Calderdale and Huddersfield
NHS Foundation Trust

Your Guide to the Breast Cancer Pathology Report

Addressograph Label

Your Breast Care Nurse is: _____

Telephone No: _____

A report is written each time that tissue is removed from the body to check for cancer.
It is called a pathology report. The information in these reports will help you and your doctor decide about the best treatment for you.

This report will focus **only** on your Histology results. There will be other information booklets/leaflets given to you regarding other treatments (eg Chemotherapy, Radiotherapy, Endocrine Tablets).

On page 9 you'll find an easy-to-understand word list. We hope we can help you make sense of this information so you can get the best care possible.

Remember:

No matter what the pathology report says about the cancer there are many effective treatments available to deal with it.

compassionate care

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Introduction

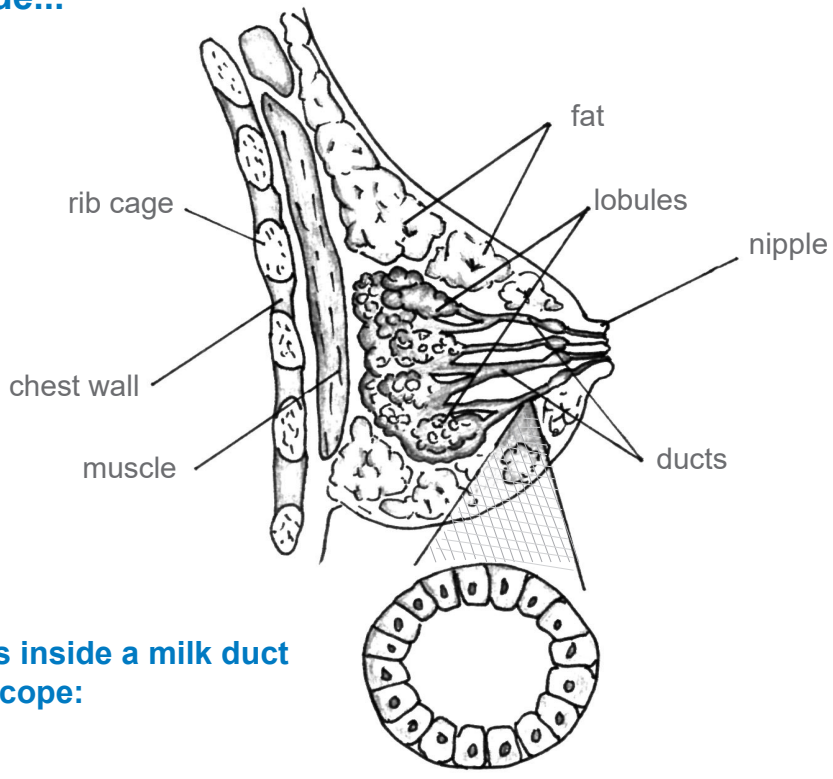
Wait for the Whole Picture

Waiting is so hard! But just one test can lead to several different reports. Some tests take longer than others. Most information comes within one or two weeks after surgery, and you will usually have all the results within a few weeks.

Expert Tip

Pathology reports often come in bits and pieces. Just after surgery, the cancer cells are first looked at under the microscope. Results from additional studies that require special techniques may take longer. So you may have one, two, or three pathology reports from one surgery.

The breast, from the inside...



This is what normal cells inside a milk duct look like under a microscope:

Parts of your report

Specimen: This section describes where the tissues samples came from. Tissue samples could be taken from the breast, from the lymph nodes under your arm (axilla), or both.

Clinical history: This is a short description of you and how the breast abnormality was found. It also describes the kind of surgery that was done.

Clinical diagnosis: This is the diagnosis the doctors were expecting before your tissue sample was tested.

Gross description: This section describes the tissue sample or samples. It talks about the size, weight, and colour of each sample.

Microscopic description: This section describes the way the cancer cells look under the microscope.

Special tests or markers: This section reports the results of tests for proteins, genes, and how fast the cells are growing.

Summary or final diagnosis: **This section is the short description of all the important findings in each tissue sample.**

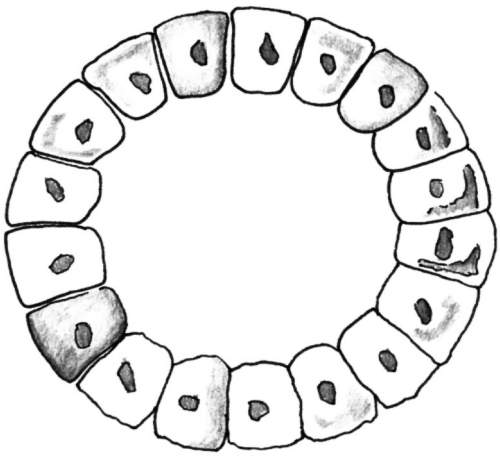
Section A

The Breast Cancer

1. **Is the tumour a cancer?**
   A tumour is an overgrowth of cells. It can be made of normal cells or cancer cells. Cancer cells are cells that grow in an uncontrolled way. They may stay in the place where they started to grow or they may grow into the normal tissue around them.

