AICR Guidelines for Cancer Prevention

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.
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
Introduction

Americans are living longer than ever. One desire we all share is to feel good and stay healthy so we can live independently and enjoy life.

This brochure can show you how good nutrition and a healthy lifestyle can add vitality to your years and help you reduce the risk of cancer and other diseases.

Prevention Is Possible

The information in this brochure is based on AICR’s Continuous Update Project and expert report, for which an expert panel of scientists reviewed all the available evidence on diet, physical activity and weight management in relation to cancer prevention. These experts concluded that it’s never too late to make changes that can reduce your chances of developing cancer.

Their recommendations can be grouped into three guidelines:

AICR Guidelines for Cancer Prevention

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• Be physically active every day in any way for 30 minutes or more.
• Aim to be a healthy weight throughout life.

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1. How to Stay Healthy
You have the power to improve your health and reduce your risk for cancer and other diseases such as heart disease, type 2 diabetes and osteoporosis. If you already suffer from these diseases, you can still improve your health by making healthy choices.

Focus on Plant-Based Foods
Vegetables, fruits, whole grains and beans should make up at least 2/3 of your plate at each meal. Research now shows that by eating more foods that come from plants and less meat and dairy foods from animals, you can help prevent cancer and heart disease, maintain a healthy weight and promote good digestion.

Plant foods contain substances called “phytochemicals.” These natural compounds can help prevent cell damage that, over time, can lead to cancer. Along with vitamins and minerals, phytochemicals are also important for the health of your bones, heart and brain.

The best way to get these phytochemicals is to eat plenty of vegetables, fruits, whole grains and beans. Aim to eat at least 7 servings of vegetables and fruits per day, which equal about 2 cups of each.

Enjoy a wide variety, too, because plant phytochemicals work together to support good health.

Choose Healthy Protein Foods at Every Meal
Eating enough protein foods is important to maintain muscle mass, which we begin to lose as we get older. But not all of your protein should come from animal foods like fish, poultry, lean meat and dairy foods. For lower cancer risk, try to limit animal-based foods to 1/3 or less of your plate. Then add beans and a moderate amount of nuts.

Low-fat milk can supply protein, calcium, vitamin D and other nutrients that fortify your bones.

If you are lactose intolerant, try calcium-fortified rice milk, almond milk or soy milk. Soy foods can be substituted for dairy items.

Limit Meat to Reduce Cancer Risk
If you eat red meat, try to limit the amount to 18 ounces or less per week. Avoid processed meat except for special occasions. Researchers have found convincing evidence that links colorectal cancer risk to eating too much red meat (beef, lamb and pork). The link with processed meat (such as ham, bacon, sausage and bologna) is even stronger. AICR recommends eating it only occasionally, such as on holidays.
Try these ideas for fitting in more plant foods:

• **Make breakfast count.** Balance a moderate amount of whole fruit and whole grains with protein foods like eggs (maybe with mushrooms, spinach or tomatoes), beans, nut butters or plain, low-fat Greek yogurt.

• **Pack a fruit or veggie snack** for a day’s outing. Bring along dried fruits, like apples, apricots, prunes or raisins. Stash a snack-size can of peaches or pears packed in fruit juice (and a plastic spoon) in your bag.

• **Add vegetables** to soups, sauces and sandwiches. You could put carrots, peppers, broccoli, sliced mushrooms and zucchini in your soup or pasta sauce. Top a baked potato or load pizza with vegetables like tomatoes, onions, green peppers, broccoli and spinach.

• **Choose fruit for dessert.** Top low-fat frozen yogurt or sorbet with sliced fresh or frozen unsweetened strawberries. Have a cored and microwave-baked apple (5 minutes on high) sprinkled with cinnamon and a few raisins.

• **Look beyond the usual.** Try different kinds of melons, mushrooms or greens. Make a fruit salad with mango, papaya or kiwi. Toss together endive, cherry tomatoes and yellow bell peppers. Use leftover veggies in soups, pasta sauce and egg scrambles.

