

## Breast cancer: How to reduce your risk

Breast cancer is the most commonly diagnosed cancer in Canadian women. Although heredity is an important factor in developing breast cancer, genetic factors account for only 5% to 10% of diagnoses. Nearly half of all breast cancers are due to factors under your control. Your daily activities can have a tremendous impact on your breast health.

### How can I reduce my risk?

Increasing physical activity, maintaining a healthy weight, eating a healthy diet, minimizing or eliminating alcohol consumption, not smoking or quitting smoking, avoiding night shift work, avoiding hormone replacement therapy, choosing to breastfeed, and making sure you're getting enough Vitamin D are key ways to improve your health and decrease your breast cancer risk.<sup>1</sup>

### Be physically active

Increasing physical activity is a great way to improve your health and reduce your risk of developing breast cancer. Participate as often as you can in any physical activity that interests you. Consult your physician and Canada's Physical Activity Guidelines ([www.csep.ca/guidelines](http://www.csep.ca/guidelines)) if you are unsure about how to start exercising.<sup>2</sup> Here are some additional tips to help you move more:

- Research has shown that moderate to high-intensity exercise for 30-60 minutes, 5 days per week, can reduce rates of estrogen-receptor positive breast cancer by 25-30%.<sup>3</sup>
- Physical activity combined with a healthy diet helps to lower the levels of estrogen in the body.
- Examples of activities include: brisk walking, running, jogging, cycling, swimming, or exercise classes
- Resistance and aerobic exercise can both help decrease overall body fatness and increase lean muscle tissue.

### Maintain a healthy weight

Achieving and staying at a healthy weight are important for breast health and general health as well. Weight reduction and control require attention to both nutrition and physical activity. Fat tissue contributes to excess estrogen production. Post-menopausal women who are overweight are at increased risk for breast cancer. The goal is to maintain a healthy body weight (BMI 18-25).<sup>1</sup> Here are some tips for healthy weight control:

- Avoid eating when you are not hungry.
- Have a large glass of water before meals.
- Avoid high calorie beverages.
- Consider weight loss programs like Weight Watchers for education, monitoring, and support.
- A weight loss of 1-2 pounds per week is recommended.

### Minimize alcohol consumption

Research indicates that drinking any kind of alcohol raises your risk for breast cancer. The more alcohol you drink, the more you increase your risk. There is no safe amount of alcohol when it comes to breast cancer risk. See the Canadian Cancer Society website ([www.cancer.ca](http://www.cancer.ca)) for ways to cut down on alcohol consumption.<sup>4</sup>

### Quit smoking or don't start

Research shows that there may be a link between smoking and second-hand smoke and breast cancer. Remember:

- Avoid second-hand smoke.
- It is never too late to quit smoking.
- Seek support from friends and family, consult with your physician for assistance, and/or contact QuitNow ([www.quitnow.ca](http://www.quitnow.ca), 1-877-455-2233) for tools and resources to help you stop smoking.

### Avoid night shift work

Shift work that exposes women to light at night is a breast cancer risk factor. The biological mechanisms for this link to breast cancer are not yet completely understood, but disruptions in sleep and associated changes in melatonin production have been implicated. Avoiding night shift work, when possible, can help reduce your risk.

### Avoid hormone replacement therapy

Studies have shown that breast cancer risk is partially related to hormone exposure. Hormone replacement therapies are not recommended for long-term use, except in circumstances where other therapeutic choices are found inadequate. The decision to use hormone replacement therapy should be based on your particular needs and health, and made after a careful medical evaluation. If hormone therapy is prescribed, the lowest effective dose should be used for a limited period of time.

### Choose to breastfeed, when possible

Research has shown that breastfeeding can help reduce the risk of developing breast cancer. The protective effect of breastfeeding adds up over time. The longer women breastfed and the more children they breastfed, the less likely they were to get breast cancer.