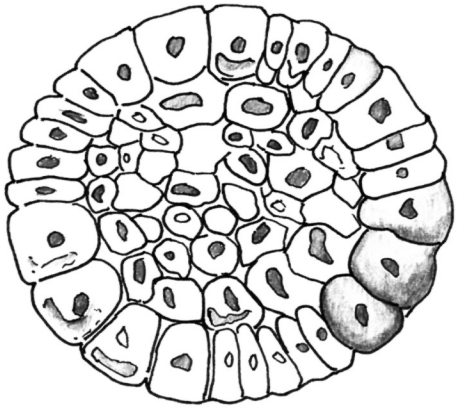
   The pathology report will tell you what kind of cells are in the tumour.

2. **Is the breast cancer invasive?**
   Breast cancer begins in the cell lining, the milk ducts and lobules.
   The single most important fact about any breast cancer is whether it has grown beyond the milk ducts or lobules of the breast where it first started.



Normal Cells

Non-invasive cancers stay within the milk ducts or milk lobules in the breast. They do not grow into or invade normal tissues within or beyond the breast. These are called in situ or pre-cancers.



Non-invasive Cells

If the cancer has grown beyond where it started, it is called invasive. Most cancers are invasive. Sometimes cancer cells can also spread to other part of the body through the blood or lymph system.

Invasive Cells

You may be told these descriptions of cancer in your report:

DCIS (Ductual Carcinoma in Situ)

This is a cancer that is not invasive. It stays inside the milk ducts.
Note: There are subtypes of DCIS. You'll find their names in the word list on page 9 of this leaflet.

LCIS (Lobular Carcinoma in Situ)

This is a tumour that is an overgrowth of cells that stay inside the milk-making part of the breast (called lobules). LCIS is not a true cancer. It is a warning sign for an increased risk of having an invasive cancer in the future, in either breast.

Invasive Ductal Carcinoma.

This is a cancer that begins in the milk duct but grows into the surrounding normal tissue inside the breast. This is the most common kind of breast cancer.

Invasive Lobular Carcinoma.

This is a cancer that starts inside the milk-making glands (called lobules), but grows into the surrounding normal tissue inside the breast.

Note: There are other, less common types of invasive breast cancer. You'll find their names in the word list on page 9 of this leaflet.

My report says:

I have the …….....……..... type of cancer

3. How different are the cancer cells from normal cells?

Experts call this “grade”. They compare cancer cells to normal breast cells. Based on these comparisons, they give a “grade” to the cancer.

There are three cancer grades:

Grade 1

(Low Grade or Well Differentiated): Grade 1 cancer cells still look a lot like normal cells. They are usually slow-growing.

Grade 2

(Intermediate Moderate Grade or Moderately Differentiated): Grade 2 cancer cells do not look like normal cells. They are growing somewhat faster than normal cells.

Grade 3

(High Grade or Poorly Differentiated): Grade 3 cancer cells do not look at all like normal cells. They are fast growing.

My report says the cancer is (circle one)

Grade 1 Grade 2 Grade 3

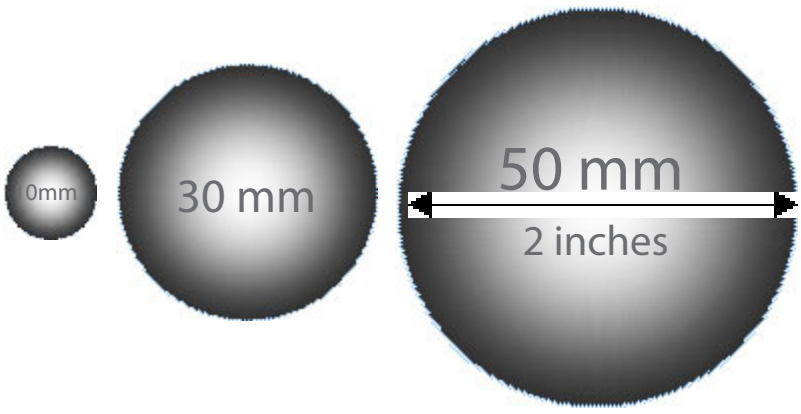
4. How big is the cancer?

Doctors measure cancers in millimeters.

Size doesn’t tell the whole story. Lymph node status is also important.
A small cancer can be very fast growing. A larger cancer can be a “gentle giant.”

Size of my tumour

_____



5. Has the whole cancer been removed?

When cancer cells are removed from the breast, the surgeon tries to take out the whole cancer with an extra area or “margin” of normal tissue around it. This is to be sure that all of the cancer is removed.

