

Your Nutrition Connection



This publication describes evidence-based recommendations for reducing cancer risk, including breast cancer

Food, Nutrition and Physical Activity Recommendations for Reducing Breast Cancer Risk

Background

In 2007, the World Cancer Research Fund and the American Institute for Cancer Research (WCRF/AICR) released a report titled “Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective.” This report reflects the findings of approximately 7,000 studies that looked at links between food, nutrition, physical activity and cancer risk. Based on this large body of research, the experts who wrote this report identified eight general recommendations on how people can reduce their cancer risk.

What are the recommendations?

WCRF/AICR RECOMMENDATIONS FOR CANCER PREVENTION FOR THE GENERAL POPULATION (2007)

1. Maintain a healthy body weight (Body Mass Index within the normal range).
2. Enjoy moderate physical activity daily for at least 30 minutes every day.
3. Avoid sugary drinks. Eat foods that are high in calories and fat and low in fibre *less often*.
4. Eat mostly plant foods (vegetables, fruits, whole grains and legumes, such as beans).
5. Limit intake of red meats (pork, beef and lamb) and avoid processed meats.
6. If consumed, limit daily alcoholic drinks to 2 for men and 1 for women.
7. Limit intake of salt; do not eat mouldy grains or legumes.
8. Meet your nutrient needs through diet, rather than supplements.

What are the links between these recommendations and breast cancer risk?

- Alcohol intake increases breast cancer risk in adult women
- Excess body fat:
 - *increases* breast cancer risk in post-menopausal women
 - *decreases* breast cancer risk in pre-menopausal women
- Excess abdominal fat may increase breast cancer risk in post-menopausal women
- Weight gain during adulthood may increase breast cancer risk in post-menopausal women
- Higher levels of physical activity may decrease breast cancer risk in post-menopausal women

A closer look at the recommendations for reducing your overall cancer risk

- 1. Be as lean as possible within the normal range of body weight**
 - Maintain a healthy body weight
 - Avoid weight gain and increases in waist circumference in adulthood

What is a healthy body weight?

Health Canada defines your “healthy body weight” as the weight range linked to the lowest risk of chronic diseases based on your height, weight and sex. Two tools are used to find your healthy body weight range: body mass index (BMI) (your body weight in relation to your height) and waist circumference measurement (distance around your waist). To calculate your BMI and waist circumference, see the Your Nutrition Connection brochures *How to Assess your Body Weight* and *Healthy Body Weight and Breast Cancer Risk* available from the Odette Cancer Centre or at ync.sunnybrook.ca.

Why are healthy body weight and waist circumference important?

Waist circumference measurements that are 35 inches (88 cm) or greater for women and 40 inches (102 cm) or greater for men are linked to higher risk of chronic disease. Achieving and maintaining a body weight within the healthy range is strongly linked

to lower overall cancer risk. Maintaining a healthy weight and an appropriate waist circumference lowers your risk of cancer and other chronic diseases, such as diabetes, obesity and heart disease.

How to achieve and maintain a healthy weight

- Enjoy all foods in moderation
- Eat regularly (3-4 small meals a day)
- Plan your meals and snacks
- Control portion sizes
 - ◆ Compare your portions to Canada's Food Guide serving sizes
 - ◆ Buy smaller packages of food
 - ◆ Ask for smaller portions at meals
 - ◆ Use a smaller plate
 - ◆ Plate your snacks
- Eat slowly
- Limit foods that are high in calories and fat and low in fibre, such as fast foods, cookies and chocolate



Weigh yourself regularly to help achieve and maintain a healthy body weight

- Eat mostly plant foods: vegetables, fruits, whole grains and legumes (dried peas, beans and lentils) (see recommendation #4)
- Start your meal with a soup, salad or a glass of water
- Keep a food and activity diary to help you stay on track
- Weigh yourself regularly
- Stop eating while you still feel comfortable (no longer hungry, yet not too full)
- Reduce mindless eating (e.g. while watching television)
- Set reasonable weight loss goals (1-2 pounds each week at most)
- Drink at least 8 cups of water daily
- Limit alcohol intake

2. Be physically active every day

- *Aim for at least 30 minutes of activity daily*
- As your fitness improves, increase to 60 minutes of *moderate*, or 30 minutes or more of *vigorous* physical activity, every day
- Limit inactive habits, such as watching television

What is physical activity?

