The choices you make about food, physical activity and weight management can reduce your chances of developing cancer.

- Choose mostly plant foods, limit red meat and avoid processed meat.
- Be physically active every day in any way for 30 minutes or more.
- Aim to be a healthy weight throughout life.

And always remember – do not smoke or chew tobacco.
Getting It Back: Restore Your Health with Physical Activity

Ideally, someone recovering from cancer has a treatment plan that is tailored to his or her unique needs. Growing evidence shows that incorporating regular physical activity into these plans can benefit most cancer survivors.

It may seem like a big challenge: images of fitness often depict sweaty, muscular people wearing the perfect exercise gear. But even taking tiny steps toward moving more helps improve your health – especially if the alternative is staying inactive.

Three things you can do to start feeling better from physical activity include:

1.) **Do very easy movements** for short periods of time **each day**, even just a few minutes. If you can, get started under the guidance of a physical therapist or certified fitness trainer. You’ll find examples of simple exercises on page 7 and where to find more reliable help with physical activity on page 8.

2.) **You may not feel like it** because of fatigue and other side effects like nausea and pain, but becoming physically active can make you feel more energetic. The long-term benefits include bone and muscle strength and improved circulation and mood.

3.) **Talk to your doctor** about beginning a physical activity program.

The Evidence

The AICR expert report found convincing evidence that physical activity helps to **prevent** colorectal, endometrial and postmenopausal breast cancers.

A small but growing number of studies conducted since the report’s publication suggest that physical activity may also help prevent recurrence of certain cancers, while improving patients’ and survivors’ tolerance of cancer treatment and their quality of life after cancer.

This brochure explains why becoming physically active is essential to your healthy recovery and survival. It also tells you what you can do to get started and how to find help to become fit and stay that way. It was reviewed by a panel of physical experts in the field of physical activity and oncology.
How Physical Activity Protects against Cancer

AICR’s expert report and the WCRF/AICR Continuous Update Project – an analysis of results from more than 7,000 studies – determined that physical activity seems to protect against cancer both directly and indirectly.

**Directly**, getting regular activity may:
- reduce your body’s levels of estrogen and other hormones that could promote cancer; and
- reduce inflammation that may cause the kind of cellular damage that makes cancer more likely.

**Indirectly**, physical activity reduces risk of weight gain when combined with a sensible diet. And that’s important because carrying excess fat is itself a risk factor for post-menopausal breast cancer, colorectal cancer, esophageal cancer, endometrial cancer, kidney cancer, pancreatic cancer and probably gallbladder cancer.

Other benefits of physical activity include:
- strengthened muscles, which in turn help strengthen your bones and improve your balance;
- increased flexibility and range of motion;
- increased endurance and improved circulation (by reducing the chance of blood clots that may result from certain medications); and
- decreased risk of heart disease, diabetes and falls.

For years, cancer survivors were advised to get lots of rest. But more and more, oncologists are encouraging their patients to move more throughout – and beyond – recovery.

Getting regular physical activity every day can help you:
- recover more quickly
- have a better quality of life, including getting support from peers and instructors in physical activity classes; and
- improve mood and thinking.

Activities Can Help Reduce Treatment Side Effects

**What do we mean by regular physical activity?** Being active for at least 30 minutes a day is one of AICR’s recommendations for cancer prevention. “Active” can mean doing housework or yard work, walking, jogging, biking, hiking, swimming, weight training or a variety of other movements that fall outside of your regular daily routine.

**Won’t the side effects from my treatment make physical activity too difficult?**

Studies with breast cancer survivors who begin *gentle*, carefully supervised physical activity programs – which may include walking, yoga or stretching – find that they:
- feel less fatigue;
- have less lymphedema (swelling due to lymph node removal or radiation);
improve scar tissue from surgery or radiation therapy by making it more flexible, increasing their range of motion;

• may have reduced joint pain associated with some breast cancer treatment medications (such as aromatase inhibitors).

If you don’t exercise regularly, start slowly with 10 minutes of walking daily and gradually increase to 30 minutes a day of moderately paced walking.

Avoiding Inactivity

The U.S. Health and Human Services’ Physical Activity Guidelines for Americans say that inactivity can increase your risk of developing numerous health conditions – including cancer, diabetes, heart disease and high blood pressure – and advises all adults to avoid inactivity.

AICR’s expert report concludes that sedentary lifestyles can cause weight gain, overweight and obesity, which can promote cancer through inflammation and increased hormone levels. Up to 40 percent of Americans are inactive, according to the Centers for Disease Control and Prevention, meaning they have sedentary jobs, achieve no regular physical activity and are generally inactive around the home and yard.

The good news is:

it’s never too late to begin incorporating physical activities into your daily routine.

Doing something is better than nothing.

How Do I Begin Doing Physical Activity?

1) Check your physical activity plan with your oncologist.

