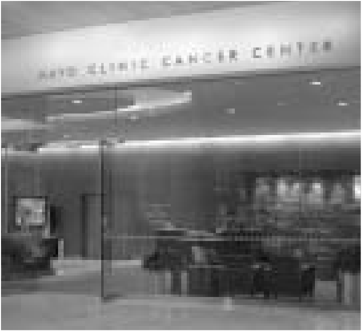
MAYO CLINIC
Cancer Center

Together

SUMMER 2004

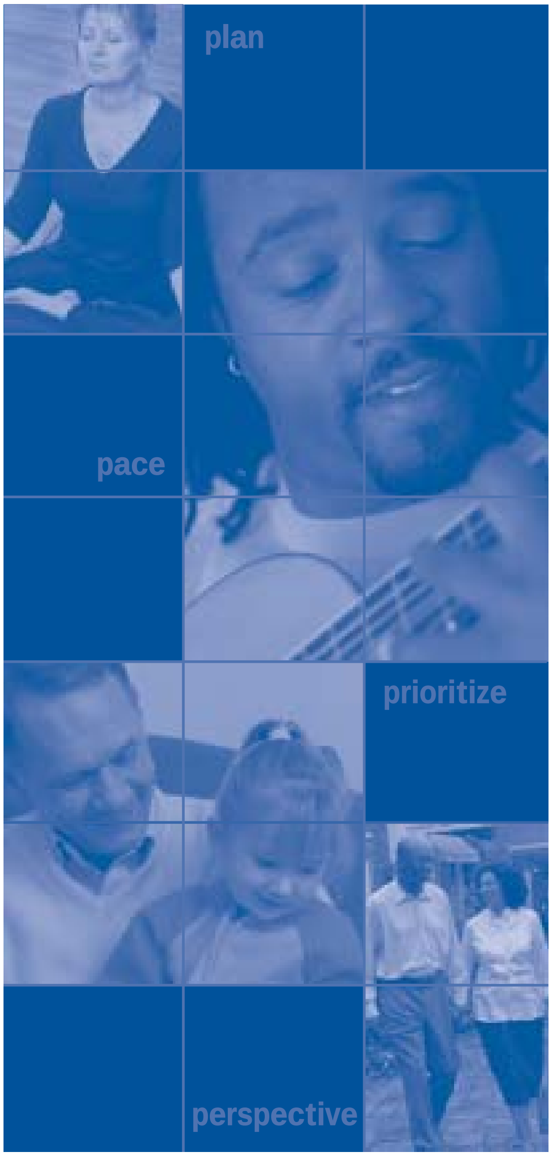
Volume 4 Number 1



Tired of Feeling Tired?

Tips for managing cancer-related fatigue

By Janine Kokal



Fatigue is one of the most common symptoms experienced by patients with cancer. Research suggests that 90 percent of patients receiving treatments for cancer experience symptoms of fatigue. Just as every patient's personal circumstances and cancer treatments are different, the fatigue that is experienced will also be different. While some people may deal with extreme tiredness that interferes with their ability to work or maintain their daily routine, others may experience very little fatigue.

Cancer-related fatigue is different from the fatigue of everyday life, which is usually temporary and often relieved by a good night's sleep. Cancer-related fatigue is an overwhelming sense of exhaustion and persistent feeling of tiredness that can accompany cancer and cancer treatment. It is usually not relieved by rest or sleep.

Symptoms of Fatigue

Patients will often describe their experience with cancer-related fatigue as feeling tired, weak, weary, exhausted, worn out, and having absolutely no energy. They may describe sensations of having "heavy" arms or legs as if they are wearing a lead suit. This can make it difficult to climb stairs, walk short distances, or perform ordinary tasks around the house. Some patients notice that they have more trouble remembering things, concentrating, and thinking clearly. Increased feelings of sadness, irritability, or frustration are common as well.

Possible Causes and Contributing Factors

The exact cause of cancer-related fatigue is not fully known, but we do know that these factors may contribute to the overall fatigue experience:

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Together...

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Mayo Clinic Cancer Center is part of Mayo Clinic. 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, staff and patients of the cancer center write the articles.

Continued from page 1

Tired of feeling tired?

