

In this issue...



New Cancer Education Center provides patients, public with information about all aspects of cancer.



Meet Jeanne Greenfield, survivor. Her odds of beating cervical cancer were zero.



Researchers find investigational drug more effective than standard treatment for advanced colorectal cancer

Sound nutritional advice when dealing with cancer

By Jacalyn A. See Registered Clinical Dietitian

What is the best diet for a person with cancer?

What should I eat to enhance the effects of my treatment?

Which supplements should I take?

Having treated patients with cancer for more than 20 years, I've been asked these questions many times.

Nutrition is important for a person with cancer. Eating well can help you feel better, maintain

your strength and energy, retain your weight and muscle, tolerate the side effects of treatment, keep a healthy immune system, decrease your chances of infection, and quicken your recovery and healing.

Yet, too often, people with cancer have difficulty eating because of poor appetite, nausea or sore mouth. Further

complicating matters, they often receive nutrition advice from well-meaning relatives and friends, as well as from the media, health food stores and the nutritional supplement industry. Frequently, these recommendations and claims lack scientific proof and may even be harmful. People receiving treatment for cancer have very different nutritional needs from those living cancer-free. The best nutritional advice varies with the person and is based on the different phases of cancer, from active treatment to advanced disease. The primary site of the cancer and the mode of treatment also may impact nutritional needs.

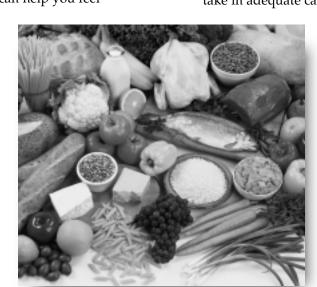
Here are some basic nutritional goals and guidelines:

During active treatment, the main goal is to take in adequate calories and protein to

maintain weight and nutritional stores. The need for calories and protein often increases during treatment. Usual food choices and eating patterns may need to be temporarily changed. Instead of eating a low-fat diet with lots of fruits and vegetables, you may need to eat more cheese, eggs, sauces, oils and margarines.

■ *During the treatment recovery phase,* the nutrition-

al goal is to rebuild muscle strength, regain weight loss and correct problems, such as anemia. You need adequate calories, protein and other nutrients to build up your body.



Together...

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Mayo Clinic Cancer Center is part of Mayo Clinic. It is designated by the National Cancer Institute as a comprehensive cancer center. The mission of the cancer center is to provide compassionate state-of-the-art care for the cancer patient of today and continued advancements in the prevention, diagnosis, treatment and cure of cancer in the future. The programs and services of the cancer center span the three Mayo Clinic campuses in Rochester, Minn., Jacksonville, Fla., and Scottsdale, Ariz.

Together provides educational information for cancer patients treated at Mayo Clinic, their family members, caregivers and friends. Physicians and staff of the cancer center write the articles.

Cancer Education Center Helping patients, family members learn about cancer

Cancer presents many challenges. Helping patients and family members gain knowledge about cancer is the purpose of Mayo Clinic's new Cancer Education Center.

Opened last October, the Cancer Education Center is located in the west lobby of the Gonda Building. It is contained within a 5,500-square foot area designated as the hub of the Mayo Clinic Cancer Center.

As one of the largest cancer resource centers in the country, the education center offers information on topics including prevention, diagnosis, treatment, end-of-life care, nutrition, clinical trials, support, caregiving, alternative and complementary therapies and family cancer issues. Its collection includes brochures, consumer health books, magazines and newsletters, interactive CD-ROMs on specific types of cancers, health education videos, medical journals, medical reference books, children's books and news files. All materials have been reviewed and selected by the cancer center's physicians and staff.

The Cancer Education Center is free and open to everyone. It is open from 8 a.m. to 5 p.m., Monday through Friday.

Study shows new drug effectively targets non-Hodgkin's lymphoma

The first of a new class of drugs involving radioimmunotherapy is benefiting a significant number of people with low-grade B cell non-Hodgkin's lymphoma who have exhausted treatment options, a Mayo Clinic research study indicates.

The study focused on the drug Zevalin, a laboratory-engineered radioimmunotherapy drug. It found that the tumor shrank in 80 percent of patients who received Zevalin. Furthermore, 30 percent of patients receiving Zevalin achieved complete remission, with no evidence of the cancer present.

