

## BREAST CANCER

### General background and statistics

Breast cancer most commonly develops in the lining of the lobules (which produce milk after childbirth) and in the ducts (the channels that take milk from the lobules to the nipples).<sup>1</sup> Several types of breast cancer are known.

There are many lymph nodes surrounding the breasts. This is important, as if cancer cells spread from their original site to the lymph nodes there is a higher chance that they may spread to other areas of the body.<sup>2</sup> If breast cancer travels to other areas of the body and forms tumours it is said to be advanced or 'metastatic' breast cancer.

Breast cancer is the most common cancer in women, and the second most common cancer in Europe overall. It is responsible for more deaths in women than any other cancer.<sup>3</sup> Whilst breast cancer is the leading cancer site in women in all countries in Europe, the highest incidence rates are seen in Western and Northern Europe.<sup>4</sup> Survival is higher in Western than in Eastern Europe and, taking Europe as a whole, over 80% of women can expect to be alive five years after diagnosis.<sup>1</sup>

Full details of incidence, mortality and prevalence rates for breast cancer across the European countries can be viewed on the World Health Organisation's European Cancer Observatory website:<sup>2</sup> <http://eco.iarc.fr/eucan/CancerOne.aspx?Cancer=46&Gender=2>\*

\* Janssen is not responsible for the content of external websites.

### Symptoms

The first sign of breast cancer for most women is a lump in their breast, however many women have lumps in their breast and nine out of ten (i.e. 90%) are benign, which means they are not cancerous.<sup>5</sup> Very early breast cancer may have no symptoms and can only be detected on mammography screening (most European countries have established or are introducing some form of breast cancer screening). Symptoms related to breast cancer include:<sup>1</sup>

- A painless lump that can be felt in the breast
- Change in the size or shape of the breast
- Altered skin texture, such as dimpling or thickening
- Inversion of the nipple
- Discharge from a nipple or breast pain

## Risk factors

Breast cancer is known to be hormone related.<sup>6</sup> However, more work is needed to identify all the precise causes.<sup>7</sup> Most cases of breast cancer occur in women aged over 50 and it is one of the few cancers where the risk is higher for more affluent women.<sup>8</sup>

Other risk factors include:<sup>9</sup>

- Family history of breast cancer
- Presence of BRCA genes (a faulty gene, uncovered through genetic testing)
- Late puberty or early menopause
- Late age at first childbirth
- Use of oral contraceptives and/or hormone replacement therapy
- Lifestyle factors, such as alcohol use, being overweight/obesity and physical inactivity

## Diagnosis and treatment

Early detection remains the cornerstone of breast cancer control. There is a good chance that breast cancer can be cured if detected early and adequate diagnosis and treatment is available.<sup>7</sup> Tests to confirm diagnosis include:<sup>8</sup>

- Examination of the breasts and armpits
- Mammogram
- Ultrasound scan and other scans
- Biopsy of the lump

Surgery is the first treatment for most women (lumpectomy or mastectomy, depending on the prognosis). Radiotherapy is given after surgery to destroy any remaining cancer cells, and to treat cancer that has spread, as necessary. Chemotherapy and hormone therapy are given before surgery if the cancer has spread to tissues near the breast, and to women whose cancer has spread to the rest of the body.<sup>8</sup>

## References

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1 Ferlay J, et al. Eur J Cancer 2013; 48:1374-403 seen in European Society of Gynaecological Oncology & European Network of Gynaecological Cancer Advocacy Groups. Women's silent cancers – The state of gynaecological cancers in Europe, Sept 2013.

2 Cancer Research UK. The Breasts and Lymphatic System: <http://www.cancerresearchuk.org/cancer-help/type/breast-cancer/about/the-breasts-and-lymphatic-system>. Accessed Sept 2014.

3 ECO, European Cancer Observatory. International Agency for Research on Cancer: <http://eco.iarc.fr/EUCAN/Country.aspx?ISOCountryCd=968>. Accessed July 2014

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4 Ferlay J, et al. Eur J Cancer 2013; 48:1374-403.

5 Cancer Research UK. Breast Cancer Symptoms:

<http://www.cancerresearchuk.org/cancer-help/type/breast-cancer/about/breast-cancer-symptoms>. Accessed July 2014

6 World Cancer Research Fund. Breast Cancer Statistics:

[http://www.wcrf.org/cancer\\_statistics/data\\_specific\\_cancers/breast\\_cancer\\_statistics.php](http://www.wcrf.org/cancer_statistics/data_specific_cancers/breast_cancer_statistics.php). Accessed July 2014

7 World Health Organisation. Breast Cancer Awareness Month in October:

[http://www.who.int/cancer/events/breast\\_cancer\\_month/en/](http://www.who.int/cancer/events/breast_cancer_month/en/). Accessed July 2014

8 European Society of Gynaecological Oncology & European Network of Gynaecological Cancer Advocacy Groups. Women's silent cancers – The state of gynaecological cancers in Europe, Sept 2013.

9 World Health Organisation. Breast Cancer: Prevention and Control:

<http://www.who.int/cancer/detection/breastcancer/en/index2.html>. Accessed July 2014