- **Treatment** — Fatigue is common with cancer treatments such as chemotherapy, radiation therapy, biologic therapy, and bone marrow transplant. Cancer treatments cause cancer cells to die. This leads to cellular waste products building up in the body. A large amount of energy is used to rid these waste products from the body and repair damaged tissue. Fatigue caused by cancer treatments typically follows a cyclic or progressive pattern based on the type of treatment being received.
- **Low red blood cells** — Anemia or a low level of red blood cells is another common complication of cancer treatment. Red blood cells carry oxygen to the tissues in the body helping them to function properly. The less oxygen the body has, the less energy it produces. When red blood cells are low, patients can feel tired, weak, short of breath, dizzy, and fatigued.
- **Inadequate nutrition** — Just like a car needs the right kind of fuel to keep it running, our bodies need the right kind of food or "fuel" to work efficiently. Poor appetite, changes in metabolism, difficulty swallowing, nausea, vomiting, diarrhea, and other bowel problems can make it difficult to meet nutritional needs.
- **Sleep problems and inactivity** — Sleep disturbances at night, sleeping a lot during the day, inactivity, and lack of exercise can contribute to feelings of fatigue, sleepiness, and exhaustion.
- **Physical symptoms** — Pain, weakness, fever, chills, infection, weight loss, or shortness of breath can drain energy reserves, further compounding the fatigue experience.
- **Medications** — Pain-relieving medicines, antinausea medicines, antidepressants, sleep aids, and antiseizure medicines cause varying degrees of sleepiness and feelings of fatigue.
- **Changes in roles and routines** — Changes in daily schedules, family roles, and routines add to the stress levels of all members in a household. Practical issues of housework, meal preparation, childcare, work, school, transportation, and finances need to be worked through. This often depletes energy reserves.
- **Anxiety and stress** — Coping with a cancer diagnosis and treatment can leave patients feeling like they are riding an emotional roller coaster. Dealing with fear, worry, anxiety, sadness, and frustration requires the use of a lot of energy.

Awareness of Fatigue

Self-awareness and self-monitoring for feelings of fatigue can give patients important clues as to what may be causing or contributing to their current level of fatigue. Patients can keep a journal and write down daily activities, as well as energy and fatigue levels. Paying close attention to activities that reduce, alleviate, or worsen fatigue can be helpful. Noting the time of day when energy is best can help patients formulate a plan to use that time wisely. Writing down information about fatigue such as if it is constant, intermittent, or occasional, as well as if it is mild, moderate, or severe can help patients understand the pattern of their fatigue. As these patterns of fatigue emerge, patients can communicate these issues with their health care providers and work with them in finding ways to manage it.

Although fatigue can sometimes be difficult to cope with, it can be managed. What works for one person may not for another, it may take a little trial and error. Fatigue caused by cancer treatment is usually temporary and lessens gradually after treatments end, but for some people feelings of fatigue can last for weeks or months. Patients may not reach their prior level of energy, but there are effective strategies that can be used to reduce, alleviate, or adapt to levels of fatigue. Being prepared ahead of time and knowing what to expect can help you adjust to the changes you may experience from your cancer treatments.

Janine Kokal is a master's-prepared registered nurse. She is an educator with the Cancer Education Program at the Mayo Clinic Cancer Center.

Conserve Energy (4 P's)

- **PLAN** for activities that need to be done. Build activity in slow increments and stop to rest frequently before getting too tired.
- **PACE** yourself throughout the day. Pay attention to the time in the day you have the best energy level and use that time to get your most important things done. Sit on a chair in the shower or while cooking to conserve energy.
- **PRIORITIZE** and preschedule your most important activities and rest time. Think of yourself as an **"energy bank."** You have only so much energy in your bank account but demands throughout the day require withdrawals from it. Don't let your account get too low!
- **PERSPECTIVE**: Keep a healthy perspective and don't expect too much of yourself.

Set realistic goals and break down tasks into manageable pieces.

