

# Breast Cancer and Pesticides

## Your chances

The Canadian Cancer Society estimates that currently one in nine females has a lifetime risk of being diagnosed with breast cancer. Male breast cancer is very rare at one percent of all cancers in males (1).

Are more diagnoses being made mainly because of better detection methods? Possibly, but the steady rise of breast cancer cases since the 1940s pre-dates mammography, so better detection does not explain why breast cancer has become so common (2).

## Causes and risk factors

Only about five percent of breast cancer cases in females is passed on by the breast cancer gene (2). Other causes are more difficult to predict and to prove. Exposures to high doses of chest X-rays, alcohol and tobacco use are all recognized risk factors. Organochlorine pesticides and other environmental toxics are highly suspect as further possible causes.

Timing of events in one's reproductive history is also tied to the likelihood of developing breast cancer, and so this can be considered to be a risk factor. Timing of such events as births and age at menopause also gives an indication of lifetime exposure to estrogen, another possible cause of breast cancer (2).

## Pesticides that mimic estrogen are bad news

But isn't estrogen a good thing for women? While it is essential for female reproductive functions, it can trigger and or feed some types of breast cancers.

Like cholesterol, 'good' and 'bad' estrogens are manufactured by the body. 'Good-estrogen'-production can be stimulated by eating foods such as soya beans and broccoli, that break down quickly in the body and seem to protect against breast cancer.

'Bad-estrogen'-production can be stimulated by synthetic estrogens in birth-control pills and estrogen replacement therapies, and also by the presence of some estrogen-mimicking organochlorine pesticides, plastics and bonding agents in detergents and paints (2).

Pesticides are commonly found in our food, indoor and outdoor air, drinking water, and of course in insect repellants applied to our skin (3) (4). Some do not break down easily in the environment, and can accumulate up the food chain where they are stored in our fat.



## Reducing the chances of breast cancer

Sadly, an effective way to rid our breast fat of pesticides suspected of causing breast cancer is to breast-feed (5) (6), but now breast milk has become the most contaminated of all human foods (5).

So should women still breast-feed? Generally, yes! Women who have breast-fed tend to have less breast cancer, likely and at least partially because of the downloading of toxics, including pesticides. Nevertheless their babies still tend to be healthier than their formula-fed peers (5) (6). Unfortunately, though, the milk of some women, especially those in the high Arctic, has become quite seriously contaminated (7).

How can women minimize exposure to pesticides?

Eat organically produced food, and don't use pesticides on your skin, in your homes or on your gardens. There are alternatives that work, and don't forget that chemical pesticides are a relatively recent invention.

Contact your municipal, provincial and federal government representatives and tell them you want immediate and effective protection from the dangers of pesticides, and that all need to be re-evaluated for their bio-accumulative potential as toxics now, not later. The federal Commissioner for the Environment has warned that the federal government is not properly protecting us from the risks of these chemicals (8).

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## References

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