
Frequently asked questions about preventing breast cancer

1. Where can I find more information and tools relating to physical activity?

Getting some exercise can be as easy as going for a walk or riding a bike. Many community centres have low-priced recreation programs for all fitness levels. Commercial gyms and fitness programs are also available throughout BC, and may be another good option.

Please consult the [Canadian Physical Activity Guidelines](#) for more information on physical activity requirements. You may find online health tools, such as My Fitness Pal, to be useful. It is free to join through the [web](#) or you can download the [mobile app](#).

2. Does eating soy food affect my risk for breast cancer?

Soy has properties that both stimulate and suppress estrogen. Studies in animals have shown mixed effects on breast cancer with soy supplements. Studies in humans have not shown harm from eating soy foods. Most epidemiological research in Asian countries—places where soy foods are commonly and frequently eaten—have shown soy intake is linked with lower breast cancer rates. However, studies in the United States shown no association. This difference is thought to be due to many people in Asian countries eating much higher levels of soy than even the highest US levels, and consuming high levels of soy foods throughout life, beginning in childhood.

Moderate consumption of soy foods appears safe for both breast cancer survivors and the general population, and may even lower breast cancer risk. A moderate amount of soy foods equates to one to three servings per day of whole soy foods such as tofu, soy milk, or edamame. However, it is best to avoid soy supplements until more research is done.

For more information, see the following:

- [American Institute for Cancer Research](#) (Your questions on soy and breast cancer answered)
- [Canadian Cancer Society](#) (Nutrition & breast cancer: Soy)

3. Does eating dairy increase my breast cancer risk?

There is no clear relationship between dairy and breast cancer. Some researchers suggest high fat content or chemicals and hormones in milk may increase breast cancer risk. Other researchers propose that vitamin D and calcium in milk have a protective effect.

More research is needed to fully understand the relationship between dairy and breast cancer. For more information, see "[Factors under study](#)," Susan G. Komen.

4. Can eating organic foods lower my risk for breast cancer?

A recent comprehensive review did not show that consuming organic fruits and vegetables was healthier or safer than eating non-organic foods. However, this is an active area of research, and more information may emerge in the future. Increased consumption of fruits and vegetables has been shown to reduce your breast cancer risk, so if eating organic food helps you eat more fruits and vegetables, then go ahead! Just be sure to wash your produce carefully, regardless whether it is organic or not. Keep in mind that canned and frozen fruits and vegetables also provide healthy options.

For more information, see the following:

- Smith-Spangler C, et al. [Are organic foods safer or healthier than conventional alternatives? A systematic review.](#) Ann Intern Med 157(5):348–366 (2012).

5. Where can I find more information on nutrition and healthy eating?

You may find these resources to be helpful:

- [Canadian Cancer Society](#) (Eating Well)
- [HealthLinkBC - Email a Dietitian or 8-1-1 Dial a Dietitian](#)
- [Canada's Food Guide \(Health Canada\)](#)
- [Canadian Diabetes Association](#) (Nutrition resources)
- [Heart and Stroke Foundation - Recipes and Healthy Eating Strategies](#)

6. Does drinking alcohol increase my risk for breast cancer?

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.

For more information, see the following:

- Canadian Cancer Society, [Alcohol & Cancer](#)

7. Does being overweight or obese increase my risk for breast cancer?

Yes. Research indicates that being overweight or obese postmenopausal women have about three times the risk of breast cancer as women who are at a healthy weight. Excess weight is one of the strongest modifiable risk factors for middle aged women.

8. Does the birth control pill increase your risk of breast cancer?

Women using birth control pills that contain both estrogen and progesterone have a slightly increased risk of breast cancer. However, this risk returns to normal a decade after the pills are stopped.

Most research on birth control pills has been done on early, higher-dose birth control pills. Research is still being conducted to find out how lower-dose birth control pills affect breast cancer risk.

Ask your physician about the risks and benefits of taking birth control pills. While taking the pill, women's risk of breast cancer, heart attack, and stroke increase; however, the pill is also associated with a decreased risk of colon, uterine, and ovarian cancer.

