

# Stop Cancer Where It Starts

A programme by Breast Cancer network which aims to reduce the risk of breast cancer

## REDUCE YOUR BREAST CANCER RISK *everyday actions for New Zealand women*

New Zealand women have one of the highest incidence rates of breast cancer in the world - about a 1 in 10 risk over a lifetime. The breast cancer risk for a child who comes to New Zealand from a low-incidence country increases to the same as a person born in NZ. It is not clear why our rate is so high but there are clues in the western lifestyle and the wider environment. There is good evidence that certain lifestyle changes can reduce our risk by some degree. We can make a choice about these. It's not as simple for individuals to reduce the influence of chemicals and oestrogen-like substances

(endocrine-disruptors) that surround us. Breast Cancer Network believes that women should be fully informed about all these factors.

This brochure focuses on areas that are often (but not always) within the power of an individual to change. The suggestions in this leaflet are grouped according to the degree of evidence supporting them.

**Take the quiz** - find out how well informed you really are about breast cancer risk.

### Breast Cancer Risk Quiz

*Tick the items on the list that might decrease your risk of breast cancer and put a cross against items that might increase your risk.*

- |                        |                       |                            |                       |
|------------------------|-----------------------|----------------------------|-----------------------|
| Drinking alcohol daily | <input type="radio"/> | Passive smoking            | <input type="radio"/> |
| Smoking                | <input type="radio"/> | Being childless            | <input type="radio"/> |
| Exercise               | <input type="radio"/> | HRT                        | <input type="radio"/> |
| Weight gain/obesity    | <input type="radio"/> | Plenty of vegetables       | <input type="radio"/> |
| Breast feeding         | <input type="radio"/> | Loss of ovaries            | <input type="radio"/> |
| Olive oil              | <input type="radio"/> | Early age for first period | <input type="radio"/> |
| X-rays                 | <input type="radio"/> | Late age for menopause     | <input type="radio"/> |
| Toxic chemicals        | <input type="radio"/> | Fish Oil                   | <input type="radio"/> |
| Green Tea              | <input type="radio"/> | Nuclear fallout            | <input type="radio"/> |
| Teenage pregnancy      | <input type="radio"/> | Mother has breast cancer   | <input type="radio"/> |
| The Pill               | <input type="radio"/> |                            |                       |

*Now check over the page to see which factors influence breast cancer risk or see quiz results on the last page. Was there something you didn't know? Pass it on to other people. If the message about risk factors can be spread around, people have a chance to do something about it. Read on to learn more about these risk factors.*



*Breast Cancer Network is an independent group of ordinary New Zealand women, most of whom have experienced breast cancer. We promote the issues and needs of those personally affected by breast cancer, advocate for improved treatment, and work towards preventing the disease for the benefit of the whole community.*



Breast  
Cancer  
NETWORK NZ

## Firm Evidence

There is general agreement from the scientific community that the evidence about these factors is reliable. Even so, over time opinion may change as more research results come to hand. We list here only those factors which can be influenced by life-style choices, leaving aside factors such as previous benign breast disease, family history, late age of menopause and early age of menarche.

### *Increases risk*

- Obesity, weight gain
- HRT
- Drinking alcohol
- Oral contraceptives for 10 years or more
- Childless or children after 30
- Ionising Radiation (includes x-rays)
- Smoking
- Passive smoking (Environmental Tobacco Smoke) for breast cancer in younger women

### *Decreases risk*

- Full term pregnancy before 20 years
- Breast feeding for as long as possible

\* Chemicals which have been shown to influence breast cells in laboratory animals include components of plastics, food preservatives, timber treatments, fumigants, flame retardants, solvents, herbicides, pesticides, hormones, cosmetic additives, burnt food, dioxins, and PCBs. In laboratory experiments, at high doses, some chemicals cause cancers to develop, others stimulate the growth of existing cancer cells, and others disrupt cellular function causing higher cancer susceptibility. The combined effect of a “cocktail” of chemicals has not been frequently studied - it’s an “unknown” and a difficult area to research.

## Limited Evidence

This group of factors is supported by a reasonable degree of evidence - but insufficient to yet be accepted as firm evidence. The position of these factors will eventually be clarified, but can we wait? It is likely that a number of factors combine to cause breast cancer and they may begin early in life. We are unashamedly promoting a “precautionary approach”. This challenges the idea that there must be complete proof before taking action. “Act now - proof later” may be a maxim that will protect our daughters better than “wait for firm evidence,” and these actions will do no harm.