Suggestions to Deal with Cancer-Related Fatigue

- Allow time during the day for short periods of rest earlier in the day so night sleep is not disturbed.
- Talk with your doctor or nurse about a program of regular exercise. Mild to moderate exercise has been found to be helpful in reducing fatigue. (Consider swimming, walking, yoga, etc.)
- Balance rest, sleep, and activity. While sleep and rest are important, don't overdo it. Too much bed rest can decrease your energy level.
- Eat a well-balanced diet and drink plenty of liquids. Your body needs protein, carbohydrates, vitamins, minerals, and water to work efficiently. Meet with a nutritionist or dietitian to find the best plan for you.
- Don't be afraid to ask for help; it makes others feel needed and helps you get things done. For example, neighbors may pick up items for you at the grocery store while doing their own shopping.
- Use relaxation methods to reduce stress (i.e., deep breathing, imagery, meditation, music, art).
- Maintain your social life. Many people eliminate social activities altogether when they are feeling fatigued. Try doing some things that are pleasing to you and that can replenish your spirit and may actually add to your "cup" of energy.
- Work with your health care provider to keep symptoms such as anemia, nausea, and fever under control.

For Your Information

These Web sites and organizations can provide you with more information about cancer-related fatigue:

Web sites:
Cancer Symptoms sponsored by the Oncology Nursing Society
http://www.cancersymptoms.org
Cancer Care www.cancercare.org
People Living with Cancer www.plwc.org
American Cancer Society www.cancer.org

Organizations to contact for print material related to cancer fatigue:
American Cancer Society, 1-800-ACS-2345
National Cancer Institute, 1-800-4Cancer
The Leukemia & Lymphoma Society, 1-800-955-4572

When you are at Mayo Clinic, please visit the Cancer Education Center located in the Gonda Building, main floor, to obtain more information on cancer fatigue.

What You Should Know About Sun Safety

By Mary Burk

Why is sun protection important?

Of the more than one million cases of skin cancer diagnosed yearly in the United States, most are considered to be sun-related. Nearly half of all cancers in the United States are skin cancers. Melanoma, the most serious form of skin cancer, represents only a small percentage of skin cancers, but it accounts for the largest number of skin cancer deaths. Early detection is key to the success of managing skin cancer, but prevention is even better.

In addition to the increased risk of skin cancers, too much sun can cause sunburn, wrinkles, freckles, skin texture change, dilated blood vessels, and rash problems.

Risk factors for skin cancer:

- Unprotected and / or excessive exposure to ultraviolet (UV) radiation
- Fair complexion
- Occupational exposures to coal tar, pitch, creosote, arsenic compounds, or radium
- Family history
- Multiple atypical moles
- Severe sunburns as a child

Prevention or sun safety tips from the American Cancer Society:

- Avoid the sun between 10 a.m. and 4 p.m.
- Seek shade: Look for shade, especially in the middle of the day when the sun's rays are strongest. Practice the shadow rule and teach it to children. If your shadow is shorter than you, the sun's rays are at their strongest.
- Slip on a shirt: Cover up with protective clothing to guard as much skin as possible when you are out in the sun. Choose comfortable clothes made of tightly woven fabrics that you cannot see through when held up to a light.
- Slop on sunscreen: Use sunscreen with a sun protection factor (SPF) of 15 or higher. Apply a generous amount (about a palmful) and reapply after swimming, toweling dry, or perspiring. Use sunscreen even on hazy or overcast days.
- Slap on a hat: Cover your head with a wide-brimmed hat, shading your face, ears, and neck. If you choose a baseball cap, remember to protect your ears and neck with sunscreen.
- Wear sunglasses with 99-100 percent UV absorption to provide optimal protection for the eyes and the surrounding skin.
- Follow these practices to protect your skin even on cloudy or overcast days. UV rays travel through clouds.

Sun Safety Resources:

- **American Academy of Dermatology**
  847-330-0230
  www.aad.org
- **American Cancer Society**
  1-800-ACS-2345
  www.cancer.org
- **Skin Cancer Foundation**
  1-800-SKIN-490
  www.skincancer.org
- **National Council on Skin Cancer Prevention**
  www.skincancerprevention.org
- **Centers for Disease Control and Prevention**
  1-800-311-3435
  www.cdc.gov

Mary Burk is a registered nurse in the Radiation Oncology Division at Mayo Clinic.

Research Update

Phase 3 Study Shows Patients Newly Diagnosed with Multiple Myeloma Have Superior Response to Thal/Dex Drug Combination

Patients newly diagnosed with multiple myeloma, an incurable cancer of the bone marrow, responded significantly better to treatment with the oral drug combination of thalidomide plus dexamethasone (thal / dex), according to findings that were presented June 6 at the 40th annual meeting of the American Society of Clinical Oncology (ASCO) in New Orleans.