For more information, see the following:

- Canadian Breast Cancer Foundation, "[The pill, fertility treatment, and HRT](#)"
- Susan G. Komen, "[Birth control pill use](#)"
- Harvard School of Public Health, Your Disease Risk, "[Breast cancer risk list](#)"

9. Does hormone replacement therapy increase my risk for breast cancer?

During menopause, women may have lower levels of some hormones and may experience uncomfortable symptoms such as hot flashes, vaginal dryness, night sweats, and bone density changes. To help with these symptoms, some physicians may prescribe hormones like estrogen or estrogen with progestin or progesterone. Studies have shown that breast cancer risk is partially related to hormone exposure. Hormone replacement therapies are not recommended for long-term use in post-menopausal women, 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. For symptoms such as vaginal dryness, local hormonal treatments may be effective. For other symptoms, non-hormonal agents may be effective, especially for bone density changes.

For more information, see the following:

- Health Canada, "[Benefits and Risks of Hormone Replacement Therapy \(Estrogen with or without Progestin\)](#)"
- Canadian Breast Cancer Foundation, "[Exposure to synthetic hormones](#)"

10. Are bioidentical hormones safer than hormones used in traditional hormone replacement therapy?

Some women may be concerned about using hormone replacement therapy because breast cancer risk is partially related to hormone exposure. Bioidentical hormones, which are derived from plant chemicals and are not synthesized in a laboratory, have been marketed as an alternative, claiming to be more chemically identical to hormones produced naturally by your body.

There is no evidence that bioidentical hormones are any safer or more effective than hormones used in traditional hormone therapy. Compounded products that have identical chemical structures to synthetic hormones can be expected to have the same benefits—and risks—as traditional hormone therapies.

For more information, see the following:

- Mayo Clinic, "[Bioidentical hormones: Are they safer?](#)"
- Canadian Breast Cancer Foundation, "[Exposure to synthetic hormones](#)"

11. How does being a transgender individual affect my risk for developing breast cancer?

Research on the incidence of breast cancer in transgender individuals is limited. However, it is known that some risks for non-transgender individuals could also have an impact on breast cancer risks for transgender individuals.

Breast cancer risk is partially related to hormone exposure. Male-to-female individuals who have taken estrogen and/or progesterin for five years or more may have a higher risk than non-transgendered men, particularly if the hormones were started at a young age. Similarly, female-to-male individuals who have taken testosterone may be at higher risk than non-transgendered men of developing breast cancer because excess testosterone is converted into estrogen.

It is important that all transgender and non-transgender individuals inform their doctor if they have any family members who have had breast cancer as this too can influence breast cancer risk.

Female-to-male individuals should have mammography screening according to the guidelines in their province of residence—whether or not they have had a mastectomy—because some breast tissue remains in the chest wall even after surgery. Male-to-female individuals should have mammography screening according to the guidelines in their province of residence.

For more information, see the following:

- Dr. Susan Love Research Foundation, [“I am transgender. What is my risk of getting breast cancer?”](#)
- American Cancer Society, [“Transgendered and transsexual individuals: Access to Care and Cancer Disparity Fact Sheet”](#)

12. Does breastfeeding lower my risk of breast cancer?

Research has shown that breastfeeding does 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. However, this area has been difficult to study, and research is inconsistent.

The reduction of risk is relatively small, about 3.4% reduction for each year of breastfeeding. There is some evidence that breastfeeding may be more protective against aggressive breast cancers.

For more information, see the following:

- American Cancer Society, [“Can breast feeding lower breast cancer risk?”](#)
- Cancer Research UK, [“How is breastfeeding related to breast cancer?”](#)
- Canadian Breast Cancer Foundation, [“Pregnancy and breastfeeding”](#)

13. What is the relationship between genetic mutations and breast cancer?

Many women believe that heredity is the most important factor in developing breast cancer. However, genetic factors account for only five to ten percent of diagnoses.

Mutations in several genes have been associated with hereditary breast cancer, but the majority of hereditary breast cancers can be accounted for by inherited mutations in BRCA1 and BRCA2.

About 80% of the women who inherit mutated forms of BRCA1 or BRCA2 genes will develop breast cancer in their lifetime, usually at a relatively early age. Women with BRCA1 mutations may also have a higher risk of developing ovarian, cervical, uterine, pancreatic, and colon cancer. Women with BRCA2 mutations may also have an increased risk for pancreatic, stomach, gallbladder, and bile duct cancer, as well as melanoma. The likelihood of a harmful mutation in BRCA1 or BRCA2 is increased with certain familial patterns of cancer, including:

- being of Ashkenazi Jewish descent;
- having one or more first-degree relatives (such as a mother, sister, or daughter) who had breast cancer, especially if they were diagnosed before menopause;
- having one or more second-degree relatives (such as a grandmother, aunt, or niece) from either side of the family who had breast cancer;
- having a relative who had cancer in both breasts (bilateral breast cancer) before menopause;
- having two or more relatives who had breast cancer or ovarian cancer;
- having a relative who had both breast cancer and ovarian cancer;
- having a male relative who had breast cancer; or
- having a relative who has had other multiple cancers.

