



AMERICAN INSTITUTE for  
CANCER RESEARCH™

# AICR

## the newsletter

SUMMER 2014 | ISSUE 124 | [www.aicr.org](http://www.aicr.org)



**Stock Your  
Pantry**  
for Cancer  
Prevention >3

**3 Great  
New American  
Plate** Salads >6

**New Findings  
on Ovarian  
Cancer** >8

**Get Stronger  
Arms and  
Shoulders** >10



LOOK INSIDE FOR

**FREE**

BROCHURES AND  
THE LATEST ON  
CANCER RESEARCH



from the editor

Taking small steps to eat healthy foods and be physically active can make a big difference. This issue helps you toss together delicious salads and choose basic pantry items that fit into our cancer-preventive eating plan, The New American Plate.

You'll also read about important new findings on ovarian cancer from our Continuous Update Project, plus easy arm and shoulder exercises.

Special thanks to all of our supporters who have made contributions through AICR's Cancer Fighters Annuity Program. To find out more about charitable gift annuities and how they can benefit you, please call our Office of Gift

Planning at 1-800-843-8114.

You can also read more about gift annuities on page 9.

Marilyn Senter

## Free Publications from AICR

### MARILYN'S CHOICE



**Beans and Whole Grains: The New American Plate (BWG)** Eating fiber-rich beans and whole grains is important for cancer prevention. This brochure describes their variety and offers tested recipes.

### New American Plate Jar Gripper (NJG)

Twist off jar and bottle tops easily with this handy rubber health aid.

**FREE MATERIALS!**  
SUMMER 2014

**LIMITED QUANTITIES!**



**Reach Your Healthy Weight for Life (SL)** Learn safe, science-based ways to reach a body weight that is healthy for you and reduce your cancer risk.

### Fighting Cancer With An Annuity (FCAP)

Our free booklet describes how a charitable gift of money or stock to AICR can pay you a guaranteed annuity income for life.



### AICR Resistance Band (EXB)

This lightweight rubber band is printed with exercises designed to help strengthen your muscles.



### Thoughtful Planning for Health Care Decisions (HCD)

This free brochure provides helpful guidance as you make decisions about health care choices, including living wills, durable power of attorney and advance directives.



**ORDER TODAY.** These free materials help you put AICR's science-based advice to work every day in making healthier choices. Your support makes AICR's life-saving research and education possible, so any gift will be greatly appreciated.

- 1 Fill out the enclosed Free Information Request card.
- 2 Return it in the envelope provided to: AICR, 1759 R Street, NW, P.O. Box 97167, Washington, DC 20090-7167.
- 3 You should receive your publications within a few weeks.



# Simple Staples Help You Eat Healthy Meals

**Keeping a strategic stock of healthy cancer-preventive foods in your cupboard can give new meaning to the phrase “fast food.”**

**WHEN YOU WANT A LIGHT MEAL** but don't feel like cooking or going out, having a stock of nutritious and low-cost basics can satisfy you and fit a plan to eat for cancer prevention. Just follow AICR's New American Plate model when choosing what foods to keep on hand.

Stock 2/3 of your kitchen shelves with plant-based fixings like:

- vegetables and fruits (dried, canned or frozen)
- dried beans (canned and bagged)
- whole grains (brown rice, whole-wheat pasta and crackers, oatmeal, polenta, quinoa or whole-wheat couscous)
- nuts (unsalted) and nut butters

Devote the remaining 1/3 of your space to canned poultry and fish and dairy products such as boxed, canned and powdered nonfat milk.

Dried herbs and spices can add salt-free flavor. To reduce the amount of salt you get from canned vegetables and beans, choose the no-salt-added kinds or rinse them in a strainer and drain before adding to a dish.

## Storing Can Be a Snap

Place the oldest items in front to use first and newly purchased prod-

ucts behind. Every few months, use up the oldest and then replace them.

Group your foods into categories to find them easily. For example, canned and jarred items, vegetables, fruits and beans together; condiments like vinegars and pasta sauce; and boxes and bags of whole grains like pasta and brown rice. This also helps you scan your inventory easily to see what needs restocking.