"Our study of 207 patients who participated showed that 58 percent of patients who received thal / dex responded to treatment compared to 41 percent of patients who received only dex," says S. Vincent Rajkumar, M.D., a Mayo Clinic hematologist / oncologist who led the study.

"This finding means we can get multiple myeloma under good control with these oral regimens to prepare patients for undergoing stem cell transplantation, a standard treatment for stopping the disease and prolonging patients' lives," says Dr. Rajkumar.

However, because of the higher side effects with thal / dex, Dr. Rajkumar says physicians need to balance the risks and benefits when choosing the initial treatment for patients newly diagnosed with multiple myeloma.

"The promising results of thal / dex and dex negate the need for complex intravenous chemotherapy like VAD (vincristine, adriamycin and dexamethasone) as first line treatment for myeloma," he says. "Instead, oncologists can consider dex alone for low-risk patients and thal / dex for patients with more aggressive disease needing immediate tumor reduction."

This phase 3 clinical study, coordinated by the Eastern Cooperative Oncology Group (ECOG), represents the first randomized trial to report results using thalidomide as a treatment for multiple myeloma.

The patients were randomly assigned to receive either the combination of thal / dex or dex alone. Both drugs were given in pill form.

Response to treatment was defined as a 50 percent or greater decrease in the serum and urine monoclonal M-proteins, which serve as indicators of tumor burden. In patients whose serum M-protein was not measurable, a 90 percent or higher decrease in the urine M-protein was required.

Side effects that physicians should watch for include blood clots, skin rash, fatigue, constipation and sleepiness. Blood clots of a serious nature occurred in 16 percent of patients receiving thal / dex compared to 3 percent of patients treated with dex alone.

"Physicians should consider prescribing blood thinner medications, at least initially, to prevent clots in patients who are beginning therapy with thal / dex for multiple myeloma," says Dr. Rajkumar.

Multiple myeloma accounts for only about 1 percent of all cancers, but is among the most difficult to treat. The cancer occurs most often in people age 65 and older, and more often in African Americans than Caucasians. This year, about 14,000 people in the United States will be diagnosed with multiple myeloma and more than 11,000 patients will die from it. Average survival is about three to four years.

Promising results with treatments such as thal / dex provide hope that survival can be improved. For the past decade, researchers have been studying the anticancer abilities of thalidomide, a drug banned in the 1950s for causing birth defects. The drug's exact mechanism of action in multiple myeloma is still unknown, but researchers have found that the drug effectively decreases the blood supply to cancers. It also boosts the immune system to better fight the cancer. The Food and Drug Administration (FDA) currently approves thalidomide for treatment of erythema nodosum leprosum (ENL); approval for the treatment of multiple myeloma is pending.

Dexamethasone is a steroid drug that has been used for decades as a cornerstone of treatment for multiple myeloma.

DISCLOSURE: This study was funded by the National Cancer Institute and coordinated by the Eastern Cooperative Oncology Group. In addition to Mayo Clinic, researchers at Dana Farber Cancer Institute in Boston, Medical College of Wisconsin in Milwaukee and University of Virginia in Charlottesville were involved in conducting this study.

Dr. S. Vincent Rajkumar is a consultant in the Division of Hematology at Mayo Clinic Rochester and Associate Professor of Medicine at Mayo Clinic College of Medicine.

Bruce Halstead

Bruce Halstead of Rochester, Minn., has fought cancer not once or twice, but four times so far. This is his story, which he has titled "Four Rounds and Still Standing."

SURVIVOR

Four Rounds and Still Standing

I am a 64-year-old retired military officer who has experienced four bouts with various cancers. I would like to share with you my experiences and some of the lessons I have learned.

I retired in 1986 and continued working for several defense contractors that took my wife, Joanne, and I around the world. We have four wonderful, absolutely healthy and normal adult children who surely must wonder where their inherited genes might lead them in their later years.

In the summer of 1995, I was nearing an end of a three-year contract with the Kuwaiti government to clear unexploded ordnances from the desert following the Gulf War. I was in Stockholm to deliver a paper on our experiences in Kuwait and attended a reception for all workshop attendees. I was enjoying a glass of wine after 2½ years of teetotaling in Kuwait when I experienced a severe pain in my lower back. The pain continued throughout the conference and during my trip back to the States for a couple of weeks vacation.