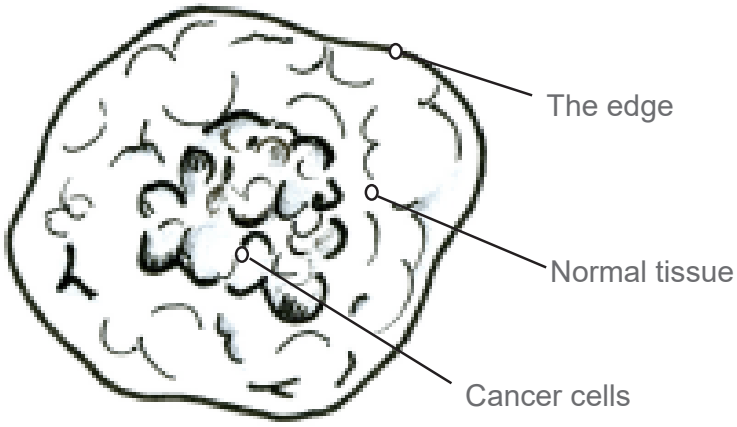
The tissue around the very edge of what was removed is called the resection margin. It is looked at very carefully to see if it is clear of cancer cells.

The pathologist also measures the distance between the cancer cells and the outer edge of the tissue.

Margins around a cancer are described in three ways:

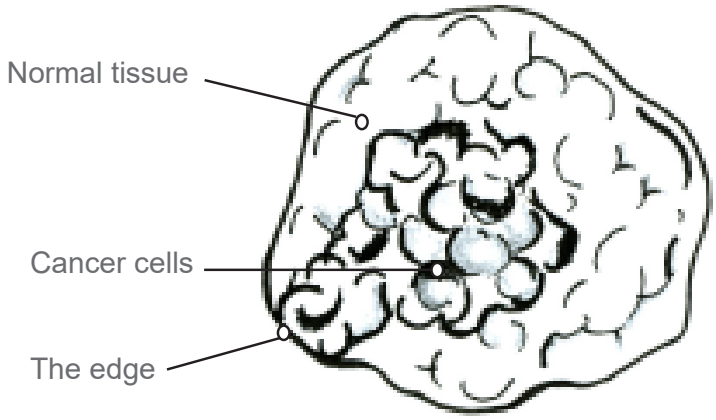
Clear:

No cancer cells can be seen at the outer edge. Usually no more surgery is needed.



Positive:

Cancer cells come right out to the edge of the tissue. More surgery may be needed.



Close:

Cancer cells are close to the edge of the tissue, but not right at the edge. More surgery might be needed.

My report says the margins are :

Clear Positive Close

6. Are there cancer cells in your lymph or blood vessels?

The breast has a network of blood vessels and lymph channels that connect breast tissue to other parts of the body. These are the "highways" that bring in nourishment and remove waste products.

There is an increased risk of cancer coming back when cancers cells are found in the fluid channels of the breast. Your Doctor may take this onto account when recommending your treatment to your whole body, not just the breast area.

This test result will look like this:

Lymphatic/vascular invasion:

PRESENT (yes it has been found) or **ABSENT** (no, cancer cells not seen)

My report says lymphatic or vascular invasion is (circle one)

Present Not Seen

7. Do the cancer cells have hormone receptors?

Hormone receptors are like ears on breast cells that listen to signals from hormones. These signals "turn on" growth in breast cells that have receptors.

A cancer is called "ER-positive" if it has receptors for the hormone Oestrogen.
It is called "PR-positive" if it has receptors for the hormone progesterone. Breast cells that do not have receptors are "negative" for these hormones.

Breast cancers that are either ER-positive or PR-positive, or both, tend to respond well to hormone therapy.

These cancers can be treated with medicine that reduces the oestrogen in your body.
They can be also be treated with medicine that keeps oestrogen away from the receptors.

The results of your hormone receptor test will be written as a number between 0 and 8 and the words positive or negative

My report says hormone receptors are (circle two)

ER-positive ER-negative

PR-positive PR-negative

HER2 status

HER2 is a gene that helps control how cells grow, divide and repair themselves. About one out of four breast cancers has too many copies of the HER2 gene. The HER2 gene directs the production of special proteins, called HER2 receptors, in cancer cells.
Cancer with too many copies of the HER2 gene or too many HER2 receptors tend to grow fast. They are also associated with an increased risk of spread. But they do respond very well to treatment that works against HER2. This treatment is called anti-HER2 antibody therapy.
We do not test every tumour for the HER2 status as it is not always necessary at this time.

My report says HER2 status is (circle one)

Positive Negative

Section B

The Lymph Nodes

1. **Are there breast cancer cells in your lymph nodes?**
   Having cancer cells in the lymph nodes under your arm is associated with an increased risk of the cancer spreading elsewhere in your body

   Lymph nodes are filters along the lymph fluid channels. Lymph fluid leaves the breast and goes back into the bloodstream. The lymph nodes try to catch and trap cancer cells before they reach other parts of the body.