According to Mayo Clinic hematologist, Thomas Witzig, M.D., Zevalin contains a targeting agent that travels through the bloodstream and delivers radiation precisely to the non-Hodgkin's lymphoma B cells in the human body. It radiates only a 5-millimeter area around the tumor, sparing normal surrounding tissue and organs the effects of the radiation.

"Zevalin is ideal for treating lymphoma because it carries the radiation payload directly to the tumor," says Dr. Witzig. "Chemotherapy goes throughout the whole body, and usually is given as a series of treatments that can go on for four to six months. Sometimes patients need to be in the hospital because of serious side effects. With traditional chemotherapy, patients often lose their hair and experience prolonged fatigue, and sometimes nausea and vomiting. Radiation also can be a successful way to treat lymphoma, but lymphoma is generally is widespread, and we can't radiate the entire body."

Dr. Witzig worked with Gregory Wiseman, M.D., a Mayo Clinic nuclear medicine specialist, on clinical trials that led to the recent FDA approval of Zevalin for treatment of relapsed B cell non-Hodgkin's lymphoma.

"Zevalin is the first of these new radioimmunologic drugs, and these are really positive results," says Dr. Wiseman. "Next, we will look at ways to use Zevalin in combination with other therapies -immunotherapy and chemotherapy."

Staff and services of new Cancer Education Center



The spacious education center, *photo at right*, provides a wide array of information, making it one of the largest cancer resource centers in the country.

A video presentation on the large plasma screen, right, gives patients and visitors an overview of Mayo Clinic Cancer Center and its services and programs in research, clinical treatment and education.



Lynn Hartmann, M.D., forefront in *photo at left*, is Associate Director for Education at Mayo Clinic Cancer Center. The education center's staff includes (clockwise): Amy Deshler, team leader; Susan Rustad, ACS navigator; Janine Kokal, educator; Jill Dowdy, librarian; Cathy Nelson, administrative secretary; Deborah A. Johnson, administrative secretary; Leah Whelan, ACS navigator; Ann Jensen, receptionist; Teresa Mettler, educator; Linda Baltes, receptionist; and Lisa Stephens, outreach coordinator. Not pictured: Kelli Fee-Schroeder, educator.

Navigator Program



The American Cancer Society (ACS) provides two people to work in the education center as ACS navigators. They help cancer patients and family members navigate the abundant resources about cancer for information specific to a patient's particular needs.





Easy-to-operate interactive CD-ROMs, *photo at left*, provide understandable information about cancer.

Jeanne Greenfield



"You might be in the hospital deathly ill with tubes coming out of every orifice of your body, but

there's still a good chance your teenager will call you up and say, 'I need the car, Mom, I have a date tonight'."



"After 4 hours of chemo and 5 hours on the road puking

your guts out, clean, fresh percale sheets feel like heaven."



"People say the dumbest things. *Like, 'You got that curly hair* from chemo?! You're so lucky,

I have to pay for my perms'...Believe me, honey, I paid for it!"



"People like to talk about the important events and accomplishments in their lives. College

football days, new babies, war wounds, promotions, etc. But they don't want to hear about the most important event in your life: battling cancer."



and cisplatin."

"I have a hard time spelling *ibuprofen, but I can spell* methotrexate, vinblastine, adriamycin

When Jeanne Greenfield of Rockford, Ill was diagnosed with cancer of the cervix in 1990, she was told her chance of survival was zero. Now she's living proof that sometimes you can beat the odds. Last March, Jeanne celebrated her 12th anniversary of surviving that diagnosis and prognosis.

A woman of deep faith and quick wit, Jeanne believes that because she was spared, she has been called to do something more with her life.

"God gave me back my life because I believe He wanted me to do something more with it," she says.

Over the past dozen years, Jeanne has defined that "something more" as striving each day to brighten the lives of people dealing with cancer by sharing her story of hope. She does so with one or two individuals, as well as gatherings of a couple hundred people. Her one-liners about hair loss, nausea and heartgripping fear of the unknown make individuals and audiences alike roar with laughter one moment and listen in hushed silence the next.