### *Increases risk*

- High fat, high red meat diet
- High dairy intake
- Oestrogen-disruptor chemicals\*
- Toxic chemicals\*

### *Decreases risk*

- Mediterranean diet including olive oil
- Low fat, high vegetable/fruit diet
- Green tea
- Fish oils
- Exercise, especially when young

## Other Factors for Healthier Living

Not yet sufficiently studied to make firm claims relating to breast cancer, these factors can make a positive difference to general health. BCN does not hesitate to recommend these actions.

### *Avoid*

- Too many food additives
- Preserved meats (nitrates added)
- Trans (hydrogenated) fats
- Highly refined food
- High intake of salt and sugar
- Charred meat, highly browned food
- Stale or rancid food
- Plastics in the microwave
- Cosmetics with phthalates
- Mineral oil and parabens in skin products
- Petrol fumes, vehicle exhaust
- Toxic chemicals
- Burning rubbish
- Unnecessary x-rays
- Sunburn
- PVC

### *Use*

- Organic or freshest possible food, plenty of water
- Nuts, seeds, pulses
- Cold pressed oils, especially olive oil
- Grainy breads, less-refined cereals
- Herbs, spices
- Fish
- Highly coloured fruits and vegetables
- Steamed and baked vegetables
- Safer cosmetics and deodorant stone/crystal
- Meditation
- Keep cars well tuned, care when refuelling
- Safe garden sprays and household cleaners
- Composting, recycling, re-using, safe disposal
- Ask for lead apron over rest of body during x-rays
- Short daily sun exposure at cooler times of day
- Dietary supplements

## HOW MUCH EFFECT DO THESE FACTORS HAVE?

There are several means of expressing risk. Relative risk (RR) is a comparison of the incidence of the disease in people with a trait, against the incidence of the disease in people without the trait. People without the trait will have a RR of 1. If the RR is greater than 1 (>1) the risk is higher than the group without the trait. If the RR is less than 1, (RR<1) the risk is lower than the group without the trait. The RR values of several traits cannot be simply combined to give a total figure. However the factors do interact together. All the risk factors listed here affect risk weakly to moderately, compared with factors that affect risk strongly, examples of which are certain patterns of family history, genetic susceptibility, certain previous breast diseases, exposure to high levels of radiation.

## Firm Evidence Factors

### with risk expressed as Relative Risk

- Obesity and weight gain after 18 RR 1.2
- Alcohol (Moderate drinker) RR 1.7
- HRT (Current use >3 years) RR 1.5
- Childless or first child at over 30 years RR 1.9
- Breast feeding total of >1 year RR 0.8
- Smoking RR 1.46
- Passive smoking (now known as ETS  
- environmental tobacco smoke) RR 1.68

### For comparison:

Previous benign breast disease (not cancer) RR 1.5 - 4.0  
(depending on type of benign disease)

Family history with first degree relatives RR 1.7 - 5.0  
(depending on their age at breast cancer diagnosis, and other factors)

## Limited Evidence Factors

Exercise >3 hours/week RR 0.8

Examples: If you are currently using HRT and have used for more than 3 years your risk will be one and a half (1.5) times, or 50%, higher than someone who has not used HRT for more than 3 years .

If you breast-fed your children for a total of 1 year or more your RR is 0.8, and the risk level of getting breast cancer is reduced by 20%. (The benefit grows if you breast feed for a longer total time.)



## TAKE A BIG BREATH, SMILE, AND MAKE A LIFE TIME PLAN

Breast Cancer incidence in young women is low, but the environment when we are young and our early lifestyle choices influence risk of the disease later on. We suggest women develop a long term plan based on healthy choices. Start with a nutritious diet, exercise regularly, reduce alcohol, and reduce the chemicals in your air, food, water, skin, hair and cleaning products. Breastfeed your children and bring them up to regard healthy choices as natural.

## Factors with Firm Evidence

### OBESITY

Obesity after menopause increases breast cancer risk. This is thought to be related to higher levels of oestrogen produced by fatty tissue. Although obesity before menopause does not increase risk, there is good cause to avoid obesity for the sake of general health.

### ALCOHOL

Risk rises with rising consumption. Even one standard drink per day raises risk a little.