   When lymph nodes are free or 'clear' of cancer the test results are called 'negative'. If lymph nodes have some cancer cells in them, they are called 'positive'.

2. **How many lymph nodes are involved?**
   The more lymph nodes have cancer cells in them, the more serious the cancer might be. For this reason, doctors use the number of involved lymph nodes.

My report says I have had nodes removed

My report says the lymph nodes are (circle one)

Positive Negative

If positive: The number of involved nodes is ____

Oncotype DX Test

Applicable / Not Applicable.

For some patients it is very clear from their histology that they would benefit from chemotherapy. For some patients it is also very clear from their histology that they would not benefit from chemotherapy. There is however a group of patients that we are unsure as to whether chemotherapy will be of any benefit to them.
For this group of patients a diagnostic test has been developed that looks at genes within the breast cancer and determines the individuals risk of cancer recurrence in early- stage invasive breast cancer . This identifies patients with a likelihood benefit from chemotherapy. This test is called Oncotype DX and it takes approximately 3 weeks for results.

Word List

Abnormal cells: cells that do not look or act like the healthy cells of the body.

Aggressive cancer cells: cells that are fast growing and can spread beyond the area where they started.

Anti-HER2 antibody therapy: a medicine used to treat breast cancer with abnormal HER2 genes.

Aromatase inhibitor: medicine that reduces estrogen in the body (after menopause).

Axillary lymph nodes: lymph nodes under your arms .

Benign: not cancerous.

Biopsy: an operation to take out tissue to check if it is cancer or not.

Clear margins: means that the normal tissue a round the tumour is free of cancer cells.

Close margins: means that cancer cells come near the outer edge of the tissue around the tumour.

Ductal Carcinoma in Situ (DCIS): a non-invasive cancer that stays inside the milk ducts and usually doesn't spread.

ER-negative: a cancer that does not have oestrogen receptors.

ER-positive: a cancer that has oestrogen receptors.

FISH (Fluorescence In Situ Hybridisation) test: a test for the HER2 gene.

Gene: part of the body's code for making new cells and controlling the growth and repair of the cells.

Grade: tells you how much the tumour cells look different from normal cells.

HER2: a gene that helps control the growth and repair of cells.

Hormone receptors: tiny areas like ears on cells that listen and respond to signals from hormones.

In situ: a cancer that stays inside the part of the breast where it started; it usually does not spread.

Invasive: a cancer that spreads beyond the place where it started.

Invasive Ductal Carcinoma: a cancer that begins in the milk duct but grows into the normal breast tissue around it.

Invasive Lobular Carcinoma: a cancer that starts inside the milk-making gland, but grows into the normal breast tissue around it.

Oncotype Dx Test: a multigene diagnostic test to determine the benefit for chemotherapy in patients who there is uncertainty as to whether they would benefit from chemotherapy.

Key Questions

Here are important questions to be sure you understand, with your doctor's or breast care nurses help:

1. Is this breast cancer invasive or non-invasive?

2. Are any lymph nodes involved with cancer?
   If so, how many?

3. What did the hormone receptor test show? Can you take a medicine that lowers of blocks your oestrogen?

4. Were the margins clear, close or positive?

5. Is any further surgery recommended based on these results?

6. What types of treatment are most likely to work for my cancer?

Summary

Type of Cancer _____

Grade _____

Size _____

Nodes _____

ER/PR Status _____

HER 2 _____

Notes

Useful Numbers

Breast Cancer Now	0808 800 6000
Macmillan Cancerline	0808 808 2020

Suppport Groups

The Macmillan Cancer Information and Support Service	
Macmillan Unit CRH	01422 222709
Greenlea Unit HRI	01484 343614
Macmillan Unit Halifax	01422 222700
Asian Cancer	0800 590 415
Specialist Breast Care Nursing Team	01422 222711
Email: **breast.CNS@cht.nhs.uk**	
Research Team Nurses	01484 347165

If you have any comments about this leaflet or the service you have received you can contact :

Clinical Nurse Specialist Breast Care

Calderdale Royal Hospital

Telephone (01422) 222711

www.cht.nhs.uk

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

ਜੇ ਤੁਸੀਂ ਇਸ ਜਾਣਕਾਰੀ ਬਿਸੇ ਹੋਰ ਪ੍ਰਾਰੂਪ ਜਾਂ ਭਾਸ਼ਾ ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉੱਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو یہ معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو
برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں.

"إذا احتجت الحصول على هذه المعلومة بشكل مغاير أو مترجمة إلى لغة مختلفة فيرجى منك الاتصال بالقسم المذكور أعلاه"