Last year, she authored a little book of her humorous and provocative

sayings about living with cancer. An example is her guide for living: "Live every day as if it's your last. Because, of course, it might be! But, then again, it might be for everyone else, too. They just don't know it. Statistics show, with or without a placebo, one out of every one person in this world died. No one gets out alive. So, live every day as if it's your last."

Jeanne's encounter with cancer began when she was 38 years old and the mother of three boys, the oldest being 16 at the time. The results of her annual pap test came back abnormal. A couple of weeks later she started hemorrhaging.

Her doctor in Rockford diagnosed the problem as cancer of the cervix and recommended she receive treatment at a cancer center.

"I chose Mayo Clinic because it is one of the best," Jeanne says.

Doctors at Mayo found that the cancer had spread beyond the cervix to her lymph nodes.

"I was in the last stages of cancer," Jeanne says. "I was given a short time to live."

The quotations in the outer margin are reprinted with permission from Jeanne's book, What I Learned From Having Cancer. Jeanne wrote the book for people dealing with cancer "in the hopes that you will know that you are not alone. You are not the only one that feels the way you do. You are not the only one struggling for answers or trying to find balance at a time when nothing makes sense or seems right or even seems real."



Jeanne Greenfield as she looks today.

"My hope was to see my oldest son graduate from high school," she remembers. "I was told I would not. The survival rate at the time of my diagnosis was zero."

Not one to give up despite the grim prognosis, Jeanne talked with her Mayo Clinic oncologist and opted to participate in a research study being conducted at Mayo. The experimental treatment began with intensive chemotherapy, followed by focused external radiation and radioactive seed implants placed next to the tumor in her cervix. The seeds used high-dose radiation. Because the radiation could be aimed right at the tumor, it limited the amount of damage to nearby tissue. The treatment worked. "The doctors said they had never seen tumors melt away like that," Jeanne says. "I've been cancer-free since then."

Along with guiding her to her unique calling of bringing joy, laughter and hope to other people's lives, the cancer experience and other related health concerns also changed Jeanne's outlook on life.

"I find peace and joy in everyday living. Every day is a gift," she says. "Seeing the beauty of nature and hearing a bird sing brings tears to my eyes because 12 years ago I didn't think I'd see another season. Each day is special and I thank God for letting me enjoy it."

Now age 50, Jeanne has seen each of her sons graduate from high school. Plus, she has had the privilege of seeing her oldest son get married and give her two grandchildren.

For Your Information

- What I Learned from Having Cancer, written by Jeanne Greenfield; call 815-282-4648. Email: 1jgreenfield@aol.com
- Women's Cancers How to Prevent Them, How to Treat Them, How to Beat Them, written by Kerry A. McGinn, R.N., N.P., and Pamela J.Haylock, R.N., and published by Hunter House.
- Women and Cancer A Thorough and Compassionate Resource for Patients and Their Families, written by Carolyn D. Runoqicz, M.D., Jeanne A. Petrek, M.D., and Ted Gansler, M.D., and published by the American Cancer Society.

Study shows marijuanaderived drug less effective than standard medication for improving appetite, weight

The marijuana-derived drug, dronabinol, is not as effective as a standard drug, megestrol acetate, for curbing loss of appetite and weight in patients with advanced cancer, according to a study recently conducted by Mayo Clinic and the North Central Cancer Treatment Group (NCCTG).

Seventy-five percent of the patients in the study taking megestrol acetate reported appetite improvement. This compared with only 49



Aminah Jatoi, M.D.

with only 49 percent of patients taking dronabinol reporting appetite improvement. Further, 11 percent of the patients on megestrol acetate, compared with only 3 percent on dronabinol, gained more than 10 percent of their baseline weight.

Loss of appetite and weight is a major problem, affecting more than half of patients with advanced cancer.

"Megestrol acetate is not the complete answer to stimulating appetite and boosting weight in cancer patients and more research needs to be done to find better drugs," says Aminah Jatoi, M.D., a Mayo Clinic oncologist and researcher on the study. "But at this time, we can say that megestrol acetate is more effective than dronabinol in the doses we tested."

The brand name for dronabinol is Marinol[®].

continued from page 1 Sound nutritional advice

- After recovery from treatment, the current cancer prevention guidelines to eat a plant-based diet are appropriate and may help prevent recurrence and secondary cancers.
- In people with advanced cancer, nutrition helps maintain a sense of well being and improves quality of life. Eating should be for enjoyment. Your diet may need to be adapted for poor appetite, taste changes or other eating difficulties.

