



CORE Family Studies

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Study telephone
number:
1-800-276-0127



Preventable. Treatable. Beatable!
Founded by the Cancer Research Foundation of America

March is National Colorectal Cancer Awareness Month

Talk to your health care provider about colorectal cancer screening. Colorectal cancer is preventable, treatable, and often curable when detected early.

6 Steps To Lowering Your Risk Of Colorectal Cancer

1. Get regular colorectal cancer screenings beginning at age 50. If you have a personal or family history of colorectal cancer or colorectal polyps, or a personal history of another cancer or inflammatory bowel disease, talk to your doctor about earlier screening.
2. Eat between 25 to 30 grams of fiber each day from fruits, vegetables, whole grain breads and cereals, nuts and beans.
3. Eat a low-fat diet.
4. Eat foods with folate such as leafy green vegetables. A daily multi-vitamin containing 0.4 mg of folic acid may also be helpful.
5. If you use alcohol, drink only in moderation. If you use tobacco, quit. If you don't use tobacco, don't start.
6. Exercise for at least 20 minutes three to four days each week. Moderate exercise such as walking, gardening, or climbing steps may help reduce your risk.

1-877-35-COLON

www.preventcancer.org/colorectal.htm

Greetings!

We are pleased to bring you our fourth edition of CORE News. This is our way of staying in touch with you and informing you about the CORE Studies. We hope you find this newsletter informative, and we always welcome your comments.

March is National Colorectal Cancer Awareness Month—a month devoted to generating a wider awareness about colorectal cancer and encouraging prevention of this disease through regular screening and healthy lifestyles. See inside for more information.

The Hutchinson Center ended the year on an up note when our President and Director, Lee Hartwell, was awarded the **2001 Nobel Prize** in Physiology or Medicine. We are very proud of our newest Nobel Laureate!

Enrollment for the CORE Family Study is nearing completion. However, we have submitted a new grant to the National Cancer Institute to continue our research into the causes of colorectal cancer. We plan to contact many of you to update our study records. The grant will be reviewed for funding in March, so keep your fingers crossed!

Our companion study, CORE Hormones and Health, continues to make steady progress in all areas. This study is the largest ever to investigate the relationships between hormones and colorectal cancer. We hope the results of this research may help women and their physicians better understand the benefits of hormones and hormone postmenopausal replacement.

Thank you again for your continued support. Your contributions are vital to the success of this research in cancer causes and prevention. We couldn't do it without you.

Warmest Regards,



John Potter,
MD, PhD



Polly Newcomb,
PhD



Deb Bowen,
PhD

Genetics 101

The Unity of Life: The Work of Dr. Lee Hartwell

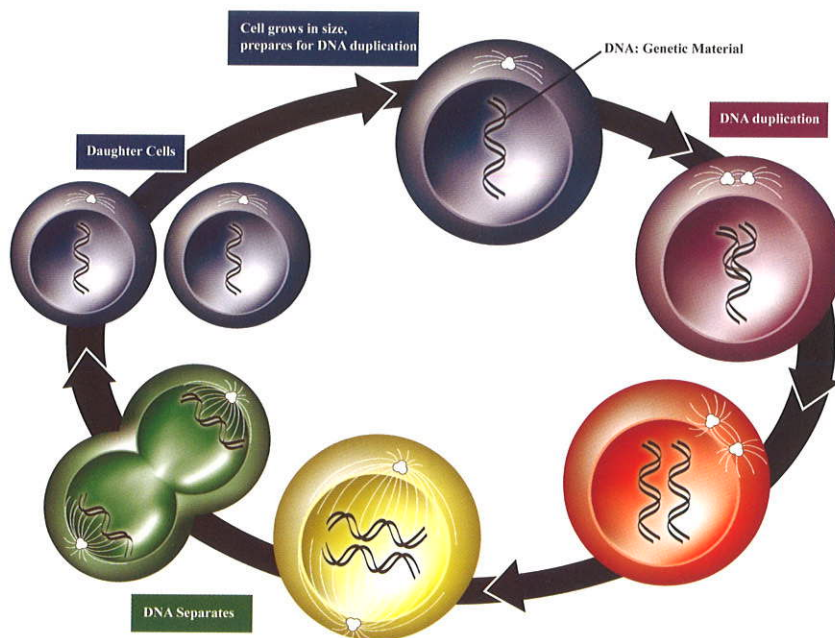
by Barbara Berg, PhD and Kristen Woodwardt

The regulation of cell division—how cells determine when and how to multiply or otherwise develop, and how that process can go awry—is fundamental to understanding how cancer cells mutate. It is also key to developing approaches that predict, prevent or reverse mutation. Lee Hartwell won the 2001 Nobel Prize for physiology or medicine for discovering the universal mechanism and identifying which genes cause cells to divide.