Any bodily movement is physical activity. All activities count—walking to your car, raking leaves, vacuuming, lifting groceries, hiking, biking, yoga and playing sports.

Why is physical activity important?

Daily physical activity promotes bone, heart and mental health and will help you achieve and maintain your healthy body weight.

What is moderate physical activity?

Moderate physical activities raise your heart rate, make you sweat a little, and make you breathe harder. You are exercising at a moderate level if you can talk, but not sing, while doing the activity. Brisk walking, bike riding, dancing, water aerobics, raking leaves and housework are moderate physical activities.

What is vigorous physical activity?

Vigorous physical activities raise your heart rate even higher, make you sweat, and make you feel “out of breath”. During vigorous activity, you will not be able to say more than a few words without pausing for breath. Fast walking, jogging or running, playing tennis, swimming laps, heavy gardening (continuous digging or hoeing), hiking uphill and cross-country skiing are vigorous physical activities.

How much physical activity do you need?

Aim for at least 30 minutes of activity a day. You can do this in several 10 minute intervals of moderate or vigorous activity. As your fitness improves, increase to 60 minutes or more of *moderate* activity or 30 minutes or more of *vigorous* activity every day.

Canada’s Physical Activity Guidelines say that you need at least 150 minutes of moderate-to-vigorous aerobic/endurance physical activity

per week to feel the health benefits of physical activity. Add muscle and bone strengthening activities that use major muscle groups at least twice per week.

How can you be more active every day?

- Walk more (e.g. to the subway, grocery store or work), or walk part of the way and take transit the rest
- Carry a basket instead of pushing a cart when you shop
- Choose the stairs instead of the escalator or elevator
- Find a friend or family member to walk, ride, dance or play with you
- Make it a habit—start or end each day with a walk around the block

For more information on physical activity and breast cancer risk, see the Your Nutrition Connection brochure *Physical Activity and Breast Cancer Risk* available from the Odette Cancer Centre or at ync.sunnybrook.ca.



Be physically active every day

3. Limit foods and drinks that promote weight gain

- Eat fewer energy-dense foods
- Avoid sugary drinks, such as soft drinks/pop, fruit drinks
- Eat less fast food

What are energy-dense foods?

Energy-dense foods are high in calories and fat and low in fibre and water. Processed foods, such as chips, cookies, fried chicken, muffins and fast foods tend to be high in energy density. These foods contain more calories per gram compared to plant-based foods, such as vegetables, fruits and legumes. Foods that contain more than 225 calories per 100 grams (or 3½ ounces) are called high in energy density.

For example:

- ½ cup of milk chocolate (100 grams or 3½ ounces) = 520 calories
- 1 cup of apple slices (100 grams or 3½ ounces) = 50 calories
- 100 grams of milk chocolate provides 10 times more calories than 100 grams of apple; therefore milk chocolate is a more energy-dense food than apples.

Note: Energy-dense foods such as nuts, seeds and some vegetable oils provide valuable nutrients but are high in fat. Eat these foods in moderation.

What are sugary drinks?

Sugary drinks are soft drinks and flavoured drinks such as fruit punches or fruit cocktails, iced tea, sports and energy drinks, milkshakes, smoothies, and sweetened fruit drinks or juices. Many specialty drinks, such as iced cappuccino and flavoured coffee and tea beverages, and some alcoholic drinks, such as wine coolers and mixed drinks, are high in sugar content. Check the ingredient list on the food label to see if sugar has been added.



Fresh fruit salad

Why limit energy-dense foods and avoid sugary drinks?

Avoiding foods that are high in fat, calories, and added sugar will help you keep and maintain your healthy body weight, which will reduce your cancer risk.

How can you eat fewer energy-dense foods?

- Eat more vegetables and fruits. These low energy-dense foods are high in water and fibre and help you feel full quickly
- Read the Nutrition Facts Panel to compare serving sizes and select foods that are lower in calories and fat per serving
- When eating out, check the menu for healthier choices or ask for nutrition information to help you choose a lower calorie meal



Ice water with lemon slices

- Choose lower fat dairy products (yogurt, cottage cheese, milk, sour cream), dressings, sauces (salad dressing, mayonnaise)
- Choose lower fat packaged foods (crackers, muffins)
- Choose leaner meats, such as chicken (skinless) and fish
- Trim visible fat from red meats

How can you avoid sugary drinks?