Here are ideas for fast-fixing meals:

**SUPER CEREAL.** Start with a plain whole-grain cereal like oatmeal or a low-sugar whole-grain cereal, like oat circles. Then add your own flavor combinations with chopped dried apples or applesauce and cinnamon or a mixture of dried fruit and dry roasted nuts. Hot cereals can be savory instead of sweet: mix chopped spinach and a teaspoon of Parmesan cheese into hot cooked barley, bulgur or even oatmeal for a warm treat.

**“HOMEMADE” SOUP.** Soup is an ideal place to add healthy vegetables and dried beans for more nutrients and fiber. Add canned or frozen vegetables of your choice, cooked grains like rice or pasta and canned

or leftover cut-up chicken to fat-free reduced-sodium broth. Top with a pinch of Parmesan cheese before serving.

**FREE-STYLE SANDWICH.** Build a healthy sandwich on whole-wheat bread. Use low-fat cheese slices or drained tuna, salmon or sardines. Top with canned mushrooms, jarred roasted red peppers, sundried tomatoes without oil or water-packed artichoke hearts. Try mustard or a thin spread of hummus on your bread.

**EASY SALAD SUPPERS.** Salads don't have to use fresh greens. You can toss together canned kidney beans, frozen mixed vegetables and a spoonful of jarred salsa. Or drizzle French dressing over cooked brown rice, canned whole mushrooms and baby corn and frozen peas and carrots with canned chicken or salmon. (For more healthy salad ideas, see page 7.)



**FREE OFFER**

Our handy New American Plate Jar Gripper can help you twist off jar and bottle tops easily. To order this free health aid, check box 1 on the Free Information Request card.



# Exercising for Recovery

**Exercise might be the last thing on your mind after a cancer diagnosis. But a good fitness program will help you build strength and may improve recovery.**



**PHYSICAL ACTIVITY** tailored to cancer survivors is a fairly new specialty. For survivors who may live far from cancer-trained instructors, some new resources are becoming available.

## Exercises for Cancer Survivors Book

Carol Michaels, an ACSM/ACS certified Cancer Exercise Trainer®, has compiled a new book of gentle exercises for survivors. The paperback is based on her program, *Recovery Fitness*®, which draws upon her 17 years of experience helping cancer survivors.



Carol Michaels,  
ACSM/ACS

“Having cancer treatment affects your whole body,” Carol says. Her program is offered at several New Jersey hospitals as well as her own studio. Endorsed by oncologists and surgeons, *Exercises for Cancer Survivors* aims to help with specific side effects from chemotherapy, surgery and radiation therapy.

“You can use the exercises at times when you are feeling less fatigued and instead of going to a class or fitness center,” she points out. People can bring the book to their health-care provider, who can help them choose which move-

ments to practice first.

Carol says breathing slowly and fully during the stretches may help to improve the flexibility in your chest and shoulder muscles. It may also help lessen anxiety and stress.

After radiation and surgery, Carol says she often sees “protective posturing” where patients tense muscles and try to protect a sore area. This can throw a person off balance and create muscle spasms. To improve your range of motion, she advises easing into very gentle stretches, such as arm raises, as best you can a little each day.

More than 60 exercises for stretching, strength training, posture and balance are included in the book, along with photos demonstrating them. To find out more about the book, visit [www.carolmichaelsfitness.com](http://www.carolmichaelsfitness.com) or call 973-379-4779.

## Strength & Courage DVD

McGee Women’s Research Institute in Pittsburgh, Pennsylvania, has produced a new video of exercises for breast cancer survivors. Also downloadable from their website, the exercise program was developed by Sharon Cowden, MD, who is

a pediatrician and a breast cancer survivor since 2002.

At that time, she began working with Janette Poppenberg, an ACSM/ACS certified Cancer Exercise Trainer®, to regain her upper body strength and flexibility, which had been diminished by her treatment. From their shared experience, Sharon and Janette created *Strength & Courage* to help other survivors in their recovery.

For more information about the DVD, visit <http://www.strengthandcourage.net/>, or call 412-641-8556.