“People just didn’t understand the fundamentals of cell-division regulation until Lee came along,” said Dr. James Roberts, a researcher in the Hutchinson Center’s Basic Sciences Division.

Hartwell started this work more than 30 years ago using simple bakers yeast, *Saccharomyces cerevisiae*, as a model organism. He decided to study yeast cells because they are simpler and easier to manipulate than human cells. In the early days, Hartwell recalled, using yeast as a model was “a fairly risky assumption. We had no confidence that the two would be so similar. We studied yeast because at that time we couldn’t study human cells,” he said.

Scientists now know that yeast is a superb model for studying many basic cellular processes, since its cellular machinery is found in virtually all nucleated organisms. It is also now commonly used to develop novel methods for identifying drugs to use against cancer and other diseases.



The Cell Cycle: In many cancers, cells divide when they should not. Hartwell realized that cancer cells bypass cell-cycle checkpoints, allowing mistakes to be passed on to daughter cells, which results in uncontrolled cell division.

Dr. Hartwell was honored for his work using genetics to understand the cell-division cycle. He discovered that cells undergoing division can respond to DNA damage by temporarily stopping their progression through the cell cycle. This work has led to understanding of tumor-suppressor genes, and how cancer cells may bypass cell-cycle checkpoints.

“Lee’s work is a fundamental contribution to our understanding of how cells divide. He had the insight to realize that genetics could be used to study something as complex as cell division and

demonstrated that simple model organisms are paradigms for our understanding of more complex organisms, including humans,” said Dr. Mark Groudine, director of the Hutchinson Center’s Basic Sciences Division.

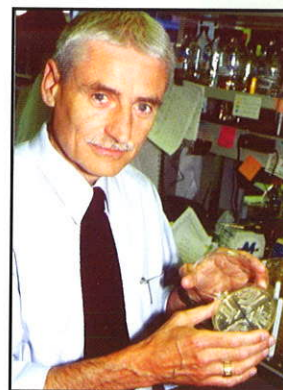
Today, Hartwell’s research interests are focused on the importance of genetic diversity. “As geneticists, we’ve been working with highly inbred organisms in the laboratory so that we can see the contributions of a single gene to a cell or organism’s ability to function,” he said. “But we’ve neglected the diversity of humans. We’re all genetically different, as are all organisms in nature. I’d like to know what that genetic diversity means for an organism.”



News from the Hutchinson Center

**Nobel Prize Awarded to Hutch President & Director
December 10, 2001**

For the second time, a top researcher at the Fred Hutchinson Cancer Research Center has won the Nobel Prize in physiology or medicine. Dr. Lee Hartwell, the Center Director and President won the 2001 Nobel for his work on the regulation of cell division. The Nobel Prize in physiology or medicine is considered the world’s most distinguished honor for outstanding contributions to basic and clinical medical research. This award, in addition to awards in physics, chemistry, peace, and literature, was established by the will of Alfred Nobel, and was first awarded in 1901. Dr. E. Donnall Thomas, then Hutch President, won the Nobel Prize in 1990 for his pioneering work in bone-marrow transplantation for the treatment for leukemia.





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Swedish Medical Center Program: Colorectal Cancer: A Silent Disease

March 5, 2002

Colorectal Cancer is one of the most preventable cancers yet it's the second-most common cause of cancer death in both men and women. Learn about the risks for colorectal cancer, how it develops, and about screening options and guidelines. The program will also cover other common colorectal problems. Admission is free.

Date: Tues., March 5, 2002, 6:30-8:30 pm

Location: Glaser Auditorium (Seattle)

Registration: 206-386-2502



Virginia Mason Medical Center Presents: Edward Leigh—Trauma to Triumph™

March 19, 2002

VMMC proudly presents Edward Leigh for his Seattle presentation of Trauma to Triumph: Coping with the Cancer Experience. Leigh, a nationally-known speaker who battled colon cancer, discusses his experience of what began as a nightmare but ended in victory. Leigh has delivered his message of humor and hope to audiences all over the world. He has been featured on NBC's Today Show and MSNBC. Call to reserve your seat. Admission is free and refreshments will be served.