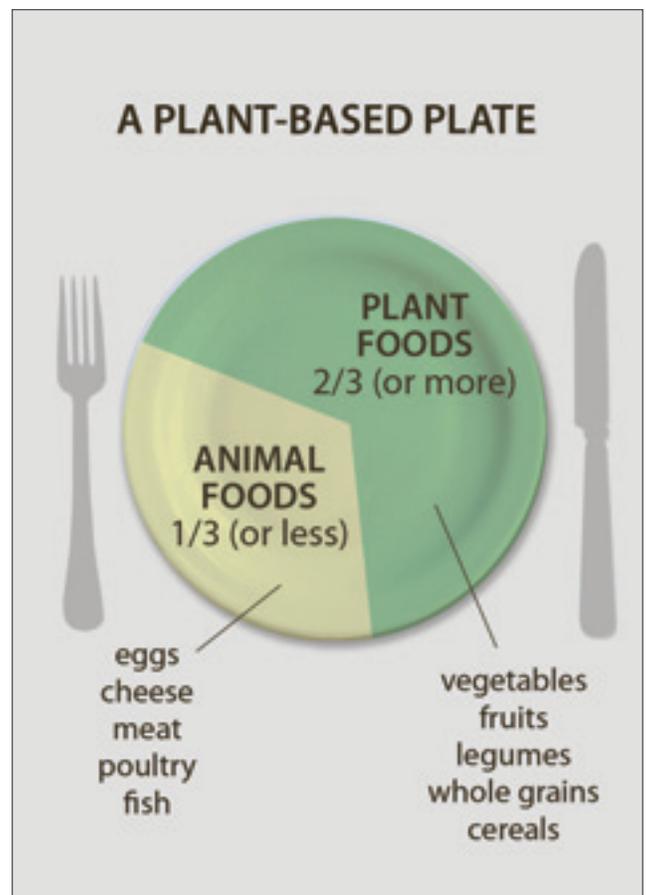
- Drink water instead—add lime or lemon slices for flavour
- Try your coffee without added syrups, sugar, whipped cream or high-fat milk
- Drink tea or homemade ice teas
- Try carbonated water with fruit juice

4. Eat mostly plant foods

- Eat 5 or more servings of colourful non-starchy vegetables and fruits every day
- Balance starchy vegetables, roots or tubers with non-starchy vegetables, fruits and legumes
- Eat a variety of whole grains and/or legumes with every meal
- Limit refined starchy foods

What is a plant-based diet?

A “plant-based diet” includes more plant foods, such as vegetables and fruits, whole-grains and legumes (beans), and less animal foods. Plant foods that are low in calories, high in nutrients and dietary fibre should fill $\frac{2}{3}$ or more of your plate, while animal foods, such as cheese, meat, fish, poultry and eggs, should make up the rest. The plant-based diet is *not* a vegetarian or weight loss diet; it follows Canada’s Food Guide.



Why eat a plant-based diet?

Eating mostly plant foods, such as a variety of colourful vegetables, fruit, whole grains and legumes (dried peas, beans and lentils), daily may lower your risk of cancer and other chronic diseases like heart disease, diabetes and obesity, and helps you achieve a healthy body weight while promoting your overall health.

Non-starchy vegetables, fruits, roots and tubers include: apples, berries, cantaloupe, oranges, pears, beets, bok choy, broccoli, carrots, eggplant (aubergine), garlic, green leafy vegetables, Jerusalem artichoke, okra, parsnips, parsley, rutabaga, Swiss chard, turnip and more.

Starchy vegetables, roots and tubers include: cassava, corn, plantain, potato, sweet potato, taro, yam, yucca and more.



Whole grain cereal topped with fresh fruit

Add plant foods to every meal

BREAKFAST

- Whole grain cereal with fresh or dried fruit
- Low-fat cottage cheese with fresh and/or dried fruit
- Whole grain English muffin or bread with peanut, hazelnut or almond butter
- Vegetable omelette with peppers, mushrooms, onion and spinach

LUNCH

- Mixed green salad with chick peas, cucumber, red onion, red pepper, topped with tuna and lemon vinaigrette
- Whole grain tortilla wrap with hummus, roasted or fresh vegetables, arugula or green-leafy vegetable and feta or goat cheese

DINNER

- Chili, soups or casseroles with legumes and vegetables
- Whole wheat couscous or brown rice with stir-fried bok choy, broccoli, red pepper, mushrooms, bean sprouts
- Whole wheat pasta with garlic, onions, tomatoes, peppers and mushrooms, topped with basil and shavings of hard cheese

SNACKS

- Yogurt with fresh or dried fruit, chopped nuts and bran cereal
- Vegetables or a whole grain pita with hummus or yogurt-based dip
- Whole grain toast with tomato and avocado slices and fresh basil

For more information on the plant-based diet, check out Your Nutrition Connection brochure *Plant-Based Diet and Breast Cancer Risk*, available from the Odette Cancer Centre or at ync.sunnybrook.ca.