I visited a local doctor soon after arriving on the East Coast. He looked me in the eye, felt the lymph nodes in my neck and immediately referred me to a local oncologist who, after taking samples of a few lymph nodes, concluded I probably had Hodgkin's Disease.

Since we live close to Mayo Clinic Rochester, I opted to return to Minnesota and see if the doctors there agreed with the East Coast doctors.

I was fortunate to see a doctor named William White, who has since retired, but continues to work at the clinic on a part-time basis. I mention his name because he is a true professional who knows his business. Equally important, he cares sincerely for his patients and seems to understand what they go through as he tries valiantly to lead them back to health.

Dr. White gave me the same series of tests I received earlier, but added several CT scans and a bone marrow check before concluding that I was experiencing Stage III Hodgkin's Disease with tumors both above and below the diaphragm. He carefully explained to me the accepted treatment for this cancer that included both chemotherapy and radiation extending over a fairly long period of time. He also suggested I consider a clinical trial called the Stanford V Protocol that shortened the treatment to a three-month period by using new chemicals during the chemotherapy phase of treatment and intensified radiation treatment.

The lower back pain had disappeared, I was feeling pretty good, and by then had developed complete faith and trust in my doctor, so I opted for the clinical trial. One of the chemicals involved that would be injected into my body was derived from mustard gas. I had spent several years during my military career ensuring that all of our stocks of mustard gas had been properly disposed and no longer existed.

Chemo was easily tolerated. One quickly gets used to having IVs started and the drugs themselves did not cause any sickness or discomfort. The reading material available in the clinic offered me a chance to learn as much as I could about what was happening to me. I did lose every hair on my body and it was very uncomfortable sitting in the waiting room with people who seemed a lot sicker than I was. Looking back, Joanne saw the same thing I did, but included me with everyone else. I know now that when I told her I was feeling pretty good, she did not believe me. At the time, I did not realize how tired I was, how depleted my white and red blood cell counts were, and how much incentive I had lost – I thought I felt pretty good. I even drove the 45 miles to and from the clinic.

Earlier, during the diagnosis phase, Dr. White had discovered a small node on my left kidney. I told him that the node had been there for years and had been detected by a multitude of military physicians, none of whom seemed very concerned by it. We decided to watch and observe as my treatment progressed. Sure enough, the node was affected by chemotherapy, leading my team of doctors (which now included Dr. Lieber in Urology) to conclude the node was cancerous. Drs. White and Lieber wasted no time in treatment. In the few days between chemo and radiation treatment, I was dispatched to Methodist Hospital and 15 percent of my cancerous left kidney was immediately removed. I had to receive whole blood transfusions the night before my operation because of low red and white blood cell counts. I was almost totally exhausted, but the sudden seriousness of the cancer required immediate action before it had a chance to spread.

The hospital stay lasted 3-4 days and left me totally exhausted and minus a rib, but with 85 percent of my left kidney still functional. A friend of mine found me walking the halls with the various tubes trailing along and was aghast. He thought he was looking at Old Father Time. Later, I found out just how lucky I was – some doctors would have taken the entire kidney.

Daily trips to Mayo for radiation treatment started a few days later. This time, I had to ask Joanne to drive, even though I argued that I was feeling fine. She was not convinced and continued to disbelieve me when I said things were all right. At the time, I thought it was. Looking back, it was not.

After my treatment ended, I returned for extensive checkups every six months for a few years, then every year until recently when I was told by Dr. White that I was in total remission – a statement that brought great joy to my heart.

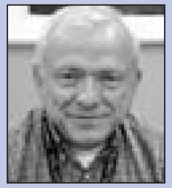
During a recent checkup, however, my PSA reading was elevated. Dr. Lieber ordered a biopsy of my prostate gland and we discovered that I had prostate cancer confined to the prostate gland. After two shots of Lupron to deplete my testosterone levels and thus, stop further development of the cancer, Dr. Lieber and I discussed the options – surgery, internal or external radiation, or simply watchful waiting (the most popular option among European males).