2) Make sure you have exercise shoes that are comfortable and fit you well.

3) Start very slowly – a few minutes of walking or riding a stationary bike each day is a good way to get started.

4) Take short walks in a safe, low-stress environment.

5) If you need encouragement, find a class with a certified fitness instructor, personal trainer or physical therapist who can help you get started. Certified fitness professionals are trained in CPR and first aid and are familiar with exercises that help different parts of the body. They can help you customize activities to your needs. If your insurance does not cover a certified fitness professional or physical therapist, call the local hospital, YMCA or county recreation department to find a class that is very easy and gentle.

6) Start where you are individually, even if it is light exercise that seems like very little. Start by lift-
ing half-pound weights three times a week for the first week or two, and then move up to one-pound weights, 1½ pounds, etc.

8) **As you get stronger,** think about adding more physical activity to your schedule. Think about getting F.I.T.T. Using these four letters, you can remember the key components of a physical activity program: frequency, intensity, time and type.

**Frequency** refers to how often you are physically active and is usually measured in days per week.

**Intensity** describes how hard your body is working during physical activity and often is described as light, moderate or vigorous.

**Time** measures how long you spend being physically active during your daily routine.

**Type** describes what kind of activity you choose, such as walking, gardening, hiking, biking, weight training, household chores or playing golf.

### Where to Find Help

For more information about diet, weight management and cancer prevention and for delicious healthy recipes from AICR's Test Kitchen, visit [www.aicr.org](http://www.aicr.org).

**American Institute for Cancer Research**
1759 R Street, NW, P.O. Box 97167
Washington, DC 20090-7167
1-800-843-8114 or 202-328-7744

Visit [www.aicr.org](http://www.aicr.org) to download these and other brochures:

**Physical activity:**

- *Simple Steps 1: Start Where You Are*
- *Simple Steps 2: Keep It Up*
- *Simple Steps 3: Mix It Up*

**Nutrition:**

- *Nutrition of the Cancer Patient*
- *Nutrition and the Cancer Survivor*
- *The New American Plate*

To order up to 6 individual copies for free, call 1-800-843-8114.

**AICR Nutrition Hotline:** Call 1-800-843-8114 and leave any questions you may have about diet and cancer. A registered dietitian will return your call and discuss your questions free of charge. The hotline is available Monday-Friday, 9 am-5 pm Eastern Time.

**CancerResource®** is a free information package offered for breast, colorectal, lung and prostate cancers. Each package includes a general resource guide and information related to the specific cancer, including treatment options, questions to ask your health-care provider and dietary factors. Call 1-800-843-8114 or visit [www.aicr.org](http://www.aicr.org) to order.

**Food for the Fight DVD**

This two-part DVD for cancer survivors features experts and practical strategies to help patients through diagnosis, treatment and living for good health after cancer. It features advice from experts such as Dr. Mehmet Oz, Dr. Walter Willett of Harvard University and AICR Nutrition Consultant Karen Collins, plus cooking demonstrations and testimonials from patients and survivors on healthy eating and physical activity.

- **Part I: During Treatment** (Running Time 32:14)
- **Part II: After Treatment** (Running Time 24:55)

$14.95 plus shipping.
A Dietitian’s Cancer Story: Information and Inspiration for Recovery and Healing from a Three-Time Cancer Survivor
Diana Dyer, MS, RD
Offers practical, carefully researched nutrition advice and guidelines for evaluating complementary and alternative therapies. Proceeds go to The Diana Dyer Cancer Survivors’ Nutrition and Cancer Research Endowment, which Dyer established at AICR to raise money for research studies relevant to survivor issues.

Each book costs $12.25 plus $4.00 for shipping. To order, call AICR at 1-800-843-8114 or mail a check payable to AICR. When ordering by mail, write to Attn: DCS book.

Additional Resources

To find a trainer certified in cancer exercise, contact:

The American College of Sports Medicine
www.acsm.org
1) select “Certification” in the menu bar;
2) select “Find an ACSM Certified Professional;” and
3) under Certification/Registry Level, choose “ACSM/ACS certified cancer exercise trainer,” then type in the other information requested.
P.O. Box 1440
Indianapolis, IN 46206-1440
Telephone: 317-637-9200 Monday-Friday, 8 am-4:30 pm (Eastern Time)

To find a rehabilitation center or program run by a health professional who has training in treating lymphedema patients, visit:

National Lymphedema Network
www.lymphnet.org
116 New Montgomery Street, Suite 235
San Francisco, CA 94105
1-800-541-3259
locally: 415-908-3681

University of Pennsylvania
www.pennmedicine.org/physical-activity-and-lymphedema

American Physical Therapy Association
www.moveforwarpdt.com
1111 North Fairfax Street
Alexandria, VA 22314-1488
1-800-999-2782

For general information, contact:
America On the Move
www.americathemove.org
An organization founded by physical activity professionals that helps people become active through regular emails with eating and physical activity tips, tools and resources, plus a blog.