The following information answers some of the frequently asked questions about nutrition during treatment:

I'm getting all kinds of advice from relatives, neighbors and friends to take supplements. Which supplements should I take?

Food remains the best source of necessary nutrients. Consistent evidence indicates that people who eat a nutrient-rich diet have lower rates of cancer; very weak evidence suggests the same benefit occurs from taking supplements. Further, high doses of some supplements can interfere with the effectiveness of chemotherapy, radiation or prescribed medications.

If you cannot eat enough to meet your nutrient needs, ask your doctor about taking a multivitamin-mineral supplement with no more than 100 percent of the daily recommended value (DV).

I don't care for the taste of meat. How can I get enough protein?



Meat is a main source of protein. The reason why some patients find meat unappealing is not well understood.

It may be due to various factors, including treatment, illness or the cancer itself.

Suggestions from some of my patients to make meat more appetizing include marinating to enhance the flavor or adding it to mixed dishes such as chili, casseroles and soups. Condiments, such as BBQ sauce or soy sauce, also can enhance the flavor. If you just cannot eat meat, include eggs, cheese, nuts, peanut butter, legumes (dried beans and peas), fish and poultry in your diet – all are excellent sources of protein.

I've been following a low-fat, low-cholesterol diet for heart disease. How can I make this diet compatible with my nutritional needs for cancer?

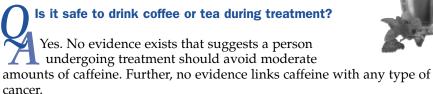
If your appetite is poor and you are struggling to keep your weight up, you may need to eat what appeals to you regardless of fat and cholesterol.

Eggs and cheese are excellent sources of protein. Whole milk has twice as many calories as skim milk, and fat is the most concentrated source of calories. To keep saturated fat intake low, choose vegetable fats such as oil, soft margarine, peanut butter and nuts. These fats have just as many calories as animal fats.

I'm confused about soy. It's supposed to be good for you, but I've also heard that women with breast cancer should not eat soy.

Past research suggested soy might be an effective cancer-fighter. Recent studies show too much soy can stimulate growth of cancer cells in women with breast cancer.

Until more is known about the actual effect of soy on cancer, women who have had or are at high risk for breast cancer should avoid soy supplements and should limit soy foods to a few times a week.



Tea may have advantages over coffee. Not only is tea lower in caffeine, it also contains antioxidants called flavonoids, which may protect against cancer. Both green and black teas contain flavonoids.

A lot of nutritional drinks are promoted these days. How do I know if need one and which one I should use?

Nutritional beverages can be useful if you're struggling to keep your weight up, or if you're having difficulty chewing or swallowing. Several products exist – BoostTM, EnsureTM, NutvenTM, Carnation Instant BreakfastTM and Sport ShakesTM. Most of these beverages contain comparable amounts of protein, calories and other nutrients. Some also come in a "Plus" formula, which contains 100 additional calories. Another option is homemade shakes, malts or floats.

Which nutritional drink you choose is pretty much a matter of taste. Ask a dietitian if you are not sure which product to choose or whether you should use a nutritional beverage.

I have absolutely no interest in eating and when I do eat I get full after a few bites. My family tries so hard to get me to eat. What do you suggest?

Sometimes trying too hard or overzealous encouragement can cause more anxiety and feelings of guilt and become counterproductive. Try these tips:

- If large meals overwhelm you or make you get full quickly, eat several small meals and snacks throughout the day.
- Choose foods containing lots of calories in small portions. This way you can get the calories you need without eating a large quantity of food. Examples: whole milk, margarine, butter, nuts, cheese and peanut butter. You also can increase the calorie density by adding margarine or butter to vegetables and cream or sugar to fruits.
- A nutritional beverage may improve your calorie intake.
- Eat with family and friends. Atmosphere can enhance appetite.
- Ask your doctor for a medication to improve your appetite.

I could eat better if I did not feel nauseated much of the time. How can I get rid of this queasiness?

Illness, treatment or even stress can cause nausea.