This time, I took advantage of the Mayo Clinic Cancer Education Center located in the lobby of the new Gonda Building. I was afforded the opportunity to learn from many written sources the details of each treatment option, the possible side effects of each, and the relative chances for recovery that each offered. I actively became engaged in learning about the treatment options and chose to receive radiation therapy.

I recently came to an end of 39 daily trips to Desk R and radiation treatment by the members of the "G" radiation treatment suite. I have had no serious side effects and my energy levels, never seriously depleted, have returned to normal.

During my most recent visit with Dr. White, he noticed a few moles on my back that concerned him. A subsequent visit with Mayo's Dermatologists resulted in removal of two cancerous skin growths and two more detected and treated in a follow-up visit. I will probably develop more, but now know to seek immediate treatment.

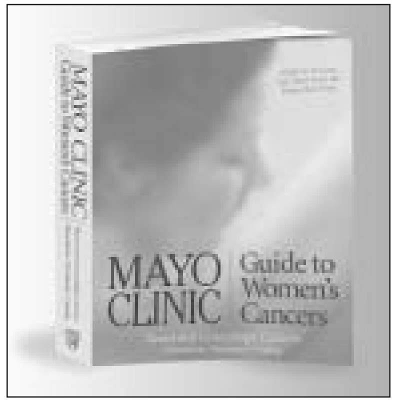
I have had four bouts with cancer – some more intensive than others. I have survived all and know, if more should occur in the future, that I am armed with the knowledge, the technology, and the professionals to help me overcome the disease or, that failing, to understand and accept the consequences. I hope the lessons I have learned will prove helpful to the people who are presently fighting the same battles I have fought with great success.



Suggestions from Bruce for surviving cancer:

1. ***Like your doctors*** – have complete faith and trust in them – or find other doctors.
2. ***Your mate has it tougher than you*** – you know how you feel, your mate can only guess.
3. ***Be an active participant on your care support team*** – learn as much as you can about your disease and the treatments available to you.
4. ***Relax*** – accept your treatment and its possible consequences.

Mayo Clinic Guide to Women's Cancers



Mayo Clinic Guide to Women's Cancers will be available mid-October 2004 at the Mayo Clinic Store on the Mayo Rochester Campus or by calling 507-284-9669. Look for the book to be available in major bookstores in February 2005.

Once the word cancer is spoken,
life stops, or seems to. Things that were once so important no longer are. It can be difficult to know which way to turn for guidance. *Mayo Clinic Guide to Women's Cancers* provides answers and reliable information to help you better understand your or a loved one's cancer.

For the first time, Mayo Clinic has published a book on cancer – a thoughtful, empathic and authoritative reference on cancers primarily affecting women, breast and gynecological cancers. This book provides easy-to-understand information that will help you make informed decisions about your care, and cope with the emotional and physical effects of cancer treatment. It contains many illustrations and graphics to make complex concepts as understandable as possible.

Breast and gynecological cancers share many of the same risk factors and biological foundations, and they can have a similar effect on women emotionally and socially. *Mayo Clinic Guide to Women's Cancers* examines the full spectrum of concerns associated with women's cancers, including possible causes, diagnosis, treatment and recovery.

- **Part one focuses on breast cancer** — risk factors, various screening tests, treatment approaches, breast reconstruction and what to do if the cancer returns.
- **Part two addresses issues that relate to gynecological cancers** — ovarian, fallopian tube, endometrial, uterine sarcomas, cervical and others.
- **Part three discusses how to live with cancer** — fears, emotions, complementary therapies, recovery and healing.

Throughout the book are personal stories of women who have been diagnosed with breast or gynecological cancers. These women share their feelings, advice, fears they faced, decisions they made and details about their lives today. These stories will help reassure you and your loved ones that you are not alone in your journey.