• **Buy frozen and canned vegetables and fruits.** Buy “no-salt-added” canned products or rinse canned veggies and beans to wash off excess sodium. Choose fruit canned in its own unsweetened juice.

• **For easier digestion, lightly steam vegetables.** Use the microwave or steam chopped vegetables over boiling water for 5 minutes or until tender.

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### Choose Mostly Whole Grains

On bread and pasta products, check the Nutrition Facts label and ingredients list on the package to make sure the words “whole-wheat” or “whole grain” are there. (The word “wheat” alone does not mean the product contains whole wheat.)

Other kinds of whole grains may not be labeled as “whole.” They include brown rice, wild rice, oatmeal, quinoa, barley, bulgur and spelt.

### What is fiber?

Fiber is a carbohydrate that helps prevent colorectal cancer. It’s either soluble, which dissolves in water, or insoluble, which doesn’t.

Sources of soluble fiber include oats, barley, beans, fruits and vegetables. Insoluble fiber is found in some fruits and vegetables (such as dark leafy greens and celery), whole grains, seeds and nuts. Both types are important to your health.

### A high-fiber diet:

- slows digestion, so you feel full longer
- lowers blood sugar levels
- lowers blood cholesterol levels
- dilutes harmful substances in the colon
- prevents constipation
- protects the lining of the colon and prevents cancer

Increase plant foods in your diet gradually. Give your body a chance to adjust to more fiber and drink plenty of water. You may want to take a gas-reducing product like the enzyme alpha-galactosidase (i.e., Beano) before meals that contain beans and vegetables.

**Note:** You can relieve constipation by eating more whole-grain foods, fruits and vegetables, consuming more fluids and getting regular physical activ-
How to Stay Healthy

4 Eat Healthy Fats

Eating some healthy fat is important for health and helps your body absorb some important vitamins, like vitamin A from orange vegetables and fruits. Healthy fats, such as olive or canola oils, are your best choices. They are high in monounsaturated fat, low in saturated fat and contain no cholesterol. Omega-3 fatty acids, found in fish like tuna and salmon, are also healthy.

Avoid saturated fat and trans fat. Saturated fat is found mainly in animal products like meat, milk, cheese, eggs, butter and lard. It’s okay to use a half pat of butter in a meal for flavor, but try a teaspoon of olive oil instead.

Look for a soft tub margarine or spread that includes little saturated and no trans fat. Trans fat acts like saturated fat in the body. It may increase the risk of heart disease. Usually, the softer the spread, the less trans fat it will contain. Many saturated and trans fat-free spreads are available.

Fat is high in calories: about 100-124 calories per tablespoon. Instead of eating fried foods, choose foods prepared in low-fat ways like baking, roasting, broiling, sautéing and steaming.

5 Replace Salt with Healthier Flavorings

Americans tend to consume more salt and high-sodium foods than is good for our health. At least 75 percent of the sodium in our diets comes from processed foods such as soups, sauces, processed meats, frozen dinners, chips and crackers. Foods with no salty taste may still be high in sodium.

Too much sodium may worsen high blood pressure and increase the risk of stroke. Diets high in salted foods and foods preserved in salt (like processed meats) can increase the risk for stomach cancer.

Flavor Your Foods Healthfully

To cut down on salt:

- Read food labels and look for low-sodium versions of packaged foods. Fresh foods have less sodium than commercially canned or frozen foods. When you buy canned food, choose reduced sodium or no-salt versions.
- Flavor your foods with herbs, spices, lemon juice, tomato salsa, flavored vinegars and mustard.

