

Breast cancer will affect one in eight Australian women, but – as devastating as this statistic is – changing nutrition strategies can greatly reduce your risk.

Outsmart

1. Increase soy foods

There is some confusion surrounding whether or not soy is beneficial or harmful when it comes to preventing breast cancer. The main reason for this is because soy can have a mild oestrogenic effect on the body, which is why they are known as phytoestrogens. However, they also possess cancer-protective phytonutrients as well as anti-oestrogenic properties. Separating fact from fiction, the best available science today shows soy is protective against breast cancer recurrence and is associated with better survival rates. One study concluded that the consumption of just one cup of soy milk per day reduced the risk of dying from breast cancer by up to 38 percent. Additional studies have shown that women who ate the most soy products had a 29 percent lower risk of dying from breast cancer and a 36 percent lower risk of cancer recurrence. How does soy do this? When 95 percent of breast cancers strike, they essentially turn off our BRCA genes, which are cancer-suppressing genes responsible for DNA repair. The phytonutrients in soy, however, have the ability to turn these genes back on, enhancing our ability to halt cancer in its tracks.

2. Add flax

Whether used in baking, smoothies or sprinkled on yoghurt, flax is a versatile breast cancer preventive. A little seed with big benefits, flax has not only been associated with a reduced risk of breast cancer but has also been shown to increase survival rates of those who have already been diagnosed. In one clinical trial, flaxseeds were found to have the potential to reduce tumour growth in breast cancer patients in just a matter of weeks. Other studies show flax can play a role in preventing the spread of or retarding the growth of carcinogenic cells. It is the lignans in flax that appear to be responsible for its amazing anticancer benefits. One study showed that the more lignans that were circulating in the bloodstream of breast cancer patients, the better their prognosis was. The way in which flax can inhibit or delay the growth of breast cancer is not yet fully understood, but it is thought the lignans modulate oestrogen signalling, which plays a role. In one clinical trial, researchers concluded

that flaxseeds might be a potential alternative or addition to currently used breast cancer drugs. Just one teaspoon of ground flaxseed per day could be all you need to reap its incredible anticancer benefits.

3. Up your alliums

Two families of vegetables that have been shown to play a pivotal role in breast cancer prevention are the alliums (onions, garlic, leeks, chives, shallots and scallions) and the crucifers (cauliflower, cabbage, bok choy, broccoli,

and Brussels sprouts). Just one serving per day could be effective: a study that followed thousands of breast cancer survivors found that women on tamoxifen (an anti-breast cancer drug) who ate one out of their five daily servings of fruits and veggies as broccoli, cauliflower, collards, cabbage or kale, reduced their risk of the cancer returning by half.

4. Eliminate toxins

Studies show the risk of breast cancer increases when there's a decrease in bowel movements. One study of over 28,000 women found that frequent bowel movements (three or more per day) were associated with a 46 percent decrease in the risk of breast cancer compared to those women who only had one bowel movement per day. Carcinogenic bile acids in our intestines have been found in high concentration in the fluid of breast cysts, and these bile acids have an oestrogenlike cancer-promoting effect. How can we rid ourselves of these toxic bile acids? By pooping more! Bile acids are excreted when we excrete, so increasing bowel movements by way of consuming more fibre will help rid our bodies of these toxic substances. Fibre is exclusively a plant nutrient so eating more plants is a good start. Eat a variety of high-fibre plants that contain both soluble and insoluble fibre, such as whole grains, brown rice, bran, apricots, apples, nuts, seeds, legumes, cauliflower, dark leafy greens, blueberries, and sweet potatoes.

A study looking at the survival rates of women with breast cancer found that those with the highest isoflavone intake had the lowest mortality rates.



Squash is a brilliant source of manganese, which is required to produce the powerful antioxidant immune system supporter, superoxide dismutase.

5. Avoid xenoestrogens

These are synthetic endocrine-disrupting substances that exhibit oestrogen-like activity in the body, which can contribute to a women's risk of developing breast cancer. These 'fake' oestrogens fit into oestrogen receptors in the body, essentially switching them on. Plastic containers are a potent source of these xenoestrogens, as are pesticides, industrial pollutants and hormone residues in meat, poultry and dairy products. Avoid xenoestrogens by using glass containers whenever possible (just because it's BPA-free plastic doesn't mean it's free from xenoestrogens), choose organic fruits and veggies, and, if you eat meat or dairy, choose hormonefree and organically raised products.

6. Cut cholesterol

Elevated cholesterol levels are also a risk factor for developing breast cancer. Cancer tumours are essentially able to 'feed' on cholesterol by taking up LDL ("bad" cholesterol). A large study found that women who had cholesterol scores of over 240 had a 17 percent increased risk of developing breast cancer compared to those who had a score of 160. Cancer has been shown to be so effective at consuming cholesterol that LDL has even been considered as a vehicle for transporting anti-cancer drugs to tumours. Cancer patients typically show much lower levels of cholesterol, thanks to the tumour gobbling it up, perhaps the reason why survival in breast cancer patients is lowest when LDL uptake is highest. How do we go about reducing our cholesterol? Eating a plantbased diet that includes lots of fibre as well as plant foods rich in phytosterols such as sunflower and pumpkin seeds can help.

7. Nurture melatonin

Some fascinating studies have shown how electric light, which emits a blue hue, can be a risk factor for developing breast cancer. There is actually a logical explanation for this strange phenomenon: melatonin production. Melatonin has been shown to suppress cancer growth and when we are exposed to too much artificial or 'blue' light, our pineal gland, which is responsible for the production of melatonin, doesn't receive the signal to produce this valuable hormone. Indeed, one study showed that blindness is protective against breast cancer. Conversely, another study showed that shift workers who work in the middle of the night have an increased risk of developing cancer. What can we do about this when we have become a society that lives on our blue light-emitting phones, tablets, computer screens and televisions before bed? Plus, some foods decrease melatonin production: meat and dairy. But reducing these foods is probably not effective enough in altering your production of melatonin so you may want to consider purchasing some blue light-blocking glasses and wearing them before bed to kick your pineal gland back into action.

8. Rediscover mushrooms

Inexpensive, delicious, and readily available, the humble white button mushroom has been shown to have the ability to combat the risk of developing breast cancer. They do this by inhibiting the enzyme aromatase that breast cancer cells use to grow. In fact, aromataseinhibiting drugs are often used in chemotherapy. How many mushrooms does it take? Just five a day is all you need to eat to potentially protect yourself from developing breast cancer.

9. Add apples

An apple a day has been shown to reduce the risk of developing breast cancer. Too good to be true? The truth is that apples possess antimutagenic, antioxidant, anti-inflammatory, and immuneenhancing properties, which all inhibit cancer in various stages of its growth. Plus, this delicious fruit appears to work best on oestrogen receptornegative breast cancer, which is much harder to treat than oestrogen receptor-positive cancer. Researchers have shown that just one apple a day might be protective - but be sure to eat the peel, as this is where most of the anti-cancer phytonutrients reside.

10. Curb alcohol

A meta-analysis comparing light drinkers to nondrinkers found that alcohol was associated with an increased risk of breast cancer. Even a single drink per day may be associated with an increase in risk. Alcohol increases the levels of oestrogen and other hormones associated with hormone receptorpositive breast cancer, thus increasing a woman's risk. Try having at least two alcohol-free days per week and limiting your intake to no more than two drinks per day when you do indulge **1**



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