About the editors

LYNN C. HARTMANN, M.D., is a professor of oncology and the Blanche R. and Richard J. Erlanger Professor of Medical Research at Mayo Clinic College of Medicine. In 1992, Dr. Hartmann helped to establish the Women's Cancer Program at Mayo Clinic to promote research and education in breast and gynecologic cancers, and to improve care for women with these cancers. She is also the Associate Director for Education at Mayo Clinic Cancer Center. As a clinician, Dr. Hartmann considers her patients to be her greatest teachers. She has authored more than 100 scientific publications and is presently involved in research studies in women at high risk of breast and ovarian cancer, and studies to identify molecular markers for risk prediction and targeted therapy. Dr. Hartmann is an Associate Editor of the scientific journal *Cancer Research.*

CHARLES L. LOPRINZI, M.D., a professor of oncology at Mayo Clinic College of Medicine, is the past Chair of the Division of Medical Oncology at Mayo Clinic, Rochester, Minn. A distinguished researcher, lecturer and teacher, Dr. Loprinzi has authored more than 200 scientific publications. His primary areas of research involve doctor-patient communication and control of symptoms related to cancer and its treatment. In 2001, he received the Brinker International Award from the Susan B. Komen Breast Cancer Foundation in honor of his contributions to breast cancer research. Dr. Loprinzi is the founding editor of a section of the *Journal of Clinical Oncology*, entitled *The Art of Oncology: When the Tumor is Not the Target*, designed to improve the management of end of life issues and cancer patient communications.

How can I decide?
Tips for making decisions about your treatment

By Mary Amundsen

"I don't know which choice is best."

"I never thought I would have to make decisions about my medical care."

These statements are examples of the reactions many patients have to the decision-making process when anticipating cancer treatment. Gone are the days when the physician charted the course with little input from patient. Now, you are a member of the team planning your care.

Research and results of clinical studies have led to improved diagnosis and treatment of most cancers. This, in turn, gives you more choices, and more individualized treatment options. However, having more options can cause more stress during a time when your stress level has been stretched to the limit.

So, how do you sort it all out, control your anxiety and feel satisfied that, in the long run, you made the best decision for yourself? Here are some suggestions:

- **Learn** about the treatment options available to you and then talk with your doctor or health care provider about the pros and cons of each. Your doctor is the medical expert, but educating yourself about the advantages and disadvantages of each treatment option will increase your knowledge, allow you to have a better conversation with your doctor, and make it easier for you to decide. Often, there is no one right answer, but rather, what will work best in your situation.
- **Rate** the pros and cons of each treatment according to what is important to you. Priorities vary with each person, so although talking to others with a similar situation may be helpful, you have to decide based on your values and priorities. Here are some suggestions:
  - ***Consider the impact*** of each treatment option on your job, your role in the family, your schedule and responsibilities, and also the impact of each treatment on your future choices should the cancer return.
  - ***Think about who else will be affected*** by the decision, such as your spouse or children and ask for their opinions.
  - ***Explore the financial costs*** and insurance coverage; you may need to talk with your insurance company representative.
  - ***Think about where you live*** in relation to the medical center where you will be receiving treatment. This may affect whether you choose to receive daily versus monthly treatments. Also, the cost of transportation and housing will usually need to be paid out of your own pocket.
  - ***Take into account your general health*** status, because other medical problems can affect the outcome of surgery or other treatments.

After you have thought through those concerns, discussing the treatment options with someone who will listen and be supportive without giving advice can be helpful.

The decision-making process takes time. Your involvement in the process will help you be satisfied with the final decision that is made. Ask your doctor about the urgency of the decision-making time you have. If possible, take enough time to comfortably decide about a treatment plan that works for you. Your decision should provide you with peace of mind about your future, rather than a constant worry about a recurrence.

Annette O'Connor, Ph.D., a leading nurse researcher and professor at the University of Ottawa, has studied the decision-making process extensively, and identified factors which determine satisfaction with a decision. These factors include: adequate knowledge, realistic expectations, clear values, freedom from undue pressure, and adequate support and resources.

> *"Ongoing research and clinical trials are poviding more and more choices. Therefore, it is important that patients be informed and aware of treatment options"*
> *-- Mary Amundsen*

Considering these factors when making decisions about your treatment will help decrease your anxiety and ultimately increase your long-term satisfaction. Ongoing research and clinical trials are providing more and more choices. Therefore, it is important that patients be informed and aware of treatment options. Additionally, the emotional recovery after cancer is as important as the physical. Being satisfied and secure with the decisions about treatment will contribute significantly to your emotional adjustment and recovery.

Mary Amundsen is a registered nurse and cancer survivor who works in the Women's Cancer Program at Mayo Clinic.

Q&A

I've been reading that grilling meat causes cancer. Does that mean I have to pass up cookouts?