Date: Tuesday, March 19, 2002, 5:30 pm

Location: Virginia Mason Medical Center
 1201 Terry Avenue, Seattle

Registration: Call 206-583-6059 for information and to reserve your seat



American Cancer Society Presents Colon Cancer: State-of-the-Science Patient Forum

March 27, 2002

The American Cancer Society presents live, via satellite, a 2-hour patient symposium on colon cancer treatment. Intended for colon cancer patients and their caregivers, participants will have opportunities to ask questions of the presenters and local experts. Questions being addressed will include:

- What is state-of-the-science treatment today?
- What developing therapies offer the most hope for advanced colon cancer?
- How do clinical trials work, and how do patients sign up for a clinical trial?

Admission is free. Refreshments will be served.

Date: Wed., March 27, 2002, 12 noon to 2:00 pm

Locations: Edmonds Community College, Lake Washington Vocational Technical College, Seattle Central Community College, Skagit Valley College, Whatcom County Courthouse. Additional locations are being confirmed. Inquire when registering.

Registration: Call 1.800.729.5588 (press 3)

Hope · Progress · Answers • 1.800.ACS.2345 •
<http://www.cancer.org>



Colorectal Cancer Network Presents: 2nd Annual Survivors Conference

April 19-22, 2002

Newport Beach, California

Inform – Empower – Connect

- Meet and hear notable colon and rectal cancer experts, survivors, and advocacy leaders;
- Obtain the most recent information on treatment, side-effect management and coping;
- Connect with other patients and caregivers facing the same issues and needs;
- Learn ways to increase the awareness of colorectal cancer in your community.

Speakers include Dr. Ernestine Hambrick, a colorectal surgeon who now runs a colon cancer prevention organization; Edward Leigh, a colon cancer survivor completing his 12-city Trauma to Triumph tour; Monte Schulz, son of Peanuts creator Charles Schulz who lost his father to colon cancer; Rick Ecalono, an 18-year colon cancer survivor who has survived six separate occurrences; and others.

To receive a conference brochure call 301-879-1500, e-mail ccnetwork@colorectal-cancer.net, or visit <http://www.colorectal-cancer.net/2002conference.htm>



**NCI Launches Redesigned,
One-Stop Cancer Resource
Website—01/22/2002**

The National Cancer Institute (NCI) announced that it has launched its dramatically improved, easy-to-navigate website, Cancer.gov (<http://cancer.gov>), a one-stop resource for cancer information. Cancer.gov provides immediate access to critical information and resources on cancer, helping people with cancer become better informed about their disease and able to play a more active role in their treatment and care.



**New Test Reveals Break-
through in Colorectal Cancer
Detection—01/30/2002**

A new colorectal cancer screening test may detect benign and malignant colorectal tumors earlier than other methods currently available, according to a study published in the January 31, 2002 issue of the New England Journal of Medicine. The test reveals changes in the APC gene, a gene associated with colorectal cancer, according to researchers.

The screening method was discovered by Dr. Bert Vogelstein at Johns Hopkins University, and Drs. Bernard Levin and Stanley R. Hamilton at M.D. Anderson Cancer Center. Expected to be available to the public in three to five years, the test should be one of the simplest colorectal cancer screening tools in existence.



**Washington State
Department of Health
Colorectal Cancer Task Force**

The Washington State Department of Health has organized a task force to increase colorectal cancer screening rates in Washington State. The Task Force includes members from across the state representing colorectal cancer survivors, senior centers, local health jurisdictions, health insurance companies, professional associations, hospitals, cancer research organizations (including CORE Studies), and the state Department of Health.

The Task Force has identified five priority areas:

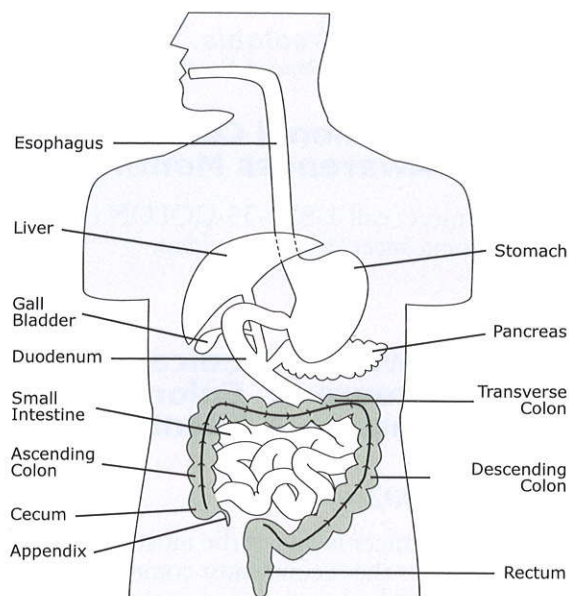
- Conducting screening needs assessment
- Increasing public awareness of screening
- Investigating insurance coverage for screening
- Investigating health provider practices
- Reducing individual & system barriers to screening

For more information about the Task Force, see the Colorectal Cancer Screening web site at www.doh.wa.gov/colorectal.