For more information, see the following:

- Canadian Cancer Society, ["Risk factors for breast cancer"](#)
- Facing Our Risk, ["Breast Cancer Risks"](#)
- National Cancer Institute, ["BRCA1 and BRCA2: Cancer Risk and Genetic Testing"](#)

14. Can inherited mutations in genes other than BRCA1 and BRCA2 increase my risk of breast and/or ovarian tumors?

Yes. Mutations in several other genes, including TP53, PTEN, STK11/LKB1, CDH1, CHEK2, ATM, MLH1, and MSH2, have been associated with hereditary breast and/or ovarian tumors. However, the majority of hereditary breast cancers can be accounted for by inherited mutations in BRCA1 and BRCA2. Overall, it has been estimated that inherited BRCA1 and BRCA2 mutations account for 5 to 10 percent of breast cancers and 10 to 15 percent of ovarian cancers among white women in the United States.

For more information, see the following:

- National Cancer Institute, ["BRCA1 and BRCA2: Cancer Risk and Genetic Testing"](#)
- American Cancer Society, ["What are the risk factors for breast cancer?"](#)
- BC Cancer Agency, ["Genetics and Hereditary Cancer Websites"](#)

15. Does being a shift worker increase my risk for breast cancer?

Research shows that women who work night shifts have a higher rate of breast cancer. In 2007 the International Agency for Research on Cancer (IARC) classified night shift work as a group 2A carcinogen after reviewing a number of human and animal studies that showed an association between shift work and breast cancer. A group 2A carcinogen is something that is considered a probable cause of cancer in humans. The mechanism of how night shift work increases cancer risk is not completely understood.

16. Does smoking increase my risk for breast cancer?

Yes. Both smoking and environmental tobacco exposure increase breast cancer risk. Exposure to second-hand smoke increases the relative risk of breast cancer in premenopausal women by 60-70%. There is also evidence that tobacco is linked with breast cancer in older women too.

17. Do parabens in personal care products increase risk of breast cancer?

Parabens are chemicals often used in small amounts as preservatives in personal care products, such as cosmetics and deodorants; in pharmaceutical products; and even in some foods and beverages. They are generally used at concentrations of 0.3% or less. All commercially used parabens are synthetically produced, although some parabens also occur naturally as preservatives in certain fruits, such as blueberries and carrots.

Parabens can enter the body through different means. They can be absorbed through the skin from using products applied to the skin or they can be ingested when consuming parabens-containing foods. They are generally quickly metabolized and excreted within hours, without building up in the body over time.

Parabens have been found to weakly mimic estrogens in animal studies. While this raises concerns because of the link between the estrogen and breast cancer, there are conflicting scientific studies about the effects of low level estrogen in humans. In 2004, a research study found traces of parabens in a small sample of human breast cancer tumours. However, Health Canada deemed this study invalid. In 2012, the US Cosmetic Ingredient Review Expert Panel re-examined its previously published safety assessment of parabens and reaffirmed the safety of parabens as preservatives in the present practices of use and concentration in cosmetics. Parabens are not presently included in the International Agency for Research on Cancer's [list of classified carcinogens](#).

Both Health Canada and the US Food & Drug Administration state that parabens are currently safe as used in personal care products. While at this time there is no evidence to suggest a causal link between parabens and breast cancer, people who are concerned about exposure to parabens can avoid products containing them.