## More Information from the National Cancer Institute

To find out more about the American College of Sports Medicine’s guidelines on physical activity for cancer survivors, visit the National Cancer Institute’s website at <http://www.cancer.gov/ncicancerbulletin/062910/page5>.

*Note: AICR does not necessarily endorse the products listed above and suggests reviewing them with your health-care provider to see if they’re right for you.*

If you or a loved one is a cancer survivor, visit [www.aicr.org/patients-survivors/](http://www.aicr.org/patients-survivors/) for practical, science-based tips on healthy eating and physical activity.



# Phone Counseling Helps Weight Loss after Breast Cancer

**An AICR-funded study found that breast cancer survivors managed their weight better thanks to cost-saving phone counseling.**

**IN-PERSON COUNSELING** is considered the best approach for helping people follow a wellness plan. But time, access and cost make that difficult for many people.



Melinda Irwin,  
PhD, MPH

The good news is recent findings from an AICR-supported study conducted by Melinda Irwin, PhD, MPH, and her colleagues at Yale University, suggest telephone counseling is effective, too.

Irwin is principal investigator for the LEAN Study, which examined whether counseling survivors in person or by phone about healthy eating and physical activity could lead to weight loss among breast cancer survivors.

For everyone—including survivors who are struggling with weight gain—evidence

shows that combining healthy eating with at least 30 minutes of daily physical activity helps people achieve and stay a healthy



Maura Harrigan,  
MS, RD, CSO

weight.

## Fostering Skills for Success

The study's Project Director, Maura Harrigan, MS, RD, CSO, an oncology nutrition specialist at the Yale Cancer Center, says, "Cancer survivors have fought hard to get well. Now they want the tools to stay well."

For LEAN, 100 survivors were randomly assigned to one of three groups: in-person counseling; phone counseling; or the usual-care group, which received pamphlets on healthy lifestyle recommendations. The women in the counseling groups received eleven 30-minute sessions over six months.

**"Every day is a new opportunity to move more and eat smarter."** — MAURA HARRIGAN, MS, RD, CSO

Participants who received counseling were given pedometers, a daily goal of reaching 10,000 steps and a weekly goal of 150 minutes of walking.

Sometimes, the women got off track, Harrigan says. "But a big part of counseling is learning how to regroup, move forward and not feel lost. That means not dwelling on past failures," she notes. "Every day is a new opportunity to move more and eat smarter."

Journaling was important in changing behavior, Harrigan adds, because keeping a record of what you eat and the number of steps on

your pedometer (or other ways you exercise and for how long) each day creates a more accurate picture of your habits.

The pedometers allowed women to receive immediate feedback on their behavior change, like taking the stairs instead of the elevator, says Harrigan.

"We helped build skills like reading Nutrition Facts labels so they could make independent decisions about how what they ate fit into a mostly plant-based way of eating," she explains. "Also, they learned to link caloric intake with exercise."

At six months, both the telephone and in-person counseling participants who completed all of their counseling sessions lost about seven percent of

their body weight, while the comparison group lost about two percent.

"When I was undergoing treatment, I wasn't the one in power, my doctors were," says phone group participant Pat Biggins. "But LEAN put the ball back in my court. It's not just the physical benefits but the emotional benefits that are positive."

To find a registered dietitian or other health professional who can provide phone counseling, call your local hospital's cancer center. Or try using a pedometer and keeping a food and exercise journal with a buddy or on your own.



PHOTO: YEEB

# Make Scrumptious Salads This Summer

**Dress your salads for success as they brighten up your healthy, cancer-preventive diet.**

**COOL SUMMER SALADS** are the perfect way to eat a wide variety of cancer-fighting vegetables—as well as beans, whole grains and fruits. But too many high-calorie ingredients and bottled dressings can ruin an otherwise healthy salad.

Instead, toss together some delicious, colorful and high-fiber combinations of summer vegetables. Our recipes on the next page lead you down the garden path of good health by following AICR's model for cancer-fighting meals: the New American Plate. Two-thirds or more of the ingredients are plant foods and 1/3 or less are lean animal proteins, such as fish and poultry.