Frequently Asked Questions

What is the colon?

The colon is also known as the large bowel or large intestine. It is an organ that is part of the digestive system in the human body. The digestive system is the group of organs that allow us to eat and to use this food to fuel our bodies.



What does the colon do?

The colon plays an essential role in how our bodies use the food we eat. Here is how food travels through the body:

1. Food travels from the mouth, through the esophagus into the stomach where it is broken down (digested) into a liquid form by stomach juices and enzymes.
2. This liquid moves into the small intestine, where it is churned with additional juices from the pancreas, liver and gallbladder. Absorption of the carbohydrates, protein, fat, and nutrients takes place nearly entirely in the small intestine.
3. The remaining material then moves into the colon, where 80-90 percent of the remaining fluid is absorbed, reducing the contents from a semifluid to a semisolid mass, which moves to the rectum to be discarded from the body.

Why is the colon important?

A healthy colon will rid your body of its waste and indigestible parts of food (fiber, etc.). Stool is filled with bacteria, so it is important to pass this out of your body. If your colon isn't working the way it should, you may experience problems such as bloating, gas and pain. Healthy eating is good for your overall health, but having a low-calorie, high-fiber diet that includes many fruits and vegetables is important to a healthy colon.

Spotlight: CORE Studies' Graduate Students in Public Health

by Allyson Templeton, MS

The elimination of cancer as a cause of human suffering and death is the mission of the Fred Hutchinson Cancer Research Center. To fulfill this mission, the Hutchinson Center conducts research to improve the prevention and treatment of cancer and related diseases. In addition, the Hutch actively participates in a number of education programs ranging from middle school to postdoctoral programs. For example, in the *Hutch High* program, 350 high-school students a year come to the Hutchinson Center to explore the world of biomedical and cancer research first hand. In the Hutch's SEP (Science Education Partnership) program, Washington State middle and high school teachers receive professional development through hands-on research experience. Hutch faculty also participate in several graduate programs. CORE Studies proudly supports two graduate students in their quest to earn a Ph.D. and begin careers in cancer epidemiology and public health.

Libby Morimoto graduated from Stanford University in 1994, earning a bachelor's degree in Human Biology. She then went to work for the Women's



Health Initiative, a nationwide study coordinated at the Hutchinson Center involving 165,000 women aimed at reducing cancer, heart disease, and osteoporosis, earning a master's degree in Public Health at the University of Washington.

Libby is now working on a Ph.D. in Epidemiology. Her dissertation project will examine the role of genetic variations in insulin-like growth factor metabolizing genes in modifying the relationship between various risk factors (such as obesity and diabetes) and protective factors (such as physical activity and the use hormone replacement therapy) to colorectal cancer risk.

"Through my work with the CORE Familial Registry, I have gained an appreciation for the importance of variations in common genes and how they might affect, or modify the risk of colorectal cancer."



Need cancer answers?

Housed at the Hutchinson Center, the National Cancer Institute's Cancer Information Service (CIS) is the foremost source for the latest and most accurate cancer information available.

To speak with knowledgeable staff who are experienced at explaining medical information in terms the public can easily understand, call CIS between 9 a.m. and 4:30 p.m. local time, Monday through Friday at **1-800-4-CANCER** (1-800-422-6237).

Or visit the Web site at www.cancer.gov.



Han Kim graduated from the University of Michigan in 1991 with a bachelor's degree in Mechanical Engineering. After working briefly for an engineering consulting firm, he became intrigued by the newly formed AmeriCorps program

(the domestic Peace Corps) and decided to give that a try. It was his experience working for an AmeriCorps healthcare clinic for the homeless where he realized his true passion was public health.

Han later earned his master's degree in Public Health from the University of Utah in 1998 and is currently working on his Ph.D. in Epidemiology at the University of Washington. His dissertation project will examine the interactions between genes, sunlight exposure, vitamin D intake, and colorectal cancer risk. After graduating, Han hopes to continue to conduct research in genetic epidemiology and to teach.