It's true that chemicals that may promote the growth of cancer can form when meats and other protein foods are grilled at very high temperatures. Although there's no proof that these carcinogens (chemicals linked to cancer) cause cancer in humans, there's plenty of suspicion based on laboratory experiments.

However, prepared correctly, grilled meat can be a healthy, low-fat cooking method, as well as a summertime treat. Since most of these carcinogens form when meat is exposed to very high temperatures or smoke formation, it is important to minimize the food's exposure to smoke and extreme heat. Here are some suggestions for safer grilling:

- To avoid flare-ups, reduce fat dripping on the coals. Use lean meats, chicken with the skin removed or fish. And, just in case, keep a squirt bottle of water nearby to douse flare-ups.
- Reduce exposure to high temperatures. Raise the rack to its highest position. Use a low or medium setting on a gas grill. Try cooking on a perforated sheet of foil, or cook meat in the oven or microwave and finish it on the grill for flavor. Another way to avoid high cooking temperatures is by placing your food on one side of the grill, away from the coals or heat source.
- Marinate meats. This can significantly reduce carcinogen formation.
- Avoid eating charred or burnt meat. Cut off any charred pieces.
- To make your cookout even healthier, throw some vegetables and fruits on the grill.

With a few precautions, cookouts can be a safe and enjoyable part of summer.

Jacalyn See is a registered dietitian at Mayo Clinic who helps patients with cancer maintain good nutrition while undergoing treatment and living with their disease.

Mayo Clinic Cancer Center Invites the Public To Learn about Women's Cancers

Evelyn Lauder *will be the keynote speaker at the all-day educational event that will focus on research, prevention, treatment and coping with breast and gynecologic cancers.*

Evelyn Lauder, Senior Corporate Vice President of The Estée Lauder Companies, and Founder and Chairman of The Breast Cancer Research Foundation, will be the keynote speaker at the annual educational event for the public sponsored by the Women's Cancer Program, Saturday, Oct. 16, at Mayo Clinic.

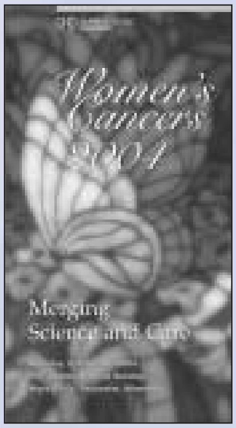
This educational event, *Women's Cancers 2004: Merging Science and Care,* will feature discussions on current topics in cancer treatment, promising research, and coping with cancer and its effects. Women with cancer, their family members and friends, and others interested in learning more about women's cancers are invited to attend.

A reception from 6 to 8 p.m. on Friday, Oct. 15, in the Marriott Hotel Ballroom will provide an opportunity to view informational posters and speak with Mayo Clinic researchers about their work involving women's cancers. The educational conference on Saturday, Oct. 16, 8:15 a.m. to 3:15 p.m., will be in Phillips Hall of the Siebens Building at Mayo Clinic's downtown campus.

Mrs. Lauder will speak about her motivation in raising breast cancer awareness and funds for research, towards a mission of prevention and a cure in our lifetime. From her dual perspective as a corporate executive and charitable organization founder, she will offer insights on how breast cancer research and treatment have advanced over the past decade.

In 1993, aware that breast cancer research was profoundly in need of support, Mrs. Lauder began The Breast Cancer Research Foundation and turned her attention to helping the world's top medical and scientific researchers. Last fall the foundation awarded $14.5 million in grants to premier scientists across the United States and in Great Britain, Spain and Israel. Two Mayo Clinic breast cancer researchers received funding.

In addition to Mrs. Lauder, Mayo Clinic oncology physicians and researchers will give presentations about clinical trials under way to advance the treatment of cancer, new hormonal treatments for breast cancer, promising approaches for diagnosis and treatment of gynecologic cancers, the potential benefits and drawbacks of genetic testing, and new medications and techniques in pain management.



Mayo Clinic oncology nurses, dietitians, chaplains and social workers will lead lunchtime discussion groups on healthy eating, exercise, spirituality, managing lymphedema, effects of cancer treatment on sexuality, and finding credible information about breast cancer.

Tours will be offered of the Cancer Education Center on Gonda lobby level and the Women's Cancer Program on Gonda 10.

For more information about the event, registration and costs, call 507-266-4886.

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MC1604-37rev0804