The senses of taste and smell decline with age. Medications can also affect how food tastes. Food can start to lose its flavor and appeal. To give foods a flavor boost:

- **Vary the texture and temperatures.** Top low-fat yogurt with crunchy cereal. Enjoy a cool fruit salad following a spicy Mexican burrito.
- **Intensify the flavor.** Use seasonings, spices and herbs instead of salt and fat for flavor. Herbs and spices contain health-protective phytochemicals. To start, use $\frac{1}{4}$ teaspoon dried herbs for each serving, then increase as desired.
- **Use color.** Add red and yellow pepper strips to a mixed green salad; sprinkle red paprika on white fish; create a rainbow fruit salad with red and green grapes, honeydew and cantaloupe chunks, strawberries and blueberries.
6 Limit Alcohol

Despite some evidence that links moderate consumption of alcohol with lower risk for heart disease, evidence shows that drinking alcohol is a cause of cancers of the mouth, pharynx, larynx, esophagus, breast and colorectum.

Drinking alcohol also can impair judgment and physical balance, which can lead to accidents and injury. Alcohol can interfere with the effectiveness of some medications, too.

AICR recommends avoiding alcohol for cancer prevention. If you decide to drink, limit alcoholic beverages to no more than two drinks a day for men and one for women. (One standard drink equals 12 ounces of regular beer, 5 ounces of wine, 1.5 ounces of 80-proof liquor or 1 ounce of 100-proof liquor.) Avoid alcohol if you use a blood-thinning medication.

7 Use Supplements Wisely

Dietary supplements cannot replace a healthy diet and should not be used to prevent cancer. But some people may have difficulty meeting their nutrient needs through diet alone.

Supplements of the following nutrients are often recommended for older people. Check with your healthcare provider about the safe use of any dietary supplements you are thinking of taking.

**Vitamin B12** fortified foods or vitamin B12 supplements are encouraged for some people over age 50 because of problems with absorption that occur with aging. Vegans (who consume no animal foods at all) should consume vitamin B12 from supplements and/or fortified foods.

Adequate **vitamin D** is difficult to obtain from foods alone. Sunlight as a source of vitamin D is generally not recommended because of concern about skin cancer. You may need a supplement to get the recommended 600 IU per day (for people age 50-70) years and 800 IU per day (for those over age 70).

Getting enough **calcium** from foods alone is also difficult, especially if you don’t eat dairy products. You may need calcium-fortified foods and/or calcium supplements to get the recommended 1,000 mg per day (for men age 50-70) to 1,200 mg per day (for men age 70 and older and women age 51 and older). Count all your sources of calcium, including dairy foods, antacids and supplements so you don’t get too much.

Whether or not you decide to take a supplement, the most important thing is to eat a healthy, balanced diet that includes a wide variety of vegetables and fruits every day to get vitamins, minerals, fiber and phytochemicals that help protect your health.

8 Common Drug Interactions

Keep your doctor and pharmacist informed of all the over-the-counter and prescription drugs you take and any supplements you are using. Ask about interactions between these substances and food or alcohol. Take medications only as directed and adhere to any warnings found on the label.

If you’re unable to read the drug name or understand the instructions on the label, ask for assistance or a copy with larger size type.

**Common interactions between drugs and foods include:**

- Grapefruit juice (but not other citrus juices) changes the way the body processes some
Store and Prepare Food Safely

With increased age comes higher risk for food-borne illness. This may be due to an aging immune system or an existing health problem. For some, poor eyesight and difficulty cleaning the kitchen may add to this risk.

**You can take a few simple precautions to avoid food-borne illness:**

**Refrigerate promptly.**
- Make sure your refrigerator temperature stays below 40° F. Use a refrigerator thermometer to check the temperature or keep it as cold as possible without freezing milk.
- Don't allow perishable foods to sit at room temperature for more than two hours or more than one hour in hot weather. Store groceries or leftovers quickly in the refrigerator or freezer.
- Thaw frozen foods by a safe method: in the refrigerator, in the microwave or in a cold water bath in which the water is changed every 30 minutes. Thawing frozen foods on the kitchen counter is not safe.
- When refrigerating leftovers, mark the date and use them within one to two days. Food may look or smell fine, yet still not be safe to eat. If in doubt, throw the food out.