Top them with our Basic Vinaigrette dressing. It can be enjoyed as is or made into a healthy creamy version. If desired, perk up your dressing with green herbs (such

as dill, basil, oregano, parsley or celery seed), orange zest or juice, flavored vinegar (like raspberry or cider) or mustard. A touch of honey can enhance your dressing, too.

Herbs and spices can flavor foods so you don't have to use salt. They also contain phytochemicals, the compounds scientists have found to have cancer-fighting properties. Vegetables and beans are high in fiber, too—another reason why they may help to prevent cancer, according to AICR's expert report and its updates.

**Explore the variety of delicious, high-fiber beans and whole grains in our free brochure, *Beans and Whole Grains: The New American Plate*. Check box 3 on the Free Information Request card.**

**MARILYN'S  
CHOICE**

**FREE  
OFFER**



**NEW AMERICAN PLATE**  
*Challenge*  
12 WEEKS TO A  
HEALTHIER YOU

AICR's New American Plate model for mostly plant-based meals and physical activity can be found at [www.aicr.org/new-american-plate/](http://www.aicr.org/new-american-plate/).

Join AICR's New American Plate Challenge—12 Weeks to a Healthier You ([napchallenge.org](http://napchallenge.org)) for weekly challenges, recipes, community support and sharing.



## Turkey Curry Salad

6 cups mixed salad greens (baby spinach, green leaf lettuce and baby kale)  
 1 recipe Creamy Vinaigrette, divided  
 1 Tbsp. mango chutney or all-fruit apricot preserves  
 2 tsp. curry powder, or to taste  
 12 oz. chopped cooked turkey breast  
 ½ cup diced celery  
 1 medium orange bell pepper, chopped  
 ¼ cup thinly sliced scallions  
 ¼ cup dried currants or raisins

Toss salad greens with 3 Tbsp. Creamy Vinaigrette and transfer to serving bowl. > In small bowl, mix chutney or preserves with curry powder and remaining Creamy

Vinaigrette dressing; set aside.  
 > In medium bowl, combine turkey, celery, orange pepper, scallions and currants or raisins. > Toss with curry-vinaigrette mixture. > Serve over salad greens.



Makes 4 servings. Per serving: 288 calories, 13 g fat (2 g saturated fat), 15 g carbohydrates,

27 g protein, 3 g dietary fiber, 152 mg sodium.

## Basic Vinaigrette

2 Tbsp. white wine vinegar  
 1 tsp. Dijon mustard or honey mustard  
 ¼ tsp. dehydrated onion (or 1 tsp. finely minced onion or shallot)  
 3 Tbsp. olive oil (or walnut oil)  
 Salt and freshly ground black pepper, to taste

In medium bowl, whisk vinegar, mustard and onion together. > Add oil, whisking to completely blend. > Season with salt and pepper.

Makes 3 servings. Per serving: 122 calories, 14 g fat (2 g saturated fat), <1 g carbohydrates, 0 g protein, 0 g dietary fiber, 21 mg sodium.

## Creamy Vinaigrette

To Basic Vinaigrette recipe, add 3 Tbsp. reduced-fat sour cream (or use fat-free Greek yogurt or reduced-fat mayonnaise), plus 1 tsp. honey, or to taste (optional). > Whisk to combine thoroughly before serving.

Makes 4 servings. Per serving: 113 calories, 12 g fat (2 g saturated fat), 2 g carbohydrates, <1 g protein, 0 g dietary fiber, 21 mg sodium.

## White Bean and Vegetable Salad

1 can (14-oz.) white beans such as navy or cannellini, rinsed and drained  
 1 cup cherry tomatoes, quartered  
 ½ medium yellow bell pepper, seeded and chopped  
 ½ cup frozen cut green beans, steamed to crisp tender (1–2 minutes in microwave)  
 ¼ cup diced red onion  
 2 Tbsp. minced fresh chives  
 1 recipe Basic Vinaigrette, divided  
 1–2 tsp. fresh lemon juice  
 1 tsp. brown or Dijon mustard  
 2 Tbsp. Parmesan cheese, divided  
 Salt and freshly ground black pepper, to taste  
 3 cups leafy greens

In medium bowl, combine beans, tomatoes, yellow bell pepper, green beans, onion and chives. > Toss with ¼ cup Basic Vinaigrette, lemon juice, mustard and 1 Tbsp.



of Parmesan cheese. > Season with salt and pepper; set aside.  
 > In serving bowl, combine greens with remaining Basic Vinaigrette. Spoon bean mixture over greens; sprinkle with remaining Parmesan cheese. > Serve.