5. Eat less red meat and avoid processed meat

- Limit lean red meat intake to 18 ounces (about 2¼ cups) or less of cooked meat each week
- Avoid processed meat

What is red meat?

Pork, beef and lamb are considered red meats. Dishes made with red meats include Shepherd's pie, chili, burritos, tacos, meat pies, hamburgers and kabobs.

What is processed meat?

Processed meats have been preserved by smoking, curing, or salting or adding preservatives, such as ham, bologna, bacon, salami, pancetta, prosciutto, hot dogs and sausages.

Why limit red meat and processed meat?

There is convincing evidence that eating higher amounts of red and processed meats increases colorectal cancer risk. The process (smoking, curing) and additives (preservatives, salt) used to preserve meats can form cancer causing agents. Red and processed meats are also higher in energy-density which may lead to weight gain, a risk factor for breast cancer. People who eat more red meat and processed meats tend to eat fewer vegetables and fruit and they may miss out on the cancer protective properties of these plant foods.

How can you eat less red meat?

- Choose meat alternatives (beans, lentils, tofu) more often
- Fill ⅔ or more of your plate with plant-foods (vegetables, fruits, whole-grains, legumes) and ⅓ animal foods (cheese, meat, fish, poultry, milk)
- Use ground chicken, turkey, beans or vegetables instead of red meat
- Substitute “meaty” textured vegetables, such as portabella mushrooms and eggplant slices instead of red meat

6. Limit alcoholic drinks

- If you drink alcohol, aim for no more than 2 drinks a day for men and 1 drink a day for women

What is an alcoholic drink?

Wine, beer, liquor or spirits contain different amounts of alcohol per bottle, glass or can.

| | WHAT IS ONE DRINK? | % ALCOHOL BY VOLUME |
|---|--|---------------------|
| Wine | ⅔ cup (or 5 ounces or 150 mL) | 12-13% |
| Beer or lager | 1½ cups (or 12 ounces or 355 mL) | 3-5% |
| Liquor/spirit such as vodka, whisky, rum, or gin | 3 tablespoons (or 1.5 ounces or 45 mL) | 40% |

Why avoid alcohol?

There is convincing evidence that higher alcohol intake increases the risk of breast cancer for pre- and post-menopausal women. Many alcoholic drinks (e.g. wine coolers) are high in calories and can contribute to weight gain.

How can you reduce your alcohol intake?

- Add ice to wine and liquor
- Try similar coloured drinks instead of wine or beer (such as grape juice or ice tea)
- Alternate between alcoholic and non-alcoholic drinks
- Create sparkling drinks by adding soda water to wine
- Dilute alcoholic drinks with soda water or low calorie mixers
- Control your portion sizes by measuring instead of guessing

7. Limit your salt intake

- Limit salt-preserved, salted and salty foods; preserve foods without using salt
- Limit salt-processed food intake

Why limit salt?

High salt intake may damage the stomach lining and increase stomach cancer risk.

How much salt do you need?

Health Canada recommends that adults need 2,300mg of sodium per day. Since most *non*-processed foods contain some salt naturally, we can easily meet our sodium needs by eating a healthy diet rich in plant foods.

Most Canadians eat too much salt daily. Canada's Food Guide recommends choosing foods that are lower in sodium and prepared foods that contain little or no added salt.

How can you reduce your salt intake?