**Separate, don't cross-contaminate.**
- Keep raw meats away from other foods and use different cutting boards for chopping vegetables and meats. Once meat is cooked, don't place it back on uncleaned surfaces that were used when the meat was raw.
- Wash cutting boards with hot, soapy water, then sanitize by putting through the dish washer or rinse in a solution of one teaspoon chlorine bleach and one quart water.

**Wash your hands and surfaces frequently during food preparation.**
- Change kitchen towels and sponges often.
- Keep counters clean and regularly wipe down drawers, doors and refrigerator handles.

**Cook to proper temperature.**
- Buy and use a food thermometer to be sure your foods are cooked fully and safely.
- Fully cook eggs until yolks are no longer runny. Don't use recipes that call for raw eggs, such as Caesar salad dressing.
- If you need it, be sure to ask for help with cooking or cleaning up.
- Be sure to read expiration dates on food labels carefully and notice visible food spoilage.

**Here are internal temperatures at which different foods are safely cooked:**
- All ground meats: 160° F
- Beef and lamb steaks and roasts: 145° F
- Pork: 160° F
- Whole poultry and thighs: 165° F
- Poultry breasts: 165° F
- Most seafood and fish: 145° F
- Egg dishes or casseroles with eggs: 160° F

(Source: www.fsis.usda.gov)

A digital thermometer can read the temperature of a food in only 10 seconds. Look for digital thermometers in kitchen stores and supermarkets.
II. Keep Your Weight in Balance

Carrying extra pounds can slow you down and increase your chances of developing cancer, heart disease, diabetes, high blood pressure and joint problems.

Eating too many calories and not being physically active enough can lead to weight gain, which itself increases the risk of colorectal, endometrial, post-menopausal breast, pancreatic, kidney and esophageal cancers. Obesity also heightens risk for heart disease, type 2 diabetes and high blood pressure.

Certain foods have more calories ounce-for-ounce than other foods. For example, 3.5 ounces of milk chocolate have 520 calories, but a 5-ounce apple has 52 calories. The apple is low in calorie density.

The good news is, if you eat mostly low-calorie-dense foods like vegetables, fruits and beans prepared and served in low-fat ways, you’ll find it much easier to manage your weight.

Beware of low-calorie or low-fat foods that contain mostly salt (sodium) and artificial ingredients. Fat-free or “100-calorie” snacks, for example, are low in nutrients and highly processed.

Did you know...?

As you get older, your body may need fewer calories to maintain its weight. But sudden or unexpected weight gain may indicate a serious medical condition such as heart disease. Unintentional weight loss can lead to bone or muscle loss and inadequate nutrition.

Ask your health-care provider to help you find your healthiest weight.

To help you reach a healthy weight:

• Stock up on healthy foods. Stock your fridge and cupboards with vegetables, fruits, whole grains and beans. Keep higher-calorie treats out of sight or, better yet, out of the house.

• Pay attention to portion sizes. Eating too much of anything – even low-fat or fat-free foods – can affect your weight. Check serving size information on the Nutrition Facts panel of food packages. Get out your measuring cups and see what one portion looks like on a plate and in a bowl or glass. This will give you an accurate idea of how much you are eating.
• Go for nonstarchy vegetables. Exchange white potatoes for a rainbow of colorful vegetables like spinach, broccoli, carrots, bell peppers and cabbage.

• Eat healthy fats in moderation. Even healthy fats are high in calories. Also, low-fat or fat-free products may contain added sugar and/or salt. Read the nutrition labels of the foods you choose. If you eat meat, make sure it’s lean.

• Stick to low-calorie fluids. Enjoy a glass of reduced-sodium tomato juice or cup of broth-based soup before your meal. It may help you eat fewer calories during the rest of the meal. Aim for 6–8 glasses of water daily, depending on your body size. Vegetables and fruits also have a high water content.

• Enjoy what you eat. Eat slowly and savor every bite. Eating healthfully can please not only your palate but also delight your eye with colors and your sense of smell with fragrances.

• Keep active to help burn calories and stay healthy.