For more information, see the following:

- American Cancer Society, [Should I be concerned about parabens?](#)
- Canadian Cancer Society, [Parabens](#)
- Centers for Disease Control & Prevention, [Parabens: Fact sheet](#)
- Health Canada, [Safety of Cosmetic Ingredients](#)
- National Cancer Institute, [Antiperspirants/Deodorants and Breast Cancer](#)
- Susan G. Komen, [Do plastics, body care products or deodorant play a role in breast cancer risk?](#)
- US Food & Drug Administration, [Parabens](#)

18. What effect do tanning beds have on breast cancer?

There has been no research demonstrating a relationship between use of tanning beds and breast cancer. Vitamin D is important both for bone health and in breast cancer prevention and tanning beds can provide Vitamin D by exposing you to UV light. However, it's hard to control the amount of UV light that you receive from a tanning bed, and use of these beds will put you at greater risk for skin cancer. Indoors or outdoors, there's no safe way to get a tan. Recommended sources of vitamin D include foods (for example, salmon and other oily fish), a Vitamin D supplement, and safe sun exposure.

For more information, see the following:

- Canadian Cancer Society, [Indoor Tanning](#)

19. Can taking narcotic drugs affect my risk for breast cancer?

We are unaware of any studies that have found an increased or decreased risk of breast cancer in women who have a history of using narcotic drugs.

20. What is ionizing radiation and how does it affect breast cancer risk?

Ionizing radiation is energy waves or particles that are strong enough to remove electrons from atoms. Some examples include radioactive materials, x-rays and CT or CAT scans (series of x-ray images), and PET scans (uses low-dose radioactive sugar).

Medical exams that do not use radiation include MRIs and ultrasounds.

Only a small percent of breast cancers are caused by ionizing radiation. This increased risk must be weighed against benefits.

21. How can I reduce my exposure to ionizing radiation?

If you are concerned about medical radiation, ask your physician or radiation expert if the test is necessary. In some cases, a recent similar test may provide the information needed.

22. Does non-ionizing radiation affect breast cancer risk?

Non-ionizing radiation does not have enough energy to remove electrons from atoms. Examples of non-ionizing radiation include energy emissions from power lines, radio, radar, cell phones, and microwaves. There is no scientific evidence linking non-ionizing radiation to cancer.

For more information, see the following:

- Program on breast cancer and environmental risk factors (archived site), [“Ionizing radiation and breast cancer risk”](#)
- Canadian Cancer Society, [“Medical radiation”](#)
- US Centres for Disease Control and Prevention, [“Ionizing radiation and diagnostic examinations”](#)

23. What role does stress play in breast cancer?

Researchers have not found a link between stress and breast cancer. Although the subject has been studied extensively, research findings are mixed. However, we know there is a relationship between mind and body.

Controlling stress can help improve your quality of life, and decreasing stress is recommended.

24. Where in BC can I get a mammogram?

BC's Screening Mammography Program has [clinics located throughout BC](#). You can [email or call for an appointment](#).

25. Do breast self-examinations reduce breast cancer deaths?

Research shows that breast self-exams do not reduce the risk of dying from breast cancer. In fact, it may result in unnecessary biopsies and treatments for lumps that are not cancerous. Although breast self-exams are not an effective screening method, it is good to know your body and be aware of changes.

For more information, see the following:

- Cancer Research UK, "[How do I check for cancer?](#)"
- World Health Organization, "[Breast cancer: Prevention and control](#)"

26. Am I eligible for a mammogram?

The BC Screening Mammography Program has updated its [screening mammography guidelines](#). It is recommended that BC women ages 40 to 74 with a family history of breast cancer in a first degree relative (mother, sister, or daughter) receive annual screening. BC women ages 40 to 49 are also [eligible](#) for regular mammograms. Screening is recommended every two years for women in this age group, but these women are encouraged to make an informed choice by speaking to their primary health care provider to discuss the benefits and limitations of screening. BC women ages 50 to 74 should be screened every two years. BC's Screening Mammography Program has [clinics located throughout BC](#). You can [email or call for an appointment](#).

27. Can mammogram make breast implants rupture?

It is very rare that a mammogram will rupture breast implants. However, you should make sure your radiologist and mammography centre have experience with implants.

The [BC Cancer Agency recommends](#) you go to a screening location where they routinely screen women with implants. If you have implants, you will not be able to make an appointment directly with the BC Screening Mammography Program. Contact your physician for a referral. Before the procedure, be sure to let the centre and radiologist know that you have implants.

For more information, see "[Breast implants: Do they affect mammograms](#)".

28. Where can I find more information on chemoprevention?

Please review the information available from the [Mayo Clinic](#) for more information on chemoprevention.

29. Where in BC can I get treated for breast cancer?

The [BC Cancer Agency](#) provides a comprehensive cancer control program for the people of BC in partnership with regional health authorities.