- Prepare meals at home so you can control the amount of salt added during and after cooking
- Choose fresh foods (fruits, vegetables) more often than packaged convenience foods that are high in sodium
- Limit salty foods and foods preserved in salt, such as canned soups, deli meats, and packaged snack foods
- Look for these words on food labels:
 - ♦ “salt-free” (less than 5 mg of sodium per serving)
 - ♦ “low in sodium” (140 mg of sodium or less per serving), or
 - ♦ “reduced in sodium” (at least 25 percent less than the regular product)
- Use herbs (basil, bay leaves, thyme) and spices (black pepper, chili and curry powder, vinegar, fresh ginger, garlic and lemon juice) instead of salt



A variety of culinary herbs

- Read the Nutrition Facts Panel to compare serving sizes and select foods that are lower in sodium per serving
- Put away the salt shaker
- When eating out, ask for nutrition information so you can choose lower salt meals
- Ask for dressings and sauces ‘on the side’ so you can control how much you eat

8. Try to meet your nutrient needs through diet alone

- Dietary supplements are not recommended for cancer prevention

What are dietary supplements?

Dietary supplements include vitamins, minerals and natural health products, such as herbal remedies. Other substances found in foods, such as specific antioxidants (e.g. lycopene or vitamin C), may also be found in dietary supplements. These products are found in many forms including pills, powders and liquids.

Why aren't dietary supplements recommended for cancer prevention?

There is no link between taking dietary supplements and reduced breast cancer risk. You can meet all of your nutrient needs by eating a well-balanced and varied diet.

Whole foods contain hundreds of natural cancer protective substances, such as antioxidants and phytochemicals. Dietary supplements do not contain the same components as whole foods. For example, strawberries contain vitamin C, soluble fibre, antioxidants and many other substances. Taking a pill that contains vitamin C, soluble fibre and antioxidants does not give you the same potential health benefits as eating a

strawberry. The vitamins, minerals and other cancer protective substances found in foods are digested and absorbed more easily than the vitamins and minerals found in dietary supplements.

Taking dietary supplements may make some people think that they do not need to eat a healthy, balanced diet. The evidence linking plant foods to lower cancer risk is based on eating whole foods, not taking supplements.

Can taking dietary supplements cause you any harm?

Yes. Many vitamins and minerals can cause harmful effects if they are consumed in high amounts for extended periods of time. These potential harmful effects are far more likely to occur from taking supplements than from eating whole foods. For example, taking beta-carotene supplements has been shown to promote cancer development among people who are at high risk of lung cancer. No link has been found between eating high amounts of foods that are rich in beta-carotene and increased lung cancer risk.

Should anyone take dietary supplements?

Yes, people who have been diagnosed with vitamin or mineral deficiencies and people with health conditions that affect their diet may benefit from taking dietary supplements. Pregnant women may benefit from taking a multivitamin supplement. Health Canada recommends that infants be given supplemental vitamin D and that men and women over 50 take a daily vitamin D supplement of 400 IU. Strict vegans and older adults may benefit from taking Vitamin B12 or other supplements. Consult a qualified health professional before taking a dietary supplement.