*Note: You can grate a little orange zest—the outer bright orange layer of the peel—over this salad to add extra flavor.*

Makes 3 servings. Per serving: 304 calories, 16 g fat (3 g saturated fat), 32 g carbohydrates, 12 g protein, 8 g dietary fiber, 110 mg sodium.

# Reducing Ovarian Cancer Recurrence

**A much-needed study is examining whether ovarian cancer survivors can live longer by eating a diet high in plant foods and getting regular physical activity.**

**OVARIAN CANCER** is one of the most deadly women's cancers. That's because its symptoms, such as abdominal bloating, are difficult to decipher until it has progressed to a late stage. Only 44 percent of ovarian cancer survivors live 5 years past diagnosis.



Tracy Crane,  
MS, RD

Researchers at the University of Arizona, in collaboration with the National Cancer Institute, are conducting the first-ever randomized, controlled study on whether ovarian cancer survival is linked with diet and physical activity.

The two-year LIVES (Lifestyle Intervention for Ovarian Cancer Enhanced Survival) study will try to find out if diet and physical activity together can improve survival for women after treatment for advanced ovarian cancer.

"Ovarian cancer is a very aggressive disease," says Tracy Crane, MS, RD, of the University of Arizona Cancer Center. She is working on the study under principal investigators David S. Alberts, MD, and Cynthia Thomson, PhD, RD.

"Patients, family members and health care providers are all interested in having more information and guidance to share with women at the end of their chemotherapy," she says.

## Trying to Pinpoint Prevention Factors

The researchers recently reviewed available studies that looked at whether a woman's diet is associated with her risk of developing ovarian cancer.

"Our earlier research suggests there is no 'miracle food' when it comes to reducing the risk of ovarian cancer," Tracy says. "Instead, it's the overall quality of the diet that makes a difference."

The evidence seems to suggest that a combination of healthy lifestyle choices may affect risk and possibly survival.

## Trying for Healthier Lifestyles

In the LIVES study, women who have finished chemotherapy treatment for ovarian cancer and are in

**Our free brochure, *Reach Your Healthy Weight for Life*, gives you science-based help for eating and being active to prevent cancer and recurrence. Check box 2 on the Free Information Request card.**

**FREE OFFER**



remission are randomly assigned to one of two groups. One group receives general health information and the other receives specific health coaching about diet, physical activity and weight control.

All participants are asked to fill out questionnaires regarding their diet and physical activity, plus other lifestyle and health issues. Blood samples also are collected to evaluate diet and related measures of health status.

The study expects to recruit nearly 1,100 participants from around the country. Subjects must be referred by their physician. For more information, call 1-888-TEAL-756 (1-888-832-5756) or visit [www.ovarianlives.org](http://www.ovarianlives.org).



## NEW REPORT LINKS BODY WEIGHT TO OVARIAN CANCER

AICR has added ovarian cancer to the list of cancers linked to obesity. With 60 percent of women in the U.S. now overweight or obese, this finding suggests they are at increased risk for ovarian cancer, as well as seven other cancers:

- COLORECTAL
- POST-MENOPAUSAL BREAST
- ENDOMETRIAL (UTERINE)
- ESOPHAGEAL
- KIDNEY
- PANCREATIC
- GALLBLADDER

The ovarian cancer findings were announced in March from the AICR/WCRF Continuous Update Project (CUP).

For more details about the CUP and about how to manage weight to reduce your cancer risk, visit [www.aicr.org](http://www.aicr.org).