### HORMONES

The female hormone, oestrogen, has an important influence on breast cancer risk. If menstruation begins at younger than 12 years and/or menopause is later than 55 years, exposure of breast cells to natural oestrogen is longer than usual and influences breast cancer risk. If a woman has no children or has them after the age of 30 years, exposure to oestrogen is increased and this influences risk. There is even some increased risk associated with having a larger birth size, possibly associated with longer exposure to oestrogen in the womb. There is not much we can do about this type of exposure with our present level of knowledge. But we can do something about synthetic hormones.

### SYNTHETIC HORMONES (HRT and The Pill)

It has now been established that HRT treatment for menopause symptoms raises the risk of breast cancer and is best avoided. Many women do not need any treatment at menopause. Some find that symptoms are short-term and that evening primrose

oil, black cohosh and other alternative remedies are enough for relief. However short term use of HRT may still be recommended by doctors in some circumstances, for women who have not had breast cancer. Caution is advised with herbal treatments. Black cohosh may be effective for reducing hot flushes but safety data for the herb is not yet conclusive.

Taking the contraceptive pill for more than 10 years raises breast cancer risk slightly. For most women the risk is small so the pros and cons can be weighed up like any other medication. There is debate as to whether the pill is safe for women at risk of inherited breast cancer. This should be discussed with a specialist.

## Breast Cancer Incidence in the United States at different ages

The Risk of Getting Breast Cancer (source: National Cancer Institute) from [www.winabc.org](http://www.winabc.org). Risk for New Zealand women is only a little lower. However it is good to remember that about 90% of New Zealand women do not get breast cancer.

- By age 25 1 in 19,608
- By age 35 1 in 622
- By age 45 1 in 93
- By age 55 1 in 33
- By age 65 1 in 17
- By age 75 1 in 11
- By age 85 1 in 8

Some hormone treatments from the past have been found harmful, particularly DES (diethyl stilboestrol) which was once thought to prevent miscarriage. Women given DES, and their children, maybe at higher risk of breast cancer as well as other cancers. If a doctor recommends a hormone treatment, ask about the breast cancer risk before accepting it.

There has been considerable interest about reported benefits of natural progesterone creams for menopause symptoms. Although the proponents of natural progesterone report the treatment is based on sound science, there is as yet not much peer-reviewed information in the medical literature. Some breast cancer tumours are stimulated by progesterone, so it seems advisable if using these creams, not to put them near the breast.

### **Use of oestrogen creams for dry vaginal tissue after menopause**

If lubricants such as Astroglide are not sufficient and oestrogen cream is needed, ask for creams containing a less active type of oestrogen called oestriol and use just a little applied with the finger. The Estring (Pfizer) - an oestrogen slow-release vaginal device thought to be safer - is only available in New Zealand as an unsubsidised Section 29 prescription product.

### **X-RAYS AND IONISING RADIATION**

X-rays can cause breast cancer. However, modern x-ray technology has made mammography, lung and dental x-rays and other simple x-ray procedures much safer than in the past. The benefits of mammography outweigh the risks and Breast Cancer Network recommends women join the BreastScreen Aotearoa screening programme at the age of 45. High dose procedures are CT or CAT scans, radiotherapy, and any longer procedure where the x-ray machines are left on for the duration. Avoid repeated CT scans if possible. Although there is no safe minimum dose for x-rays, risk increases with dose. It is recommended that women ask for a lead apron to protect the upper body while other parts of the body are being x-rayed. (See notes about children.)

### **PREGNANCY AND BREAST FEEDING**

From pre-puberty until birth of the first full-term baby, a young woman's breast cells are immature and more susceptible to damage from outside factors such as x-rays, alcohol, hormones and other chemicals. Such damage may initiate changes that lead to cancer many years later. Although breast cancer can occur during pregnancy, a full term pregnancy before the age of 20 decreases breast cancer risk. No gains are made if pregnancy occurs after 30 years. Breast feeding children for a total of 12 months or more reduces a mother's risk - it's good for babies and good for women. It is a disgrace that breast milk worldwide contains environmental chemicals, but the benefits of breast feeding to child and mother still mean that breast is best.

### **SMOKING**

There is now good evidence that smoking and exposure to cigarette smoke (ETS) affect breast cancer risk especially in pre-menopausal women. Smoke exposure when young particularly influences this risk. We recommend stopping or reducing smoking, and protection of children from exposure to tobacco smoke.