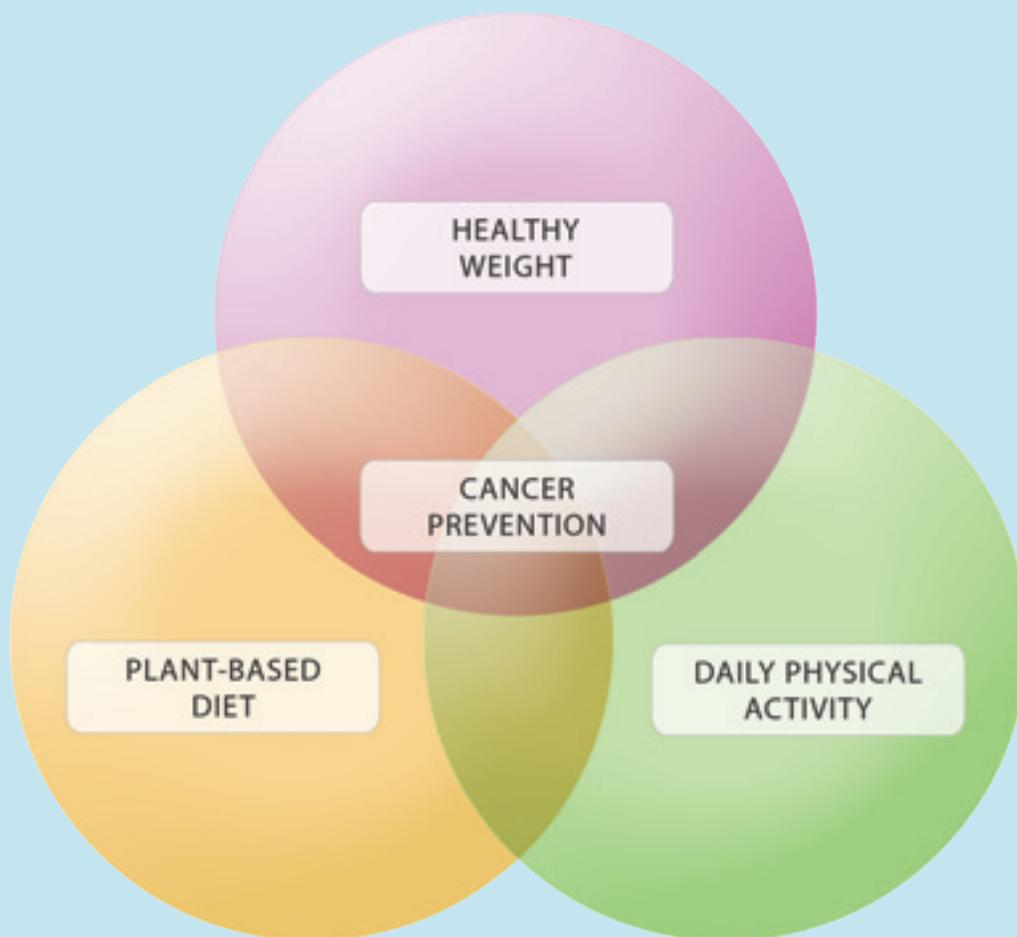
Eat a well-balanced and varied plant-based diet to meet your nutrient needs and reduce your overall cancer risk

The bottom line

The three guidelines below capture all eight of the AICR/WCRF recommendations for cancer prevention. Following any one of these guidelines will help to reduce your cancer risk including breast cancer, but following all three may reduce your risk of the most common cancers by up to $\frac{1}{3}$.

1. Eat mostly plant foods, limit red meat, avoid processed meat and alcohol
2. Be physically active for 30 minutes or more daily
3. Stay at a healthy weight throughout your life

WCRF/AICR GUIDELINES FOR CANCER PREVENTION FOR THE GENERAL POPULATION (2007)



Eat mostly plant foods, be physically active every day, and maintain a healthy weight throughout your life to reduce your cancer risk.

Where can you go for help and support?

- The dietitians at the Odette Cancer Centre can support your efforts and refer you to programs or services to help you reach your goals. To contact a dietitian, call the Patient & Family Support Program, Odette Cancer Centre at 416-480-4623.
- To find a dietitian in your area go to <http://www.dietitians.ca/> and click on “Find a Dietitian”.
- EatRight Ontario (<http://www.eatrightontario.ca/Doorway.aspx>) offers two ways for you to contact a registered dietitian for nutrition advice. You can email (anytime) or call toll free (1-877-510-5102).

Helpful resources

- Canada’s Food Guide can help you select healthy foods. To get your copy call Health Connection at 1.800.361.5653 or download it from http://www.hc-sc.gc.ca/fn-an/index_e.html.
- Build a one-day menu using “Let’s Make a Meal!” and then use the “Food Guide Calculator” as a quick and easy tool to see if you are Eating Well with Canada’s Food Guide at: http://www2.dietitians.ca/public/content/eat_well_live_well/english/menuplanner/Overview.asp.
- See the American Institute of Cancer Research educational brochures at http://www.aicr.org/site/PageServer?pagename=aicr_publications_brochures#nap.
- Portion size guide for different foods at http://www.aicr.org/site/PageServer?pagename=elements_serving_size.
- WebMD® Portion Size Guide gives great examples of reasonable portion sizes. Download it at <http://www.webmd.com/diet/printable/portion-control-size-guide>.
- EATracker will let you track your daily food and activity and show you how you stack up based on Canada’s Food Guide and Canada’s Physical Activity Guide. Go to http://www.dietitians.ca/public/content/eat_well_live_well/english/eattracker/index.asp.
- Other Your Nutrition Connection brochures available at ync.sunnybrook.ca: Dietary Fat and Breast Cancer Risk; Fibre and Breast Cancer Risk; Physical Activity and Breast Cancer Risk; How to Assess Your Body Weight; Your Healthy Body Weight and Breast Cancer Risk; The Plant-Based Diet and Breast Cancer Risk.

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