# Giving to Research Gives Hope

**DOROTHY RICHARDSON** of Long Beach, California, is a breast cancer survivor. She had a mastectomy after a mammogram found a tumor. "It was small and luckily hadn't spread," she says. But even more challenging has been her son's diagnosis of prostate cancer.



Dorothy Richardson

"When it's your son, it's so scary," she says. "He has battled cancer for 10 years and has participated in several research trials for new treatments.

"It keeps him going to know that researchers are working on a cure. The fact that he has lived years beyond his diagnosis was made possible by cancer research. He is happy to have been alive to see his grandchildren born and to participate in their lives."

## A "Big Fan" of Cancer Research

Dorothy, who is 86, recalls how polio was so greatly feared when she was a girl—then was defeated when the vaccine was discovered.

"If 100 people give only \$10 each, then you have \$1,000," she says. "Every dime we can give to research is a step along the way. If I can make the steps go a little faster, that's my duty! We have to make sure researchers have the money to do the work. Can you imagine how wonderful it would be to be able to say they've wiped out cancer and we don't have to worry about it anymore?"

"Just about everyone knows someone who has cancer," she says. "I recognize the importance of a healthy diet and exercise—those are things we all have a responsibility to do."

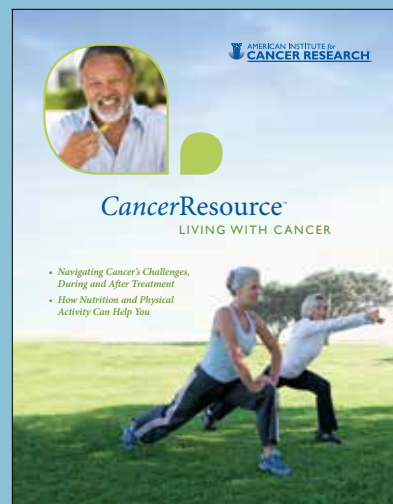
Last year, Dorothy established a Cancer Fighters Annuity. "It makes me feel great that I can contribute to research. It's the only way we're going to find a cure and keep our loved ones from suffering and dying of this dreadful disease."

A gift annuity will support cancer research while also providing a guaranteed income for life. For more information about AICR's Cancer Fighters Annuity Program, please call our Office of Gift Planning at 1-800-843-8114 or visit [www.aicr.org/planned-giving/annuity](http://www.aicr.org/planned-giving/annuity).

## FROM AICR

## CancerResource™ Now Available for Patients and Survivors!

AICR's **CancerResource™** offers a reliable source of science-based nutrition and physical activity information to help cancer patients and survivors recover and prevent secondary cancers.



**CancerResource™** gives useful advice and suggestions for coping with treatment side-effects and is reviewed by an advisory board of leading researchers and oncologists from Harvard, Duke and other top universities.

**CancerResource™** has two segments: **During Treatment** and **After Treatment**. The publication also lists resources for eating well and being more physically active to prevent recurrence.

To download or order a free copy of **CancerResource™**, visit [www.aicr.org](http://www.aicr.org); or you can call 1-800-843-8114.

## A Special Invitation to Join The League of Willful Cancer Fighters

When supporting AICR with a charitable gift annuity or an estate gift such as a bequest, you automatically become a member of the League of Willful Cancer Fighters, a group of caring individuals who are committed to winning the war on cancer. We invite you to consider our Cancer Fighters Annuity Program. You simply make a gift by transferring money or stock to the Institute in exchange for a guarantee to pay you a specified annuity income for as long as you live.

If you are interested in learning more about a Cancer Fighters Annuity, simply check box 5 on the Free Information Request card.



# A Call to Arms – and Shoulders

**There's no better time than now to get and stay active for lower cancer risk. For strengthening, resistance bands can really help.**

**WITH RESISTANCE BANDS**, you can get stronger anytime and anywhere. They're ideal to use indoors away from summer heat or outdoors on a flat surface (remember to wear sunscreen). Resistance bands are also inexpensive and lightweight for packing when you go on a trip.



Being active for 30 minutes or more every day reduces the risk of several cancers, along with other chronic diseases. If you need more reasons, there's also research that suggests exercise can help make you feel better and look better. And it's fun.

