RISK FACTORS
Each year more than 2600 New Zealand women and approximately 20 men are diagnosed with breast cancer. For every person who is diagnosed, other people are affected including husbands, wives, partners, children, family, and friends. More than 650 New Zealand women die from breast cancer every year.

In New Zealand, women have an average risk of 11% (or 1 in 9) of being diagnosed with breast cancer at some time in their lives. This means the chance that they will never have breast cancer is 89%.

Main risk factors for breast cancer are:

**Gender**
Being female and having breasts is the highest risk factor.

**Increasing Age**
The risk of developing breast cancer increases with your age. Approximately, 75% of all breast cancers are diagnosed in women 50 years and over.

Other risk factors include:

**Family History**
About 5-10% of breast cancers have a family history. 1-5% of the 5-10% are inherited, most commonly the genes BRCA1 and BRCA2.

You can be at increased risk of developing breast cancer if you have:

- Multiple close relatives (male or female) affected (on the same side of the family) by breast cancer or ovarian cancer
- Relatives who were diagnosed with breast cancer pre-menopause
- Breast and ovarian cancer diagnosed in the same relative
- Relatives diagnosed with bilateral breast cancer
- Ashkenazi Jewish ancestry

Women who are concerned about their family histories should discuss their personal risk with their doctor.

**Previous Medical History**
Women who have had breast cancer in the opposite breast, pre-cancerous breast conditions such as ductal carcinoma in situ (DCIS), or lobular carcinoma in situ (LCIS), or benign breast disease such as atypical ductal hyperplasia, or have received radiation treatment for Hodgkin’s Disease before 30 years of age have a higher risk of developing breast cancer.

**Alcohol**
Several studies, for example, The Million Women Study (2002), link alcohol intake (more than one glass per day) to an increased risk for breast cancer - approximately 7-10% for every additional drink.

**Hormone Replacement Therapy (HRT)**
Across multiple randomised controlled trials published since 2000, there is a consistent and significant increased risk of developing breast cancer in women who have taken combined HRT for more than 5 years compared with women who have never taken HRT.

**For further information, women should contact their family doctor who can assess their risk in a personal context.**
Body Size: Post-Menopausal

Increasing body mass index (BMI) is associated with a significant increase in the risk of cancer for 10 out of 17 specific types examined. Among post-menopausal women in the UK, 5% of all cancers (about 6000 annually) are attributable to being overweight or obese. For post-menopausal overweight or obese women, the risk of breast cancer is increased 1.4 times (or 40%)\(^{10}\).

**RISK REDUCTION FACTORS**

International studies show a relationship between a healthy lifestyle and a reduction in many cancers. By choosing a healthy lifestyle (combination of food and exercise), a person may reduce their personal risk of being diagnosed with breast cancer.

**Physical Activity/Healthy Weight**

Regular physical activity appears to decrease post-menopausal breast cancer risk, mainly through weight control. One recent study on physical activity and breast cancer shows a 15-20% decreased risk for pre- and post-menopausal breast cancer combined. Aim to build up your exercise to at least 30 minutes, 3-5 times a week. And the more exercise you do, the bigger the benefits in lowering your risk\(^6,11,12\).

Body Size: Pre-Menopausal

For reasons not clear in studies, pre-menopausal obese women (BMI >31 kg/m\(^2\)) have a decreased breast cancer risk almost 50% lower than lean pre-menopausal women (BMI <21kg/m\(^2\))\(^6\).

**Hormone Exposure**

Hormonal factors which have shown a small decrease in the risk of developing breast cancer in women include:

- Giving birth to at least one child\(^6\)
- Earlier age at first birth (<25 years vs>29 years)\(^6\)
- Breastfeeding for at least 12 months duration (4-5% risk reduction)\(^6,13\)
- Number of births (4 or more vs 1)\(^6\)

Most Importantly: The risk profile of women diagnosed with breast cancer looks very much like those who remain free from the disease. So it is important that every woman is breast aware and practises a healthy lifestyle\(^6,8\).

**References**