### Eat healthy (Canada Food Guide)<sup>5</sup>

Food Groups	Adult 19-49 (servings per day)	Adult 50+ (servings per day)
<b>Fruits &amp; Vegetables</b>	7-8	7
<b>Grains:</b> e.g., ½ cup quinoa, 1 slice whole grain bread, ½ cup cooked pasta	6-7	6
<b>Meat &amp; Alternatives:</b> e.g., ½ cup cooked fish, poultry, or lean meat; ¼ cup cooked legumes; ¼ cup tofu	2	2
<b>Dairy &amp; Alternatives:</b> e.g., 1 cup milk or fortified soy beverage; ¾ cup yogurt; 1 ½ ounces cheese	2	3

### Get enough Vitamin D<sup>6</sup>

The Canadian Cancer Society recommends adults living in Canada should consider taking Vitamin D supplements of 1,000 international units (IU) each day during fall and winter. Adults at higher risk of lower Vitamin D levels should consider taking Vitamin D supplements of 1,000 IU/day all year round. This includes people who are older, with dark skin, who don't go outside often, and/or who wear clothing covering most of their skin.

### Consider chemoprevention: Tamoxifen, raloxifene, and breast cancer prevention<sup>7</sup>

Tamoxifen and raloxifene are chemopreventive medications that can be prescribed for women at high risk of breast cancer. Generally, tamoxifen may be prescribed for both pre- and post-menopausal women over the age of 35, whereas raloxifene may be prescribed for post-menopausal women. These medications block the effects of the hormone estrogen in breast tissue. However, these medications may have serious side effects for some individuals. They can only be prescribed by a doctor, so if you are interested, please consult with your physician.

#### References

1. World Cancer Research Fund. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective*. 2007. Washington DC: American Institute for Cancer Research.
2. Canadian Society for Exercise Physiology. *Guidelines for Physical Activity*. 2011. Ottawa, Canada. Available at [www.csep.ca/guidelines](http://www.csep.ca/guidelines) (Retrieved on December 8, 2012).
3. K.S. Courneya and C.M. Friedenreich (eds.), *Physical Activity and Cancer*, 13. Recent Results in Cancer Research 186, DOI: 10.1007/978-3-642-04231-7\_2 ©Springer-Verlag Berlin Heidelberg 2011.
4. Canadian Cancer Society. *Alcohol*. 2011. Available at [http://www.cancer.ca/canada-wide/prevention/alcohol.aspx?sc\\_lang=en](http://www.cancer.ca/canada-wide/prevention/alcohol.aspx?sc_lang=en) (Retrieved on December 8, 2012).
5. Health Canada. *Eating Well with Canada's Food Guide to Healthy Eating*. 2011. Ottawa, Canada. Available at <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php> (Retrieved on December 8, 2012).
6. Canadian Cancer Society. *Vitamin D*. 2011. Available at [http://www.cancer.ca/canada-wide/prevention/vitamin%20d.aspx?sc\\_lang=en](http://www.cancer.ca/canada-wide/prevention/vitamin%20d.aspx?sc_lang=en) (Retrieved on December 8, 2012).
7. Mayo Clinic. *Breast cancer chemoprevention: Medicines that reduce breast cancer risk*. 2011. Available at <http://www.mayoclinic.com/health/breast-cancer/WO00092> (Retrieved on December 8, 2012).

#### Other resources

- Canadian Breast Cancer Foundation: Prevention and Risk Reduction <http://www.cbcf.org/bc/AboutBreastHealth/PreventionRiskReduction/Pages/default.aspx>
- Siteman Cancer Center: Your Disease Risk Tool <http://yourdiseaserisk.wustl.edu/YDRDefault.aspx?ScreenControl=YDRGeneral&ScreenName=YDRbreast>
- Breast Cancer Risk Assessment Tool (Gail Model) <http://www.cancer.gov/bcrisktool/>
- Five Plus Website <http://www.fiveplusbc.ca>