## Row Without a Boat

No boat or rowing machine? No problem. You can use resistance bands to strengthen your back, upper arms and shoulders.

**1** While you're standing, hold one end of the band in your right hand and one in your left. Step your right foot forward, bending the knee



slightly, and loop the center of the band underneath the ball of your right foot. Straighten up until the band you are holding is taught. Keep a straight back and hold that position.

**2** Slowly pull the band back with both hands, bending your elbows and squeezing your shoulder blades together. Pull the band as far as you can, with moderate difficulty, so your muscles are working but not straining. Hold for 1 or 2 seconds.

**3** Slowly bring the band back into starting position, still holding it with both hands.

Repeat this move 10–12 times, if you can; if not start with fewer repetitions and build up gradually.

## Front and Side Arm Raises

**1** While you're standing, hold one end of the band in your right hand and one in your left. Lean forward so the center part of the band is on the floor. Step onto the center of the band that's on the floor, so it is underneath the balls of your feet. Stand straight, still holding the band with your arms at your sides.

**2** With your back straight, slowly raise your arms straight out in front of you as high as you can. Keep your palms turned toward the floor while you are holding the

band. Hold for 1 or 2 seconds, then lower to starting position.

**3** Next, raise your arms straight out to your sides, stretching the band no higher than shoulder height. Hold for 1 or 2 seconds and slowly lower your arms to starting position. Repeat front and side raises 10–12 times each.



Show you care...

Remember the passing of a family member or friend...

Honor a loved one...

Celebrate a special anniversary or birthday...

Offer hope, find answers, fight cancer. Please use the enclosed card to make a memorial or honor gift today. You can also make a gift by visiting [www.aicr.org/memory](http://www.aicr.org/memory) or [www.aicr.org/honor](http://www.aicr.org/honor).



You can order a free AICR Resistance Band with more exercises printed on it. Simply check box 4 on the Free Information Request card.



# Coffee: Friend or Foe?

**Coffee contains cancer-preventive phytochemicals. But its potential benefits must be balanced with a few cautions.**

**WHEN A 1952 AD CAMPAIGN** promoted the idea of a coffee break, it quickly became a daily ritual in American workplaces and homes.

Recent studies report that more than half of American adults drink at least three cups of coffee daily, on average.

## What's in Coffee?

Coffee is a good source of the B vitamin riboflavin and is a concentrated source of some phytochemicals, including:

- chlorogenic acid, an antioxidant compound
- quinic acid, a phytochemical that contributes to coffee's acidic taste
- cafestol and kahweol, compounds that are extracted from the beans' oil and found in coffee brewed without a filter
- caffeine, a stimulant that affects the central nervous system

## A Jittery History

In the 1960s, some small population surveys linked coffee to heart disease. Throughout the 1970s and '80s, some coffee research suggested that coffee increased risk of bladder and pancreatic cancers. Other findings

said that people who drank more coffee had a higher risk of heart disease.

However, coffee studies using more rigorous methods and larger groups of people failed to yield the results reported in earlier studies.

In fact, the story of coffee and health began to point in a different direction.

## Coffee May Be Protective

**CANCER:** AICR's expert report and continuous updates judged that coffee is *unlikely* to either increase or decrease the risk of pancreatic or kidney cancer (the two cancers with enough evidence to make a conclusion). More recently, the Continuous Update Project found that coffee is linked to lower risk for endometrial cancer.

**TYPE 2 DIABETES:** Studies from the U.S., Australia and Europe show a possible lower risk of type 2 diabetes for long-term coffee drinkers.

**PARKINSON'S DISEASE:** More research needs to be done, but global studies show a link between coffee and lower risk of Parkinson's.

**HEART DISEASE:** The most recent studies do not show a harmful effect of coffee on heart disease.

## Coffee's Downsides

Research on coffee, cancer and other chronic diseases is still underway, so we can't pronounce coffee a "health food" until we know more. For now, we do know some reasons to avoid or limit coffee:

- Coffee may worsen symptoms of heartburn.
- Caffeinated coffee may cause nervousness or insomnia, especially if you drink it late in the day or after dinner.
- Coffee itself has no calories. But adding cream, sugar and syrups can boost calorie content, sometimes as high as several hundred calories.

