

Breast Cancer



CCNM
Canadian College of
Naturopathic Medicine

Integrative
Cancer
Centre

Functional Foods

1. Brassica (cruciferous) family of vegetables
 - Includes: bok choy, Brussel sprouts, broccoli, broccoli sprouts, cabbage, cauliflower, kale, collard and mustard greens, radish, turnip, watercress, kohlrabi, arugula, rapini, rutabaga.
 - Contains: *Glucosinolates*, such as Indole-3-Carbinol (I3C) and Sulforaphane, which have been found to have potential breast cancer preventative effects. They have also been found to reduce harmful estrogens metabolites.
 - **Recommendation: eat at least 1-2 servings from this family daily, cooked or raw.**
2. Soy
 - Minimally processed, organic soy: edamame, tofu, tempeh, soymilk, soybeans, soy nuts, miso.
 - Contains: *Isoflavones* that interfere with multiple pathways of cancer growth and invasion. They bind weakly to estrogen receptors, blocking estrogens and xenoestrogens from binding more strongly. Population studies have shown reduced risk of breast cancer recurrence in women who regularly eat soy. Women who eat soy regularly also appear to have less hot flashes.
 - **Recommendation: 1-2 servings per day.**
3. Ground Flax Seed
 - Contains: *α-linolenic acid* (an essential omega-3 fatty acid), *lignans*, and *soluble fiber*. Like soy isoflavones, flax lignans have been found to inhibit estrogenic activity and reduce the production of more harmful estrogen metabolites. Eating flax regularly has been shown to reduce the risk of developing breast cancer and may also inhibit the growth and spread of breast cancer cells.
 - **Recommendation: 2 tablespoons daily of ground flaxseeds.** These can be added to juice or smoothies, sprinkled on salads, or mixed in oatmeal. Store in the freezer to maintain freshness.
4. Green Tea
 - Contains: *polyphenols*, such as EGCG, which are potent antioxidants that have been shown to interfere with cancer cell growth and development through multiple pathways. Regularly drinking green tea may help reduce recurrence risk in those with early-stage breast cancer.
 - **Recommendation: 3-5 cups per day of organic green tea** (can be flavoured or decaffeinated)
5. Mushrooms (any, but especially white button mushrooms)
 - Contains: compounds that lower estrogen levels in breast cancer cells and inhibit the production of estrogen as well. Eating mushrooms regularly has been associated with a decreased risk of getting breast cancer.
 - **Recommendation: Consume one large container of mushrooms (about 500 grams) per week or about 5 mushrooms a day, cooked.**
6. Walnuts
 - Contains: *Ellagitannins*, *gamma-tocopherol* and *healthy fats* that may reduce oxidative stress, inflammation, and gene expression that can lead to breast cancer. A study found eating walnuts reduced the risk of developing breast cancer and also slowed the growth of breast cancer cells.
 - **Recommendation: 2 ounces or 55 grams of walnuts per day**

Diet

- Intermittent Fasting, IF (cycling longer periods between eating and not eating):
 - Population studies have found that fasting for at least 13 hours each night, between dinner and breakfast, can reduce the risk of breast cancer recurrence.
 - IF lowers insulin and insulin growth factor levels, blood pressure, cholesterol, blood sugar and supports a healthy weight and appetite.
 - Other ways to use IF: intermittent calorie reduction (i.e. 50-70% reduction a few days per week), 8 hour eating window, 2 x 90-minute eating window/day, longer daily fasts (24-36 hours), etc.
 - **Recommendation: consult your naturopathic doctor before starting any fasting routine.**

- Carbohydrates
 - Some studies have found associations between high carbohydrate diets (especially diets high in simple carbohydrates and added sugars) with higher insulin, insulin resistance, obesity, insulin growth factors and breast cancer rates.
 - **Recommendation: replace all simple/processed/refined carbohydrates with complex/unprocessed/whole ones. Speak with your naturopathic doctor about how many grams of carbohydrates you should consume each day.**
- Avoid/Limit:
 - Ultra-processed foods (e.g. “fast” foods and “junk” foods)
 - A 2018 study found an 11% increase in risk of developing breast cancer in those who consume ultra-processed foods.
 - Refined, processed, or added sugars
 - These are associated with inflammation, weight gain, more body fat, and higher insulin and insulin growth factor levels, all of which can contribute to cancer cell growth.
 - Includes all forms of sugar: cane sugar, honey, maple syrup, brown sugar, etc.
 - Alcohol
 - Alcohol consumption has been strongly linked to increasing breast cancer risk. Studies show that the higher consumption, the higher the risk. If you must consume alcohol, aim for less than 3 drinks per week.
 - Red meat
 - Red meat is considered a class 1 carcinogen. If you must eat red meat, limit your intake to once or twice per week and choose leaner, organic, grass-fed options.
 - Dairy
 - Higher intakes of milk have been associated with an increased risk of breast cancer and recurrence. If you must have dairy, choose organic cheeses and yogurts.

Exercise

- Breast cancer survivors who are physically active are less likely to die from breast cancer than women who are inactive. Numerous studies support regular physical activity during and after breast cancer treatment, to improve overall outcomes.
- During treatment: Consider exercise as part of your treatment. Studies support exercising during cancer treatment showing a significant impact on your health and quality of life over the long term. Walking can be sufficient and has been shown to improve energy levels during treatment.
- **Recommendation: 30 minutes of exercise, 5-7 days of the week** (minimum 150 minutes per week) where heart rate and breathing are elevated. This can be divided in smaller periods. Monitor your recovery period, which should be shorter than the duration of the activity itself. Speak with your naturopathic doctor about specific exercise recommendations for you.
- If your goal is to gain muscle mass, replace a 30-minute cardiovascular activity with resistance (strength) training, at least twice a week.

Lifestyle

- Chronic stress can lead to an overproduction of cortisol and epinephrine, which can cause poor blood sugar management and increase body fat
- The following are tools that can help you feel calmer and better manage your stress:
 - Gratitude journaling, meditation, prayer, volunteer work, hobbies
 - Spending time in nature – gardening, walking/hiking, even just sitting
 - Mindfulness-Based Stress Reduction (MBSR) programs have been shown to reduce objective stress markers such as cortisol and pro-inflammatory markers in breast cancer survivors.
 - Laughter, even forced laughter reduces stress!

Resources

- Environmental Working Group:
 - **The Dirty Dozen List of Endocrine Disrupters** (and how to avoid them)
 - **Skin Deep®** is a useful site for choosing clean personal care products