These tips might help:

- First, be sure to take the anti-nausea medication prescribed by your physician. If you are vomiting, drink fluids to prevent dehydration. Try to sip fluids between meals to not overfill your stomach.
- After vomiting stops, eat small amounts of food every few hours. Eat mild flavored foods such as toast, rice and crackers. Avoid fatty or rich foods.



For Your Information

These publications and resources provide more information about nutrition for people with cancer:

- The Cancer Survival Cookbook, written by Donna Weikofen, M.S., R.D., and Christina Marino, M.D., M.P.H.; Chroninmed Publishing, 1998.
- Free pamphlets -- Nutrition for the Person with Cancer: A Guide for Patients and Families, call 1-800-ACS-2345, and Eating Hints for Cancer Patients, call 1-800-4-CANCER.
- Organizations and web sites: American Institute for Cancer Research (www.aicr.org); American Dietetic Association (www.eatright.org); American Cancer Society (www.cancer.org) and National Cancer Institute (www.cancer.gov).
- Telephone numbers: American Dietetic Association Consumer Nutrition Hotline 1-800-843-8114, ext. 37, or 1-202-328-7744; American Cancer Society, 1-800-ACS-2345; National Cancer Institute, 1-800-4-CANCER.



Cancer Research Study: New treatment holds promise for patients with advanced colorectal can-

Patients with advanced colorectal cancer who received FOLFOX, a chemotherapy regimen containing the investigational drug oxaliplatin, responded significantly better to treatment, had fewer severe side effects and lived months longer than patients who received the standard IFL treatment (irinotecan/ 5-fluorourocil/leucovorin).

"On our study, 71 percent of patients who received the FOLFOX treatment were alive one year after starting treatment, compared to 58 percent of patients who received the standard IFL therapy," says Richard Goldberg, M.D., a Mayo Clinic medical oncologist and principal investigator for clinical trial N9741.

This phase III clinical trial compared two investigational chemotherapy treatments, both containing oxaliplatin, to the standard IFL treatment for advanced colorectal cancer. The National Cancer Institute (NCI) sponsored the clinical trial. North Central Cancer Treatment Group (NCCTG) and Mayo Clinic led the research effort and coordinated the trial among four other cancer research cooperative groups in the United States and Canada.

The findings were based on analysis of 795 patients from throughout North America who enrolled in the trial between March 1999 and April 2001. All of the patients had been previously diagnosed with advanced colorectal cancer.

The findings indicated that patients who received the FOLFOX treatment:

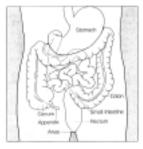
"On our study, 71 percent of patients who received FOLFOX were alive one year after starting treatment..." - Richard M. Goldberg, M.D. Medical Oncologist

- n Lived an average of 18.6 months after beginning treatment, compared to 14.1 months for patients who received the standard IFL treatment.
- Had significant shrinkage of their tumors – 38 percent of patients who received FOLFOX compared to 29 percent of patients who received IFL.
- On average, showed no signs of their cancer worsening for 8.8 months compared to 6.9 months for patients with IFL.
- Experienced fewer side effects commonly associated with chemotherapy, including fewer infections, less diarrhea and vomiting, and did not lose their hair as frequently.

A side effect of the FOLFOX treatment included some patients developing a neuropathy in their fingers. Neuropathy – a feeling of numbness – is unique to oxaliplatin because the drug is aggravated by cold exposure and because the neuropathy goes away when patients stop the treatment.

"The patient benefit seen with the FOLFOX regimen is encouraging; FOLFOX is a promising new option in our armamentarium of treatments for colorectal cancer," says Richard Kaplan, M.D., chief of NCI's Clinical Investigation Branch. Currently, oxaliplatin is available in the United States only for use in clinical trials. The NCI has arranged for the investigational FOLFOX regimen to be available as a treatment option for patients not previously treated with chemotherapy for advanced colorectal cancer.

The FOLFOX treatment will be offered at all NCIdesignated comprehensive and clinical cancer centers and



other select health care institutions across the country. Because oxaliplatin is an investigational drug, the supply is currently limited and patients will be randomly selected to receive it. Before the end of the year, sufficient supplies should be available to treat all patients who are eligible to receive it.

Dr. Goldberg advises patients with advanced colorectal cancer who want more information about FOLFOX to talk with their oncologists.



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