## RECIPE

*Here's a cool summer coffee drink from the AICR Test Kitchen.*

## Banana-Vanilla Coffee Smoothie

- ½ cup nonfat milk
- ½ cup strong-brewed coffee (use 1–2 Tbsp. ground coffee per ½ cup water)
- 1 cup frozen non-fat coffee-flavored yogurt or low-fat ice cream
- 1 large peeled frozen banana, cut into 4 pieces
- 1 tsp. vanilla extract
- 1 Tbsp. crushed, dried (unsweetened) banana chips (optional)

Pour milk and coffee into blender. > Add frozen yogurt, banana and vanilla. > Purée until thick and creamy. > Pour into tall glasses and top each with crushed banana chips.

Makes 3 servings. Per serving: 120 calories, 0 g fat (0 g saturated fat), 26 g carbohydrates, 5 g protein, 1 g fiber, 60 mg sodium.



**WIN!**

## Win Premium Ground Coffee

Win a variety pack of premium ground coffee. Simply answer the question on the front of the Free Information Request card correctly to participate in the prize drawing. Raffle details are on the fruit raffle ticket included with your Newsletter.

# Investigating the Power of Bacteria

**Bacteria play a central role in digestion and metabolism. AICR-funded research is looking into their potential role in inflammation and cancer.**

**NINE OF EVERY TEN** cells in our bodies are actually very tiny organisms called “microbes.” They play a central role in digestion and metabolism. The vast majority of microbes, such as bacteria, are found in the gastrointestinal tract. They also influence immune responses.

Certain microbes are known carcinogens, such as *Helicobacter pylori*, which causes stomach cancer and *human papillomavirus*, known to cause cervical cancer. But other microbes are essential to good health.

## A Question of Balance

If the balance of bad microbes outweighs the number of good microbes, a situation known as *dysbiosis* occurs. Some studies suggest that in the gut, dysbiosis can increase

risk for colorectal cancer. Liver and pancreatic cancers may also be triggered by dysbiosis.

A microbe imbalance can happen in the gut when you take antibiotic medications. Eating probiotics, live cultures of microbes found in some fermented foods, is believed to restore balance and healthy digestion. However, researchers still know little about the impact of probiotics (see box).

## Inflammation’s Influence

AICR grantee Christian Jobin, PhD, Professor of Infectious Diseases and Pathology at the University of Florida, is looking into the role of gut microbes’ dysbiosis in colorectal tumor formation and growth.

Previous studies showed that a common probiotic “cocktail”

will prevent inflammation in mice if given before inflammation occurs. However, Dr. Jobin found that although probiotics drastically change microbial composition, they actually increase tumor production if given after inflammation has occurred.

Why? Dr. Jobin explains that a group of protective microbes called *Clostridium* decreased in the mice that were fed probiotic supplements. *Clostridium* typically produce a substance called butyrate that has anti-inflammatory and anti-cancer effects.

Dr. Jobin says research is needed and that people should be wary of probiotic supplements, which are not regulated. Instead, he suggests that eating a fiber-rich diet that encourages the production of butyrate, found in whole grains and other high-fiber foods, might be safer than taking probiotic supplements until more research on probiotics and cancer is done.

“We are just at the beginning of a new age in medicine,” Dr. Jobin says, “one in which we may be able to harness the power of bacteria.”



Christian Jobin, PhD

## How to Keep Your Bacteria Healthy

Probiotic foods are generally considered healthy when not highly processed with added sugar and fat. They include yogurt that is labeled as having “live cultures” and a yogurt drink called kefir, as well as fermented vegetables and some soy products (such as miso).

But in general, AICR recommends taking a broad approach to keeping your gut bacteria healthy: Eat plenty of vegetables, fruits, whole grains and beans—plant foods that provide good bacteria as well as cancer-fighting phytochemicals. Visit AICR’s web page, Foods That Fight Cancer, at [www.aicr.org/foods-that-fight-cancer/](http://www.aicr.org/foods-that-fight-cancer/).

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