## **Factors with Limited Evidence**

### **DIET**

Breast Cancer Network recommends the following:

Eat a wide variety of foods that includes all the essential food groups, and fresh seasonal foods when they are available.

- **Grow your own vegetables or look for certified organic food**, especially fruit and vegetables, cereals, grains and bread and tea. **Otherwise**, buy the best quality and freshest produce you can afford. Many households have room for a few fruit trees, seasonal vegetables and herbs in garden or pots.
- **Eat at least 5 servings per day of fresh fruit and vegetables**, but aim for nine plus. See our sample menu if you think this sounds impossible. A serving is what you can hold in a cupped hand - therefore, children's servings can be smaller. Home-made salads are easy to make and very nutritious. Dressings can be made with lemon juice or cider vinegar with olive oil and seasonings. Sauces can be made from low-fat, high-nutrition foods such as tomatoes, mushrooms, onions, herbs and spices, and these might make up one serving of vegetables. Be sure to include brightly coloured fruits and vegetables and lots of green leafy vegetables.
- **Meats, proteins and fats:** Restrict preserved meats which contain nitrates or nitrites and smoked foods. Use lean cuts of red meat and keep intake down. Use NZ beef, which is free of synthetic hormones. Use chicken, fish, pulses (dried beans and lentils), free range eggs, nuts and seeds, a moderate amount of dairy products (low fat varieties for adults), olive oil, modest use of butter. Choose cold-pressed oils which contain natural anti-oxidants rather than highly refined oils. Fish oils are high in Omega 3 fatty acids and regular intake may reduce breast cancer risk.

Eat Brazil nuts which are rich in selenium, an anti-oxidant that is deficient in NZ soils. Walnuts contain essential Omega 3 fatty acids. Seeds are rich in minerals such as zinc and magnesium.

Never eat stale or rancid foods or fats, taking special care with nuts and seeds. Rancidity leads to formation of free radicals in the body. Avoid trans and hydrogenated fats for the same reason. Trans fats are not always listed on labels but are found in margarine, manufactured foods and baked goods.

- **Choose less-refined grains** such as rolled oats, bran cereals, stone-ground wholemeal breads and flours, and grainy breads. Try to find organic versions when possible. Keep stone-ground and organic flours in the fridge to slow down the process of rancidity that develops from the oily, nutritious germ of the grain.
- **Moderate use of soy** foods is thought to be safe, but soy has oestrogenic properties, and the evidence for safety is not entirely firm. Choose "whole" soy foods rather than soy derivatives such as genistein. If you prefer to buy GE-free food, choose soy products labelled GE Free or organic.
- **Go lightly with alcohol** - breast cancer risk rises with the degree of alcohol use. Even one standard drink per day raises risk slightly.

\* New Zealand beef cattle are not given growth hormones - therefore, New Zealand beef is a better choice for this reason.



- A “Mediterranean” diet appears to be protective against breast cancer - This includes olive oil, fish, tomatoes, aubergines, pulses, capsicums, and pasta, etc.
- **Reduce sugary foods.** Use raw sugars or honey in preference to white sugar. The chemical sweeteners - aspartame or saccharine - are best kept to a minimum.

### **Fresh, natural, organic is best**

It takes commitment and effort to eat healthily. Mass-produced and convenience foods are cheap, fast and easy to prepare. They often contain preservatives so have amazingly long shelf lives, raising doubts over the meaning of “fresh food”. BUT production processes such as heating, refining, extracting, drying, and preserving result in lower nutritional value. Many have too much salt, sugar, and unhealthy fats.

*“Choose fresh foods that dont keep well and use them quickly”* - a slightly odd but sound principle for good nutrition.

Do we buy poor food because of seductive advertising, lack of knowledge, busy lifestyle, cheap prices or bad habits? We can do better, with some planning and learning.

### **Read the labels - avoid additives if possible**

Learn to understand food labels.\* It is useful to think about why the artificial chemical flavours, colours, thickeners, etc. are added. Do consumers prefer long shelf life, enhanced colours and flavours, instant food more than good nutrition? Perhaps we are just too busy to think about our diet.

