E.D. Cellular interactions in symbiosis and parasitism. 1980. Ohio State University Press. Columbus, Ohio.)* Therefore, this new hybrid cell, by definition, has "abnormal cell structure and an abnormal nucleus," the same as cancer cells. Fungal cells can thrive and grow in an environment (human environment) with nutrients, enzymes and metabolites. These nutrients cause hybrid cells to multiply just as cancer cells multiply with nutrients, enzymes and

metabolites. *(White, M. W. Cancer is a hybrid produced by a relationship between a plant bacterium and a mammalian cell: an original concept. 1996. 47. 35-38. Medical Hypothesis.)* Fungal cells are also nourished through the blood supply of the host (human). As with angiogenesis of cancer cells, fungal cells are also supplied nutrients via capillaries. The continuous circulation of blood carries the nutrients that further the multiplication process for the fungal cells. *(White, M.W. A specific oxidant is the prime factor in cancer cells' origin and growth. 1995. 42. 313-317. Medical Hypothesis.)*

Other similarities between fungi and cancer cells include:

- Both metabolize nutrients in the absence of oxygen. *(White, M.W.; Moore-Landecker, Fundamentals of Fungi, 4th ed. 1996; Warbur, O. & Okmoto, Yoshicki, Metabolism of Tumors 1930; White, M.W. 1996.)*
- Both thrive on sugar. *(Moore-Landecker. 1996; Warburg, 1930-Nobel Prize in 1931.)*
- Both produce lactic acid. *(White 1996)*
- Both thrive in an acidic environment. Fungi can alter the pH of their environment. *(White, M. W. Metabolism of the malignant cell, the role of bacterial spores, and a pictorial representation to substantiate the latter's presence as an etiological factor in carcinogenesis. 1992. 39. 95-109. Medical Hypothesis.)*
- Both respond favorably to antifungal medications. *(Medical Tribune: Treatment of Fungal Infection Led to Leukemia Remission. Sept. 29, 1999; Mann, D. Antifungal agent lowers PSA levels, study finds. May 1, 1997. Medical Tribune.)*

The truth about radiation and chemotherapy... Can chemo cure me?
Chemotherapy can cure cancer... sometimes. A "cure" is based on whether or not the patient survives after 5 years from the start date of the chemotherapy regimen. There are other reasons that doctors will recommend chemotherapy. One is "palliative." This means that although the chemo will not cure the cancer, it may reduce the tumor size to decrease and relieve pain. Chemo is also used in conjunction with other treatments to combat the cancer. Sometimes, physicians will use chemo as "prevention" for those individuals who are high-risk to developing cancer. So, what's the catch? ...Chemotherapy does have severe side effects, including death, and statistical data showing the benefits of chemotherapy can be misleading. Some of the most common side effects of chemotherapy treatment include compromising your immune system. Chemo decreases your white blood cell count, which can cause you to develop infections quickly. Chemo also decreases your red blood cell count and your platelet count, setting you up for the risk of bleeding. Chemo can also cause other side effects such as nausea, vomiting, hair loss, anorexia, constipation, diarrhea, and numbness/tingling of your arms and legs. Each chemotherapy drug induces a different side effect. For example, one of the drugs commonly used to treat breast cancer, Doxorubicin, can cause permanent damage to your heart. Chemo can also cause neurotoxicity, leading to memory loss, tremors, loss of coordination or even seizures. Some chemotherapy can permanently alter your sexual and reproductive function. And the list goes on... and on... and on.

As stated earlier, both chemotherapy and radiation are very hard on the immune system. Both can actually enhance existing fungal and yeast infections. *(Ueta, E, et al. Increase of Candida cell virulence by anticancer drugs and irradiation. Oral*

Microbiol Immunol. 2001 Aug;16(4):243-9.) Because your immune system is jeopardized, the most important side effect of both chemotherapy and radiation is that both can actually cause cancer. Even if the chemo and/or radiation "cures" the cancer within 5 years, you can develop a secondary cancer as far as 10 to 20 years down the road. Most of the time, the secondary cancer will involve your bone marrow and blood functioning, such as leukemia, or involve your lymphatic system, such as lymphoma. Both of these cancers are generally systemic, affecting multiple organs.

