

GENERAL INFORMATION ABOUT BREAST AND OVARIAN CANCER

WHAT is cancer?

Cancer is a general term for uncontrolled cell growth in which abnormal (malignant) cells develop. The cells in our bodies receive signals that indicate when to grow and multiply and when to stop. For example, when you cut your skin, the cells are stimulated to grow, the wound is healed and then the cells' growth slows to normal rates. The skin does not continue to grow beyond normal limits. In cancer, the cells are not getting the proper signals to start or stop growth, so they continue to grow without regulation. A group of cells growing uncontrollably is called a tumour. This process can occur anywhere in the body.

DOES cancer have a genetic origin?

Cancer is considered genetic because genetic material is involved. Our genetic material (DNA) is the blueprint that our cells follow to grow and develop. Our cells contain genes that provide specific instructions to our cells that have been passed on from our mother and father. In cancer, there are two major types of genes. One group is called oncogenes. These genes can be compared to the accelerator of a car; they give the signal to grow faster. The other major group of genes are called tumour suppressor genes. These are like the brakes on a car, because they slow down growth. These genes have important functions in normal cells, but may lead to cancer if they are altered.

WHAT is a woman's risk of developing Breast Cancer?

All women regardless of family history have at a minimum, a 1 in 12 or an 8% risk of developing breast cancer throughout their lifetime. Before age 50, the chance of developing breast cancer is less than 2%. For individuals with inherited susceptibility for breast cancer, the risk can be as high as an 85% chance of developing breast cancer throughout their lifetime, and a 59% chance before age 50.

Breast cancer is one of the most common cancers among women. According to the National Cancer Registry, 1,500 new cases of breast cancer are expected to be diagnosed in 1998.

WHY is Breast Cancer so common?

Researchers speculate that the increase in breast cancer rates over the past 50 years may be partially due to modern reproductive patterns, such as having fewer children and delaying first childbirth until a later age. During the time between a woman's first period and childbearing, the breast cells are exposed to a large amount of oestrogen, which stimulates growth and cell division. The lengthening of this time period is thought to slightly increase the risk for breast cancer. So, early age at first period, late age at menopause, late age at first live birth, and few pregnancies all may increase a woman's risk of breast cancer by affecting the breast tissue's lifetime exposure to hormones. Environmental factors, including high fat diets, alcohol use and others as yet unknown, may also be contributing to the increasing rate. There may be a slight increase in the risk of breast cancer to women who have had prolonged use of the contraceptive pill or hormone replacement therapy.

HOW is Breast Cancer detected?

There are three standard components to detection: breast self exam (BSE), clinical breast exam (performed by a physician) and mammography.

Doctors who are experts in management of breast cancer recommend that women in the high-risk category perform BSE monthly and have a mammogram and clinical breast exam every six to twelve months. This applies to women who have a personal or family history of breast cancer and those with a genetic susceptibility for breast cancer. Consult your doctor to establish the best plan for you.

HOW is Breast Cancer managed?

Management is individualised for the patient according to type of tumour and the stage at which it is detected. Surgical removal of the tumour or the whole breast and underlying tissue, radiation therapy, hormonal therapy and chemotherapy are all choices available to treat and manage breast cancer.

HOW can Breast Cancer be prevented?

There are no proven ways to eliminate the risk of breast cancer, but some research suggests that lifestyle modification, preventative mastectomy and chemoprevention may be ways to reduce the

chances of developing breast cancer. Removal of breast tissue before cancer has developed is called preventative (or prophylactic) mastectomy. This surgical procedure does not completely remove the risk of breast cancer, because it may not completely remove all breast tissue. The degree of risk reduction from preventative mastectomy is unclear at this time, but the risk is not reduced to zero.

Even for women with a strong family history, surgeons disagree on the value of preventative mastectomy. Surgery of this type is a highly individual decision.

Trials for a drug called Tamoxifen are underway. Tamoxifen works against the effects of oestrogen, and therefore is called an anti-oestrogen. Research has shown that when Tamoxifen is used in therapy for early stage breast cancer, it reduces the risk of recurrence of the original cancer and also reduces the risk of new cancers in the opposite breast. The most recent results seem to show that Tamoxifen is useful in preventing (or delaying onset of) breast cancer in women with an increased risk.

HOW Breast Cancer affects men

Breast cancer is generally considered a woman's disease. Although it is rare, men can get breast cancer due to the fact that they too have breast tissue. Breast cancer accounts for less than 1% of all cancer in men, and approximately 0.5% of all breast cancer cases occur in men.

WHAT is a woman's risk of developing Ovarian Cancer?

About 1 in 70 women (approximately 1%) will develop ovarian cancer in their lifetime or approximately 300 women in Ireland each year. Most women diagnosed with ovarian cancer are over age 40.

HOW is Ovarian Cancer detected?

For those women known to be at high risk for ovarian cancer, several tests may be helpful, including physical examination, gynaecological assessment, CA125 blood test and transvaginal ultrasound. None is adequate alone, and each one has limitations. CA125 is a chemical that is measured in the blood stream that is elevated in 80% of ovarian cancers. Unfortunately, other conditions (including some benign conditions) can cause CA125 to be elevated even without the presence of ovarian cancer. Ultrasound has limited capabilities, as it can see the anatomy of the ovary, but has little specificity to distinguish a cancerous growth from benign one. A pap smear does not detect ovarian cancer. The pap smear is designed to detect cervical cancer.

WHAT are the signs of Ovarian Cancer?

There are no *specific* symptoms of ovarian cancer, but symptoms can include abdominal discomfort or pain, an enlarged abdomen due to accumulation of fluid, altered bowel habit, frequent urination and constipation. Rarely, vaginal bleeding occurs.

HOW is Ovarian Cancer managed?

Each case is individualised according to the patient and type of tumour. Surgery, frequently followed by chemotherapy, is used to try to prevent recurrence. If diagnosis and treatment are made early in tumour development, the five year survival rate after discovery of ovarian cancer is 90%. Unfortunately, only a few women are lucky enough to have ovarian cancer detected at this early stage.

WHAT kind of prevention can be done?

Birth control pills (oral contraceptives) may decrease the risk of developing ovarian cancer, but patients should still be monitored carefully. Multiple studies have shown a significant decrease in ovarian cancer with oral contraceptive use for even a short amount of time.

Removal of the ovaries before cancer develops, or prophylactic oophorectomy, can reduce risk to an unknown degree but it cannot remove the risk completely.

Further information on cancer is available from your doctor, or from the Irish Cancer Society:

**Irish Cancer Society
4, Northumberland Road
Dublin 4**

**FreeFone 1800 200 700
www.cancer.ie**