### **GE, methyl bromide, chemical residues, endocrine disruptors**

The long-term effects of GE foods are unknown. GE components are likely to be in manufactured products, especially maize and soy in products from overseas. Best to avoid. Write to Greenpeace for a list of GE free products.

Methyl bromide is used to fumigate all imported fruits and vegetables - best to avoid these, or eat only on special occasions, after washing thoroughly or removing the skin.

There are chemical residues in New Zealand produce. While exported produce meets overseas standards for residues, the domestic market is not required to. The jury is still out over whether these chemicals will harm us. Many are toxic in large doses - what about small doses taken unwittingly in food every day? Chemicals may be stored in body fat for decades, others may be excreted quickly leaving no trace of a harmful exposure.

Many agricultural chemicals are endocrine disrupters which may act like hormones in our body. The precautionary approach is to avoid them where possible. These chemicals get to the top of the food chain where we eat them in meat and animal products. We can't do much about past exposures but aim to get the cleanest possible food - starting now.

When something has not yet been proven, we can take a precautionary approach,

\* Charts of additives are available in book stores, or check out additive codes at:

<http://www.nzfsa.govt.nz/consumers/food-safety-topics/food-processing-labelling/food-additives/food-additives-booklet.pdf>  
or <http://www.foodstandards.gov.au/whatsinfo/foodadditives.cfm>

*“..in the absence of adequate data on humans, it is biologically plausible and prudent to regard agents and mixtures for which there is sufficient evidence of carcinogenicity in experimental animals as if they presented a carcinogenic risk to humans.”*

(International Agency for Research on Cancer (IARC) 1998)

### **COOKING**

Don't heat foods in plastic containers, as chemicals can leach from some plastics when hot. Keep plastic film away from food while microwave cooking. Use glass and microwave-safe ceramics instead. Preferably store food in glass, stainless steel and ceramics also.

Wash fruit and vegetables well and eat some fresh and raw. Steam or stir-fry vegetables - don't over-cook. Oven-bake well scrubbed root vegetables in their jackets, or brushed with olive oil.

Fish may be steamed, baked in foil or grilled. Avoid highly browned or seared meat and browned cheese as cancer-causing substances such as heterocyclic amines are produced during browning.

Use cold-pressed olive or avocado oils for cooking as they are less affected by heat than most oils, up to about 160°C. Try to avoid refined oils, including light olive oil, and refrain from deep frying.

Above all aim for the cooking and eating of food to be enjoyable, and for meals with family and friends to be happy times. The best food in the world will not help us much if we are too stressed to digest it properly.

### **EXERCISE**

Most research has shown that regular physical activity in all stages of a woman's life reduces the risk of breast cancer, and improves the outlook of women who have already had the disease. In 2004, a review found that women with the highest level of physical activity in adolescence and early adulthood had an almost 20% lower risk of breast cancer when compared with women who had the lowest level of activity. The risk reduction appears to happen at all ages, both pre and post-menopause.

### **CHEMICALS - CLEANING and GARDENING In the home**

Gloves should be worn or hands washed thoroughly with soap and cold water when household chemicals are used - cleaners, sprays, etc. Read the labels and observe safety precautions. Use eco-friendly or home-made cleaners when possible. For example, a little vinegar in water (with elbow grease) for a glass cleaner. Try to reduce the number of household cleaners in your cupboard. A mask is advisable if using aerosol sprays, sanding or spray painting.

### **In the garden**

Find organic substitutes for chemical sprays. Pesticides are often endocrine-disruptors. Magazines such as “Organic NZ” have information about organic gardening. Take notice of manufacturers' safety messages on chemical spray products. Wash exposed skin thoroughly in cold water, throw away used masks and wash protective clothes after use. Dispose safely of containers used for chemicals, and don't pour the contents into the storm water system where they will finish up on our beaches. If your local council has a collection point for disposal

hazardous materials, use it. If not, contact them and ask advice on safe disposal. Avoid exposure to asbestos as it causes serious lung cancers years later. Call the experts in to remove asbestos.

## AIR

You can reduce the levels of insecticides, cigarette smoke, moulds, solvents and chemical perfumes in your home. Your furniture and carpet may have been treated with chemicals, especially flame retardants. Indoor plants that have a cleansing effect on the air include the well-known "Peace Lily" and "Mother-in-law's tongue." Check with your garden centre for others.

Reduce air pollutants by keeping cars well-tuned and avoiding fires where possible. When possible choose walking or cycling instead of driving.