"Because of my interest in the environment, I especially appreciate the opportunity to study these exposures in such an important study. I really admire the people who gave their time to this research."



Are you interested in telling your story? If so, we would love to feature you in an upcoming newsletter. Please contact Laurie Lucero (206) 667-5393 to discuss this great opportunity to help others.

Laughter is the Best Medicine

by Allyson Templeton, MS



Mirthful (adj.) 1. Full of gladness and gaiety.

Humor therapy and mirthful laughter have long been suggested as having healing effects. Ever since the best-selling author Norman Cousins made headlines by laughing himself back to health, researchers have been studying the physiological effects of laughter. Here is what they have found.

Laughter:

- Lowers blood pressure;
- Reduces stress hormones;
- Boosts immune function;
- Decreases pain;
- Relaxes your muscles; and
- Produces a general sense of well-being.

In short, laughing is an aerobic activity. A good mirthful belly laugh is equivalent to internal jogging; every system in your body gets a work out—including your respiratory, glandular, skeletal/muscular, and cardiovascular systems. In fact, merely anticipating a funny event can improve your mood. More, humor is contagious and laughter infectious. Make laughter a part of your daily routine, disease prevention and treatment, and pass it on!

Some related books:

- *Anatomy of an Illness as Perceived by the Patient*, by Norman Cousins
- *Laughter the Best Medicine: The Healing Powers of Happiness, Humour and Joy!* by Robert Holden
- *Laughter Therapy: How to Laugh About Everything in Your Life That Isn't Really Funny*, by Annette Goodheart, Ph.D., M.F.T.
- *You Will Never Die Laughing: The Healing Effect of Laughter and Humor on the Mind and Body; Plus, A Collection of Funny Stories to Tickle Your Funnybone*, by Arnold B. Poole

Eating for Good Health

Root vegetables don't have a great reputation, which is really too bad. These hearty veggies are nutritional storehouses when others may be hard to get or climbing in price. Take advantage of their year-round availability to experiment with carrots, turnips, and parsnips, and learn what they have to offer in taste and versatility.



Did you know that the rutabaga (also known as swede) was an accidental vegetable? It's true—they are the result of a chance hybridization between a turnip and a cabbage. Like carrots, they're low in sodium and high in vitamin C.

The flavor of all root vegetables will be enhanced by selecting fresh, firm produce (preferably organically grown) and storing it carefully. Turnips and potatoes should be stored in a cool, dark place out of the refrigerator. The rest of these roots will keep well in the refrigerator for at least a week, so dig deep and dig in.

Roasted Root Vegetables

Ingredients

- 1-2 pounds root vegetables (use potatoes, carrots, parsnips, turnips, rutabagas, beets) peeled and cut into 1-inch pieces
- 1 medium onion, peeled and cut into 1/3-inch wedges
- 2 Tbsp olive oil
- Salt to taste
- 1 head garlic, separated into cloves and peeled
- Herbs or balsamic vinegar (optional)



Directions

1. Heat oven to 400°F. Place the root vegetables and the onion in a roasting pan.
2. Toss the vegetables with the olive oil and salt to taste. Do not crowd the vegetables.
3. Roast the mixture for 45-50 minutes, stirring every 15 minutes until they are tender and evenly browned. After half an hour, scatter the garlic cloves in with the vegetables.
4. Before serving, taste and add seasoning as you desire, such as a sprinkling of fresh chopped herbs or balsamic vinegar.

How can we improve this newsletter?

Comments or suggestions for articles and features to improve our newsletter can be emailed to Allyson Templeton: atemplet@fhcrc.org. We would love to hear from you!

Specialist's Corner: Quality Of Life Is High For Colorectal- Cancer Survivors Who Achieve Long- Term Remission

by Kristen Woodward

Colorectal-cancer patients who are in remission for two to three years following diagnosis tend to have a very high quality of life that is comparable to that of their peers without colon cancer, according to a study by Seattle researchers. The study, published in *Cancer*, also found that among those with successful treatment, quality of life does not appear to be influenced substantially by stage at diagnosis.

Perhaps most notably, having a colostomy appliance does not appear to significantly lower quality of life for those who survive beyond two years, according to principal investigator Scott D. Ramsey, M.D., Ph.D., an assistant member of the Fred Hutchinson Cancer Research Center's Public Health Sciences Division and a University of Washington assistant professor of medicine and health services.