III. Be Physically Active

It’s never too late to reap the benefits of physical activity. Studies show that people can increase strength and independence with strength training and balance exercises at any age.

Muscle mass and strength decline more rapidly as people age. That’s why it’s best to try a combination of strength training exercises for 20–30 minutes three times a week and aerobic exercise like walking, which raises your heart rate, at least 30 minutes per day.

Why exercise? Physical activity at any age:

• burns calories
• increases your energy level
• helps relieve stress and depression
• helps you sleep better
• improves your strength, flexibility and balance
• makes you feel better overall

Research shows that regular physical activity helps prevent colon cancer and possibly post-menopausal breast and endometrial cancers. Because physical activity can help to prevent weight gain or aid in weight loss, it may also help protect against risk of cancers linked with being overweight or obese. Being active also helps prevent heart disease, type 2 diabetes and osteoporosis.

Find activities that you can do safely and enjoy. For example:

• If hiking is too difficult, perhaps walking, swimming or stationary bicycling would be a better fit.
• Try yoga or gentle stretching exercises to help you maintain flexibility, prevent injury and relieve stress.
• Adding some weight training can help increase strength, speed up metabolism and may even ease arthritis pain.
• Exercising with a friend or in a group can make your workout a social event that you look forward to each day.

Most important is sticking with it. AICR recommends aiming for 30 minutes of moderate activity every day to prevent cancer.

If exercise is new to you, start slowly for safety reasons. Try for a total of 10, 15 or 20 minutes a day and work up from there. You can divide it up throughout the day – 10 minutes here and 10 minutes there – and still reap benefits. Start where you are and gradually aim for more.

As your fitness improves, aim for at least 60 minutes of moderate activity or 30 minutes of vigorous activity each day.

Seek support, build on your successes and enjoy the benefits you’ll receive from doing positive things for your health.

**IV. Eliminate Tobacco**

Don’t smoke or use tobacco in any form. It is the main cause of lung cancer and also contributes to cancers of the mouth, throat, pancreas, cervix and bladder. Even if you’re a long-time smoker, you can still benefit from quitting.
Chapter 5 of 2008 *Physical Activity Guidelines for Americans* has specific information for older adults.

**Jewish Community Center Association**  
212-532-4949  
www.jcca.org

**National Institute on Aging Information Center**  
1-800-222-2225 or TTY 1-800-222-4225  
www.nia.nih.gov  
NIA offers consumer-oriented information on eating, physical activities and a wide range of other topics important to older people and their families as well as a description of their research program.  
http://nihseniorhealth.gov/exerciseforolderadults/toc.html  
Print publication: *Exercise and Activity for Older Adults*

**NIH SeniorHealth**  
www.nihseniorhealth.gov  
A service from the National Institute on Aging and the National Library of Medicine, this website is organized by health topics with background information, videos, short quizzes and frequently asked questions.

**Tufts University’s Growing Stronger Program for Older Adults**  
www.nutrition.tufts.edu/growingstronger/

**U.S. Centers for Disease Control and Prevention**  
1-800-CDC-INFO (800-232-4636)  
www.cdc.gov/physicalactivity  
The CDC website features free instructive videos on weight lifting and strength training for older adults.

**YMCA**  
1-800-USA-YMCA (1-800-872-9622)  
www.ymca.net
To find programs near you, contact:
Your local county Office on Aging (Check the
government pages in your telephone book under
your county’s name.)

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 two for
men and one 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 six 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.

About AICR

The American Institute for Cancer Research
(AICR) is the cancer charity that fosters cancer
prevention and survivorship through healthy diets,
physical activity and body weight. About one-
third of the most common cancers could be pre-
vented this way. By raising awareness of this mes-
sage, we hope that many thousands of lives will
be saved. The education and research programs
of AICR are funded almost entirely by donations
from the public.

We fund cutting edge cancer research and help
people make choices that reduce their chances of
developing cancer. We are part of a global network
of charities that are committed to preventing
cancer.

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

How You Can Help

You can support AICR’s life-saving research and
education efforts 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.

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