Before deciding if radiation and/or chemotherapy is right for you, be sure to ask your doctor these questions? What are the most common side effects of the therapy? Are any of the side-effects life-threatening? What are the rare side effects of the therapy? (To find a list of the side effects to any chemotherapy or other cancer drug, see the "ACS Guide to Cancer Drugs" at http://www.cancer.org/docroot/CDG/cdg_0.asp. The American Cancer Society provides a complete list of common and rare side effects for cancer drugs.) What will my quality of life be while following this therapy? What is the success rate of the therapy versus another treatment or no treatment at all? How many of your patients survive/benefit from this therapy? Do the benefits outweigh the risks? If this therapy does not work, then what is next? How will this therapy effect my immune system both now and long-term?

What is a clinical trial? How are new drugs discovered in oncology?
The National Cancer Institute examines approximately 40,000 chemicals yearly to discover new agents for testing. Of those 40,000, roughly 25% are selected for preclinical testing, or "pre-human" testing. Approximately 10% of those (1,000) chemicals are tested in phase I "human" clinical trials. The purpose of the clinical trial is to study a new agent or combination of agents by involving human volunteers in a scientific experiment. In this "experiment," researchers seek to evaluate the safety, effectiveness, and toxicities of a new drug or drug combinations in humans. Phase I clinical trials are usually escalating-dose trials in which doses of the test drug get progressively higher as the "experiment" continues. The "goal" is to discover the level at which the drug may be life-threatening, have irreversible effects, or be fatal. Once this level is determined, the drug is tested on different tumor types, then the new drug is compared with existing therapies, followed by completion of post-marketing studies. *(ONS Guidelines for Chemotherapy and Biotherapy Administration. 2001.)*

What are my rights if I decide to get involved in a clinical trial?
As a patient, you have laws that protect your rights should you decide to get involved in a clinical trial.

1. You have the right to know that the study involves research, the purpose of the study/research, the duration of the trial and the procedures involved.
2. You have the right to be informed of foreseeable risks. Know that because the drug is in the "experimental" phase, there may be risks that are unforeseeable, including life-threatening side-effects.
3. You have the right to know other treatment alternatives, including "non-conventional" alternatives.
4. You have the right to confidentiality regarding the study. Your medical history and/or any other information that you give for the purpose of the study is not be disclosed to anyone.

5. You have the right to know if you or your doctor is compensated for your enrollment in the study. Yes, doctors are compensated for enrolling patients in clinical trials.
6. (and the most important right)—Your involvement in the clinical trial is totally voluntary. No one, not even your doctor or nurse, is allowed to force or coerce you into participating in a clinical trial. In fact, involvement in a trial should not be offered by a doctor or nurse unless a patient has received every other known treatment available. Even after every known treatment has been used, a patient is NOT ever required to enroll in a clinical trial.

What about surgery?
Surgery is one of the recommended therapies for cancer therapy. There are always risks associated with surgery; however, if the tumor is operable and can be removed, it is best to have the surgery if you have no other contraindications. If you have a fungal "tumor", or ascomycete (sac) fungus, a biopsy can cause the spores of the fungus to be released into your blood supply, therefore, causing the fungus to spread. If you are not sure if your tumor is cancerous or has a fungal origin, it is best to negate a biopsy and have the complete tumor removed. Always talk with your doctor to see if surgery is a treatment option for you.

The truth about cancer and nutrition... Does my diet really matter?
Although there are varying opinions regarding cancer and nutrition, there are some legitimate studies that confirm that some foods aid in fighting cancer and others "feed" cancer. Starting with the latter, as fore mentioned, sugar fuels cancer and fungi. Anyone battling cancer should avoid sugar, corn syrup and other sweeteners. Other foods that can "fuel" cancer are those that are commonly contaminated with fungal-metabolites, or mycotoxins. The Journal of the American Medical Association in January of 2002 said that certain mycotoxins are "common contaminants" of grains and corn. *(Etzel, R. Mycotoxins. JAMA. Jan 23/30, 2002, Vol. 287, No. 4.)* The article further stated that these "mycotoxins are capable of causing illness and death in humans and animals." For a cancer patient, who already has a weakened immune system, avoiding these foods is essential. Beyond the threat of illness, mycotoxins can actually cause cancer. The American Cancer Society says that exposure to mycotoxins "favors the occurrence of the disease." (*Murphy, et al. American Cancer Society Textbook of Clinical Oncology, 2nd ed. 1995.)* According to the Council for Agricultural Science and Technology, some of the foods that contain these mycotoxins are grains, such as wheat, barley and cereals, alcohol, corn, peanuts, and hard cheeses. Anyone with battling with cancer or other chronic illness could benefit from avoiding mycotoxin-contaminated foods. *(Costantini, Fungalbionics Series. 1998-99.)*