Growing Stronger: Strength Training for Older Adults
http://growingstronger.nutrition.tufts.edu/
Developed by Tufts University and the Centers for Disease Control and Prevention, this website provides an exercise program focusing on older adults.

The Walking Site: 10,000 Steps a Day
www.thewalking.com
Tells how to use a pedometer and calculate your steps.

National Institute on Aging, National Institutes of Health
http://nihseniorhealth.gov/exerciseforolderadults/toc.html
Exercise and Physical Activity for Older Adults

Contact your cancer center, yoga centers with certified instructors, tai chi centers, YMCA or county department of recreation to find classes for cancer survivors.
About AICR

The American Institute for Cancer Research (AICR) is the cancer charity that fosters research on the relationship of nutrition, physical activity and weight management to cancer risk, interprets the scientific literature and educates the public about the results. It has contributed more than $95 million for innovative research conducted at universities, hospitals and research centers across the country. AICR has published two landmark reports that interpret the accumulated research in the field and is committed to a process of continuous review. AICR also provides a wide range of educational programs to help millions of Americans learn to make dietary changes for lower cancer risk. Its award-winning New American Plate program is presented in brochures, seminars and on its website, www.aicr.org. AICR is a member of the World Cancer Research Fund International.

You can support AICR’s life-saving research and education in a variety of ways:

• make a donation online at www.aicr.org;
• write to AICR, 1759 R Street, NW, P.O. Box 97167, Washington, DC 20090-7167; or
• include a bequest in your will.

For more information, contact our Gift Planning Department at 1-800-843-8114.

OUR VISION
The American Institute for Cancer Research (AICR) helps people make choices that reduce their chances of developing cancer.

OUR HERITAGE
We were the first cancer charity:
• To create awareness of the relationship between diet and cancer risk
• To focus funding on research into diet and cancer prevention
• To consolidate and interpret global research to create a practical message on cancer prevention

OUR MISSION
Today AICR continues:
• Funding research on the relationship of nutrition, physical activity and weight management to cancer risk
• Interpreting the accumulated scientific literature in the field
• Educating people about choices they can make to reduce the chances of developing cancer

The information in this brochure is based on the AICR Recommendations for Cancer Prevention, developed from the expert report Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective and its continuous updates. The report was produced by AICR and is the largest study of its kind.
AICR Recommendations for Cancer Prevention

1. Be as lean as possible without becoming underweight.
2. Be physically active for at least 30 minutes every day.
3. Avoid sugary drinks. Limit consumption of energy-dense foods (particularly processed foods high in added sugar, or low in fiber, or high in fat).
4. Eat more of a variety of vegetables, fruits, whole grains and legumes such as beans.
5. Limit consumption of red meats (such as beef, pork and lamb) and avoid processed meats.
6. If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day.
7. Limit consumption of salty foods and foods processed with salt (sodium).
8. Don’t use supplements to protect against cancer.

Special Population Recommendations

9. It is best for mothers to breastfeed exclusively for up to 6 months and then add other liquids and foods.
10. After treatment, cancer survivors should follow the recommendations for cancer prevention.

And always remember – do not smoke or chew tobacco.

Editorial Review Committee

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AICR is part of the World Cancer Research Fund global network, which consists of the following charitable organizations: the umbrella association, World Cancer Research Fund International (WCRF International); the American Institute for Cancer Research (AICR); World Cancer Research Fund (WCRF UK); World Cancer Research Fund Netherlands (WCRF NL); World Cancer Research Fund Hong Kong (WCRF HK); and World Cancer Research Fund France (WCRF FR).

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AICR Guidelines for Cancer Prevention

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- Aim to be a healthy weight throughout life.

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AICR Research Grants (partial listing)

- Resistance Training and Physical Functioning in Head and Neck Cancer Patients (RETAIN)
  Laura Rogers, MD, MPH
  Southern Illinois University School of Medicine

- Exercise and Quercetin in Colon Cancer: Role of Macrophages
  Elizabeth Angela Murphy, PhD
  University of South Carolina at Columbia

- The Role of Leisure Physical Activity on Breast Density: a Biomarker Related to Breast Cancer
  Kelley Pettee Gabriel, PhD
  University of Texas at Austin

- Adolescent Diet and Lifestyle Factors and Colorectal Adenoma
  Kana Wu, MD, MPH, PhD
  Harvard School of Public Health

- FRESH START Diet and Exercise Trial among Cancer Survivors
  Wendy Demark-Wahnefried, PhD, RD
  Duke University

- Diet and Exercise Targeting Weight Loss in Public Hospital Breast Cancer Patients
  Rowan Chlebowski, MD, PhD
  University of California at Los Angeles
Surviving Cancer with Physical Activity
American Institute for Cancer Research

www.aicr.org
Cancer Survivor Series