Trees can be planted to take up excess carbon dioxide, and consider talking to the nearest local body if there are high levels of car emissions or industrial pollutants in your locality.

Avoid breathing in petrol fumes when you re-fuel the car. Use non-toxic or low toxic paints and finishes for decorating.

## SKIN CARE

Avoid sunburn. Fifteen minutes daily exposure to the sun in the cool of the day will keep Vitamin D levels normal. Low levels of Vitamin D are associated with breast cancer, although it has not been established that low Vitamin D is a causal factor. (A dietary source of Vitamin D is fish, especially oily varieties).

Protect children carefully from sun exposure, to reduce the chance of melanoma in early adulthood.

Labels on skin care products should be read carefully. Absorbed chemicals may be stored in fat and breast tissue - some may influence breast cancer risk. Contents may not be listed in NZ products - we need to do something about this.

Cosmetics, baby oils etc, often include mineral oils which can be absorbed, and may transport oil-soluble vitamins such as A, D and E out of the body.

Many cosmetics contain phthalates and parabens. Parabens have been found in breast tumours although the significance is unclear. Phthalates are endocrine-disruptors. Cosmetics are available from health stores that contain more natural components.

Throw out cosmetics that don't smell fresh, as rancid components may be absorbed through the skin. The deodorant stone available from health stores has no additives and suits many people.

Most of us eat quite a bit of lipstick over a lifetime - yet there is no information on what is in lipsticks. We should be demanding to know what is in lipsticks.

## MEDITATION

Meditation can bring a range of benefits. It is accepted as a beneficial therapy, it costs nothing and does no harm. It quietens the mind, may decrease anxiety and depression, and improve some body functions. Some people think it may raise melatonin levels and reduce free radicals, both of which could be helpful in preventing cancer and other diseases.

## SUPPLEMENTS

Because our soils are lacking in some nutrients needed for human nutrition, and our diets are not perfect, many people wish to supplement their food intake to get a balance of minerals and vitamins. Note, however, that a high intake of fresh vegetables, fruit, nuts, and seed-based foods is an excellent basis for good nutrition.

The needs of each individual will vary depending on age, sex, health status, type of diet and other factors. Since vitamins or minerals work in combination with others, if you wish to use supplements you are advised to see a registered clinical nutritionist, naturopath or dietician, for your personal needs to be assessed.

If you are to have prescribed medications, or treatment for cancer it is important to let the doctor know what supplements you are taking as some interfere with clinical treatments.



## A sample healthy family menu with up to 10 servings of vegetables and fruit

Drink 6 - 8 cups of water and other fluids per day, such as green tea, water with squeeze of lemon, herbal teas, juice, and miso, tea and coffee in moderation. Eat a wide variety of foods. Introduce new ideas and new foods gradually (serving numbers in pink).

### Breakfast

- Small glass freshly squeezed juice. **1**
- Muesli or porridge with yoghurt or milk and chopped, raw fruit - pear/kiwifruit/banana/tamarillo, or stewed fruit/prunes. **2**
- And/or whole grain toast with organic peanut butter or sliced tomatoes.
- Or** a few almonds and raw fruit salad,
- Or** fruit smoothie with yoghurt.

### Morning tea

- A few brazil nuts and dried fruits such as apricots, dates. **3**
- Or** piece of fruit (mandarin/apricot/peach) with home baked cookie or fruit and nut muffin, **6**

- Or** crackers with peanut butter or cheese, and tomato or cucumber.

### Lunch

- Canned salmon and salad sandwich with home-made mayonnaise, **4**
- Or** salad with added eggs, salmon or chicken, sunflower seeds and roll,
- Or** vegetable/lentil soup with whole grain toast or bagel.
- 1 serve fruit or vegetable - orange/plum/carrot/ half an avocado/tomato. **5**

### Mid-afternoon or Pre-dinner snack, if needed

- Children - marmite and walnut sandwich, and

organic dried banana, or yoghurt and half an apple, or all of that,

Rice crackers and hummus, or home-roasted peanuts, tomato juice,

**Or** carrot and celery sticks with home made French dressing or dip,

**Or** pawpaw or melon with lemon juice.

6

## Dinner

Chicken, fish or lean meat with 3-4 baked and steamed vegetables **7, 8, & 9 or 10**