"We think this is because people just get used to having a colostomy and do fine," Ramsey says. "Having a colostomy appliance does not impair their ability to get around or do what they want to do."

Ramsey and colleagues surveyed 173 colorectal-cancer survivors identified through the Cancer Surveillance System, a registry of documented cancer cases for residents of western Washington. The surveillance system is part of the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program.

Study participants ranged in age at diagnosis and disease stage. The average age of the study participants was 70, all of whom had colorectal cancer as their first, or primary, malignancy. Patients represented all stages of colorectal cancer, and time since diagnosis ranged from 13 months to more than five years.

Respondents filled out two self-administered questionnaires: one measuring the quality of life in respect to colorectal cancer, the other measuring quality of life in respect to a variety of chronic health conditions in general.

More than three-quarters of the respondents (77 percent) rated their health as "good to excellent." By comparison, 83 percent of age-matched respondents to a national health and nutrition survey reported their health as good to excellent.

Although quality of life varied considerably in the first two years following diagnosis, average ratings increased substantially and showed little variation after the third year.

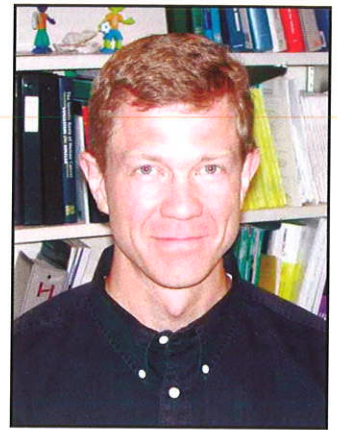


Study Update!

Scott Ramsey,
MD, PhD

Associate Member

Fred Hutchinson Cancer
Research Center



Dr. Ramsey and colleagues will soon be conducting a new project to study genetic testing for colon cancer.

In this study, randomly selected CORE participants will be invited to take part. Those interested in participating will be interviewed about their attitudes and opinions on genetic testing. These interviews will be done in person at the Hutchinson Center by study staff and through a computer program. Ramsey hopes the results of this study will help direct future research and patient care.



On the Web

Want to know more?

<http://www.cancer.gov> — National Cancer Institute

<http://www.scorecec.com> — Eric Davis foundation

<http://www.cancersource.com> — Cancer Source

<http://www.cfr.epi.uci.edu> — Cancer Family Registries

<http://www.ccalliance.org> — Colon Cancer Alliance

<http://www.colorectal-cancer.net> — Colorectal Cancer Network

<http://www.edwardleigh.com> — Edward Leigh, M.A.

<http://www.hereditarycc.org> — Hereditary Colon Cancer Association

<http://cancerpatients.org> — National Association of Cancer Patients

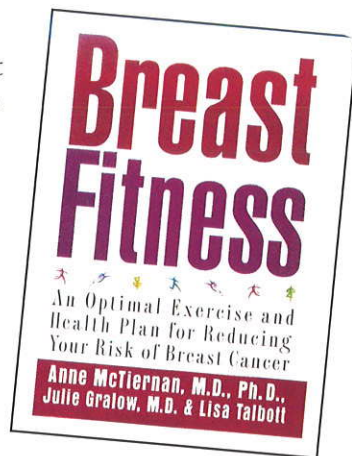
<http://www.nci.nih.gov> — National Cancer Institute

<http://www.preventcancer.org/colorectal> — National Colorectal Cancer Awareness Month

<http://www.nccra.com> — National Colorectal Cancer Research Alliance (NCCRA)

<http://nccn.org> — National Comprehensive Cancer Network

Breast Fitness is a new book that details the connection between exercise and breast cancer risk reduction. Co-authored by breast cancer and exercise specialists Dr. Anne McTiernan from the Fred Hutchinson Cancer Research Center, Dr. Julie Gralow from the University of Washington, and Lisa Talbott from Team Survivor Northwest, **Breast Fitness** describes breast cancer risk factors, explains how to detect early signs of the disease, and provides exercise programs and nutrition information to maximize breast cancer prevention. For more information about **Breast Fitness**, check with your local bookstore or library.



Study Staff

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Where can I get more information about cancer?



You can call the Cancer Information Service at **1-800-4-CANCER** (1-800-422-6237) and they will answer your questions and send you information at your request.

Contact Us



- Did you move? Are you planning to move?
- Did you miss one of our previous newsletters?

Please call the study line at **1-800-276-0127** to keep us updated or to request information at any time.



CORE Family Studies

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Address Service Requested