

## **Stages of Breast and Prostate Cancer Information**

### **Stages of Breast Cancer**

The stages of breast cancer are usually expressed as a number on a scale from 0 through to IV. Stage 0 describes non-invasive cancers that remain within their original location, while Stage IV describes invasive cancers that have spread to other parts of the body outside of the breast.

#### **The stages are based on four characteristics:**

1. The size of the cancer
2. Whether the cancer is invasive or non invasive
3. Whether the cancer is in the lymph nodes
4. Whether the cancer has spread to other parts of the body.

#### **Other descriptions may include:**

Local: cancer confined within breast

Regional: lymph nodes are affected (primarily in the armpit)

Distant: Cancer found in other parts of the body

Locally Advanced or Regionally advances: describes large tumours of the breast skin, underlying chest structures, breast shape changes, enlargement of lymph nodes.

Stages are important to prognosis and decision surrounding treatment.

Stage 0: describes non invasive cancers, where there is no evidence of cancerous cells or non-cancerous abnormal cells outside of the original area where they started, or invading neighbouring tissues.

Stage I: this is invasive breast cancer, i.e. cancer cells breaking through or invading surrounding breast tissue. This stage is divided into two categories, IA and IB.

IA: describes invasive cancer with a tumour measuring up to 2cm AND cancer has not spread outside the breast tissue.

IB describes invasive cancer with no tumour in the breast, rather small groups of cancer cells, measuring between  $>0.2\text{mm}$  and  $<2.0\text{mm}$ , found in the lymph nodes OR tumour in the breast that is no larger than 2cm, and small groups of cancerous cells measuring between  $>0.2\text{mm}$  and  $<2.0\text{mm}$  in the lymph nodes.

Stage II: is divided into subcategories known as IIA and IIB.

IIA: describes invasive cancer where no tumour can be found in the breast, but cancer ( $>2\text{mm}$ ) is found in 1-3 axillary lymph nodes or in lymph nodes near the breast bone OR tumour measuring 2cm or smaller which has spread to the axillary lymph nodes OR tumour measuring between 2cm and 5cm that has not spread to the axillary lymph nodes.

IIB: describes invasive breast cancer where the tumour measures between 2cm and 5cm; small groups of cancer cells measuring between 0.2mm and 2mm are found in the lymph nodes OR the tumour measures between 2cm and 5cm; cancer has spread to 1-3 axillary lymph nodes or to lymph nodes near the breast bone OR the tumour is larger than 5cm but has not spread to the axillary lymph nodes.

Stage III: is divided into categories IIIA, IIIB, and IIIC.

IIIA: describes invasive breast cancer where no tumour is found in the breast or tumour is of any size, cancer is found in 4-9 axillary lymph nodes or in the lymph nodes near the breastbone OR the tumour is larger than 5cm; small groups of cancer cells (between 0.2mm and 2.0mm) are found in the lymph nodes OR the tumour is larger than 5cm; cancer has spread to 1-3 axillary lymph nodes or to the lymph nodes near the breastbone.

IIIB: describes invasive cancer where the tumour may be any size and has spread to the chest wall and/or skin of the breast and caused swelling or an ulcer AND may have spread up to 9 axillary lymph nodes OR may have spread to the lymph nodes near the breastbone.

Inflammatory breast cancer is considered at least Stage IIIB. Typical features include: reddening of a large portion of the breast skin, warm and swollen feeling on the breast, cancer cells have spread to the lymph nodes and may be found in the skin.

IIIC: describes invasive breast cancer where there may be no sign of cancer in the breast or, if there is a tumour, it may be any size and may have spread to the chest wall and/or the skin of the breast AND the cancer has spread to 10 or more axillary lymph nodes OR the cancer has spread to lymph nodes above or below the collarbone OR the cancer has spread to axillary lymph nodes or to lymph nodes near the breastbone.

Stage IV: describes invasive cancer that has spread beyond the breast and nearby lymph nodes to other organs of the body, such as the lungs, distant lymph nodes, skin, liver, or brain. It is often referred to as advanced or metastatic. It may be at this stage from first diagnosis, or from a recurrence that has spread.

### **Stages of Prostate Cancer**

Prostate cancer stages are dependent on grade and stage. Grade refers to how quickly the cancer may develop and stage refers to the size and extent of growth within or beyond the prostate, i.e. how far it has spread. Grading: refers to the pattern of growth of the cancer cells. The Gleason Score is the scoring system given to show abnormal or different cancer cells, in comparison to normal tissue. A biopsy of the cancer cells is taken, and compared with normal tissue, using the grading system numbered 1 to 5, with 1 being the least aggressive and 5 being the most aggressive). These numbers are then added together to give the Gleason Score. The greater the difference between the cancer cells and normal cells, the higher the Gleason Score.

Stages: refers to whether the cancer has spread outside of the prostate or not. If the cancer is only in the gland then it is referred to as localised prostate cancer or early prostate cancer. If the cancer grows quickly and spreads to other parts of the body it is known as advanced prostate cancer. Locally advanced means the cancer has extended beyond the prostate and may include seminal vesicles (tumour stage T3) or other surrounding organs such as the bladder or rectum (tumour stage T4). Metastatic means the cancer has spread to distant parts of the body such as the bone.

Prostate cancer stages are described using the TNM (Tumour, Node, Metastatic) system.

T (tumour) stage: discovered by digital rectal examination or MRI to determine if the cancer is isolated in the prostate, or has spread. N (node) stage: shows if the cancer has spread to nearby lymph nodes in the pelvic region. CT or MRI scans are used.

M (metastasis) stage: shows if cancer is spread to other parts of the body, such as the bones. A bone scan is used for this.

Tumour Stages:

T1: the tumour cannot be felt by the doctor during examination

T2: the cancer can be felt but has not spread outside the prostate

T3: the cancer has spread outside the prostate into nearby tissue

T4: the cancer has spread into nearby organs such as the bladder.