(potatoes, kumera, taro, pumpkin, broccoli, silver beet, puha, taro leaves)

**Or** spinach pasta - fresh or canned tomato sauce with plenty of added vegetables, such as courgettes, peppers, onions, beans, garlic, and a little chicken, meat, fish or cheese;

**Or** meat casserole with onion, mushrooms, capsicums, served with greens, and potato or kumera;

**Or** mixed stir-fried vegetables with chicken, fish, cashew nuts, or marinated tofu on basmati rice or noodles;

**Or** egg dish such as frittata with vegetables, served with salad,

**Or** Ratatouille, with French bread and green salad,

**Or** vegetable lasagne and bean sprout salad, or green beans

**Or** Lima bean casserole with tomatoes, onions, peppers, etc. served with cooked greens,

**Or** Lentil and rice dahl and stir-fried or curried vegetables,

**Or** barbecued meat or fish, not charred, with corn on cob, beetroot and salads,

**Or** baked mixed vegetable platter, salsa and nut roast.

## Dessert, if needed

Raw/canned/cooked fruit (hot or cold) with topping - yoghurt or crumble or egg custard, etc.

**Or** home made cookie and fresh fruit slices,

**Or** baked stuffed apples or pears in red wine,

**Or** summer pudding with berries

10 or 11

**Or** low fat dessert with fruit coulis,

**Or** crackers, cheese and grapes.

## CHILDREN

Be creative in helping small children learn to enjoy healthy food, keeping high fat, high sugar or salty snacks for special occasions only, and giving plenty of sliced crunchy raw fruit and vegetables - adding nuts and crunchy seeds when children are old enough. Use low sugar cereals or porridge, and grainier breads. Teach them to enjoy water rather than juice, sugary or artificially sweetened drinks, by your own good example. Make water more attractive by chilling, adding ice-cubes, slices of lemon or other fruit, a sprig of herbs such as parsley or mint or edible flowers, special bottles, cups, etc.

Introduce changes gradually. Set targets and congratulate yourself when you reach each milestone.

Watch that children use minimal fluoride toothpaste and rinse it away thoroughly. Fluoride-free may be better for little children who often swallow toothpaste. Too much fluoride can be toxic.

Children are more susceptible to x-ray damage, so avoid x-rays on your children whenever possible. Ask if the x-ray result will affect the treatment choice or outcome. There will be times when x-rays are necessary. Ask for a lead apron to cover the rest of the body.

Ask about chemical sprays used on your child's school playgrounds and sports fields. Spray chemicals can be absorbed through bare feet.

Avoid PVC toys (especially teething toys) backpacks and clothing items if possible. There are other choices in most cases. During manufacture, chemicals are added to PVC to improve its stability and usefulness. PVC items may contain phthalates, lead, cadmium and other substances, which can be released into the air around your child under some conditions. Toxins are found in the dust formed when PVC products are abraded or break down.

## RISK FOR WOMEN WHO HAVE CLOSE RELATIVES WITH BREAST CANCER

Some women have higher than average breast cancer risk associated with a family history of breast and ovarian cancer. **7**

Relatives may be in the father's or mother's family and may occasionally be male. When there are any close relatives with breast cancer it is best to discuss your risk level at an early age with your doctor, and ask whether extra surveillance or preventative measures would be best for you. The measures in this brochure will contribute to risk reduction.

The following web site has a risk assessment tool for women who have not had breast cancer. The result is only a guide, and should be discussed with a doctor. <http://bcra.nci.nih.gov/brc/q1.htm>

## EARLY DETECTION OF BREAST CANCER

Early detection is important. Currently mammography is the single most effective screening tool, but it is not perfect. Some breast cancers are missed. If breast tissue is very dense, ultra sound may be used as well. Dense breast tissue may be a breast cancer risk factor so women with this type of tissue need to be vigilant at being checked regularly.

At this stage BCN does not recommend the use of thermography for screening, except as an extra measure to accompany screening mammography.