On the contrary, significant research suggests that a diet high in fruits, vegetables, and protein supports the immune system and in fact, "fights" cancer. The American Cancer Society reports that eating fruits, vegetables and having a regular intake of fiber (such as the fiber found in Psyllium Hulls) will prevent and/or fight cancer. There are many fruits and vegetables that contain cancer fighting compounds:

- **Broccoli** – Broccoli contains a substance called sulforaphane. Research shows that the consumption of cruciferous vegetables (such as broccoli and cauliflower) has a protective effect on the development of colorectal cancer. "The proliferation (spread) of colon cancer cells was significantly reduced by sulforaphane and may explain the protective effect of vegetables against

colon cancer." *(Frydoonfar, Mc Grath. "Sulforaphane inhibits growth of colon cancer cell line." Colorectal Dis. 2004 Jan; 6(1):28-31.)*

- **Cabbage** – Cabbage and broccoli contain a compound called Indole-3 carbinol. Research shows that this compound can arrest human breast cancer cells. *(J Nutr. 2003 Jul; 133(7 Suppl):2448S-2455S.)*
- **Tomatoes** – Research published in the Journal of the National Cancer Institute *(Vol. 95, No. 21: 1578-1586)*, found that rats fed tomato powder (including seeds and skins) had less risk of dying from prostate cancer than other rats.
- **Carrots** – Compounds found in carrots, called isocoumarin and falcarinol, are anti-fungal and cut tumors in rats by a third, according to researchers. (http://www.healthfinder.gov/new/newstory.asp?docID=523895. April 2005.)
- **Berries** – Berries contain ellagic acid, which detoxify carcinogens. *(American Cancer Society, Oct. 2002.)*
- **Grapes** – Grape skins and seeds contains proanthocyanidins, which have anti-tumor effects, can inhibit angiogenesis and growth of tumor cells, as well as induce apoptotic cell death. *(Oncol Rep. 2004 Mar;11(3):681-5.)*
- **Oranges, Lemons, Limes** – (contain d-limonene) Research shows that consuming citrus fruits could reduce the risk of mouth, larynx and stomach cancers by up to 50 percent. *(Australia's Commonwealth Scientific and Industrial Research Organization, Dec. 2003.)*

Other than fruits and vegetables, some herbs and spices also fight cancer:

- **Tumeric** -- US researchers have found that curcumin, an active compound found in turmeric, helped stop the spread of breast cancer tumour cells to the lungs in mice. *("Inhibition of Cox-2 expression by dietary curcumin in HT-29 human colon cancer cells." Proceedings of the Am. Assoc. for Cancer Research Annual Meeting 1999;40:528-9.)*
- **Garlic** – Allicin, a component in garlic protects against cancers. *(Benjamin Lau, M.D., Ph.D., Molecular Biotherapy, June 1991;3:103-7)* Studies show that a diet consisting of 2 to 4 percent garlic delayed the growth of breast cancer and reduced the number of tumors. *(Milner, Carcinogenesis. Oct. 1992;13:1847-51.)*
- **Other herbs that fight cancer**: basil, parsley, oregano, black pepper, ginger, mint, onion, rosemary and sage. *(Rockefeller University and the American Dietetic Association.)*

What about "alternative" treatments?

There are many alternative treatments for cancer out there... Some have been researched and proven beneficial to cancer patients... others are simply snake oil promises and money-making schemes. Before deciding on any alternative treatment, the regimen should be fully researched. Make sure that a credible medical journal can vouch for the supplement's claims and/or therapy. The following is a list of supplements researched by credible medical journals. This is not a complete list! This is a partial list. There are many useful supplements and herbal remedies on the market. (You might ask your doctor, nurse, chiropractor, or nutritionist what they recommend.)

Beta-Glucan is a natural, branched polysaccharide, hailed as having powerful and immune-boosting anticancer properties. *(Nutrition Science News, Jan. 2001.)* Beta Glucans have also been found to exhibit potent anti-tumor activity. *(Ishurd, Zfhell,*

"Antitumor activity of beta glucan from Libyan dates" J Med Food, 2004 Summer; 7(2)252-5.)

Shark Cartilage has been shown to have anti-angiogenesis properties according to research performed on mice with carcinoma of the lung. *(Naval Medical Research Inst. Shanghai. 2000:32(1):43-48.)*

Over-the-counter antifungals/antimicrobials such as oil of oregano, garlic, milk thistle, undecalynic acid, malic acid, and pau d'arco. *(Kaufmann, D. The Germ That Causes Cancer, 2002.)*

Always remember: Making positive lifestyle changes such as exercising regularly, eating healthy, and taking supplements will benefit your long-term health. It doesn't take new research to prove this, it takes results!