### Sources

1. California EPA Air Resources Board: *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant*, at <http://www.arb.ca.gov/toxics/ets/dreport/dreport.htm>
2. Colditz, G A, et al.: *Harvard Report on Cancer Prevention Volume 4: Harvard Cancer Risk Index*, Cancer Causes and Control 11: 477-488, 2000.
3. Evans, N, ed.: *State of the Evidence*, Breast Cancer Action, 2004.
4. Vogel, VG, Bevers, T, eds.: *Handbook of Breast Cancer Risk Assessment*, Massachusetts, Jones and Bartlett, 2003.
5. Watts, M.: *Breast Cancer and Chemicals*, Auckland, NZ, Breast Cancer Network (NZ) Inc, 2003.
6. Preamble to the IARC Monographs, at <http://www-cie.iarc.fr/monoeval/preamble.html> 06/14/05

**Breast Awareness:** all women, even very young women, should become familiar with the appearance and feel of their breasts. Even though breast cancer is rare in very young women, it does occur. Any observed breast changes are a sign to visit your doctor without delay (see box at right for a list of suspect breast changes). Sometimes insufficient testing will be performed on very young women, simply because they are in an age group that has a low risk of breast cancer. In such circumstances younger women may need to insist that they be fully tested.

Approaching 30 years, women should ask to have their breasts examined regularly by a doctor, and discuss their personal risk level. Examination by a physician is more effective than self-examination. Sometimes a decision may be taken to begin screening mammography early. Mammography can be done privately, but young, higher-risk women can be screened free of charge at a DHB.

BreastScreen Aotearoa provides free mammography screening every two years for women aged 45 to 69 years with no breast cancer symptoms. We recommend women should join the programme when they are eligible, but continue to check their breasts for any changes, and continue to have regular checks by a doctor.

## Breast Changes

See your doctor without delay if changes are observed, such as lumps in the breast or armpit, thickenings, dimples, skin 'pleats or tucks', recent inversion of a nipple, nipple discharge, or any rash that fails to heal quickly. Sometimes, pain may be a symptom of cancer.

The earlier breast cancer is diagnosed, the more likely it is that treatment will succeed. Tests will be done to establish if a lump or lesion is benign or malignant and will include ultra sound and/or biopsy. Mammography alone is not enough.



## If I take all of these recommendations on board, will I be safe from breast cancer?

Risk will be reduced and you will have done what you can to benefit yourself and your family. Breast cancer risk cannot be completely eliminated. Prenatal or hereditary factors, and natural hormonal variations cannot be controlled or even easily assessed. Some factors are still unknown. The recommendations in this leaflet will improve overall health, reduce breast cancer risk and risk of other cancers, and contribute to making NZ a safer environment for ourselves and our children. It is really worthwhile. Together, let's aim to reduce breast cancer risk in New Zealand.

## THE BIGGER PICTURE - *looking to the Environment*

The next stage of our project, **Stop Cancer Where it Starts**, has a wide focus and includes the call for a clean up of chemicals in the environment.

If you would like to take action to help reduce environmental chemicals, ask for the leaflet, "Reducing Environmental Risk Factors for Breast Cancer" - which introduces our Action Kit for working with councils and local bodies. It outlines what could be achieved by women working together in their own communities.

If you would like to talk to us about this project or to have more copies of this brochure to give to friends, please contact us - **we would love to hear from you.**

**Breast Cancer Network (NZ) Inc.**

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## How did you get on with the quiz?

Drinking alcohol daily	<input checked="" type="checkbox"/>	Passive smoking	<input checked="" type="checkbox"/>
Smoking	<input checked="" type="checkbox"/>	Being childless	<input checked="" type="checkbox"/>
Exercise	<input checked="" type="checkbox"/>	HRT	<input checked="" type="checkbox"/>
Weight gain/obesity	<input checked="" type="checkbox"/>	Plenty of vegetables	<input checked="" type="checkbox"/>
Breast feeding	<input checked="" type="checkbox"/>	Loss of ovaries	<input checked="" type="checkbox"/>
Olive oil	<input checked="" type="checkbox"/>	Early age for first period	<input checked="" type="checkbox"/>
X-rays	<input checked="" type="checkbox"/>	Late age for menopause	<input checked="" type="checkbox"/>
Toxic chemicals	<input checked="" type="checkbox"/>	Fish Oil	<input checked="" type="checkbox"/>
Green Tea	<input checked="" type="checkbox"/>	Nuclear fallout	<input checked="" type="checkbox"/>
Teenage pregnancy	<input checked="" type="checkbox"/>	Mother has breast cancer	<input checked="" type="checkbox"/>
The Pill	<input checked="" type="checkbox"/>		

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