

Although cancer is a common disease, it's still something you never think will happen to you. That's why a diagnosis of breast cancer can be so shocking.

Following diagnosis, we understand there may be many different emotions, making it difficult to absorb all the information you may be receiving.

For this reason, and with the help of medical experts and patients, we have developed this booklet to help you better understand and follow your treatment at every step.

We hope you find it useful during this difficult time.



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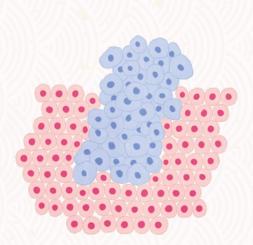
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What makes a cell cancerous?

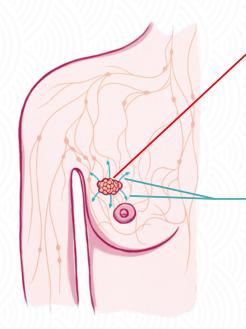
Every day our body carries out thousands of automated tasks, which are strictly regulated. Sometimes, due to multiple factors, things can go off course and a mistake is made which can create alterations in our DNA, the genetic information that makes us who we are. ¹

Alterations can lead to uncontrolled cell growth



These alterations can increase the speed at which cells divide and grow, potentially leading to the formation of a tumour.

When tumours occur in the breast, this is referred to as breast cancer, which can appear as:



Early-stage breast cancer

Cancer cells are entirely confined to the breast region and/or local lymph nodes, where the cancer began.

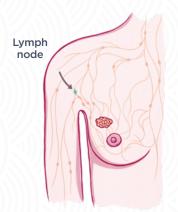
Late-stage breast cancer

Cancer cells can detach from the original tumour and travel around the body, "landing" in other organs where they can continue to proliferate. This is called metastasis.

THERE ARE SEVERAL DIFFERENT TYPES
OF BREAST CANCER. AT DIAGNOSIS,
THE DISEASE CAN APPEAR MORE OR LESS
ADVANCED. THE FOLLOWING PAGES WILL
FOCUS ON EARLY-STAGE BREAST CANCER.

Types of early-stage breast cancer

To determine the type of cancer you have, several aspects will be considered:



1. Where is the tumour?

It could be in the milk ducts, milk-producing lobules, connective tissue, and in some cases, lymph nodes (if lymph nodes are affected, this is known as node positive (N+) disease; if not, it is node negative (N-)). ²

2. How different do the cancer cells look versus normal cells? This is what doctors mean when they talk about the "Grade."²

Grade 1

Close to a normal cell

Grade 3

Significantly abnormal cells

3. How big is the tumour?

This is the diameter of the primary breast cancer tumour. Results range from T1 (2 cm or less) to T3 (larger than 5 cm) or T4 (tumour of any size with further spread).²

4. How fast is the tumour growing?

This is measured by looking at the cell protein Ki-67. Increasing levels indicate tumour cell profileration and growth.²

- 5. Do hormones play a role in helping the tumour grow?

 Some of the receptors on the tumour cell surface may use oestrogen or progesterone to stimulate cell growth.²
- 6. Does the tumour express HER2? In some patients, HER2 (human epidermal growth factor receptor 2) genes are amplified or overexpressed, favouring cancer cell growth and survival.³

Based on these assessments, your breast cancer could be classified as:^{2,3}

Hormone receptor-positive (HR+) (ER+ and/or PR+)

The tumour cells have hormonal oestrogen (ER+) and/or progesterone receptors (PR+).

HER2-positive (HER2+)

The tumour tests positive for HER2 protein or gene overexpression.

Triple-negative (ER-, PR-, HER2-)

The tumour cells have no oestrogen or progesterone receptors. It also means they do not have HER2 protein, i.e. are HER2-negative.

Triple-positive (ER+, PR+, HER2+)

The tumour cells have all three types of receptor; oestrogen, progesterone and HER2 receptors.

KNOWING TUMOUR BIOLOGY ALLOWS DOCTORS TO SELECT SPECIFIC TREATMENTS TO HELP PREVENT IT GROWING FURTHER AND/OR SPREADING.

Early-stage breast cancer treatment pathway

Treatment of breast cancer involves multiple steps with different approaches. These will be adapted to the type of tumour you have, with the overall aim of not only treating the initial tumour but also providing the highest level of protection from the cancer spreading or coming back.

Considerations before starting treatment

Fertility/contraception⁴

If you are of childbearing age, you have to know that some therapies may affect fertility and that pregnancy is not possible during most of the treatments.

Your oncologist can ask for the support of fertility specialists in order to preserve your fertility before the treatments start.

Keep in mind that contraception is always advised during the treatment of the cancer.

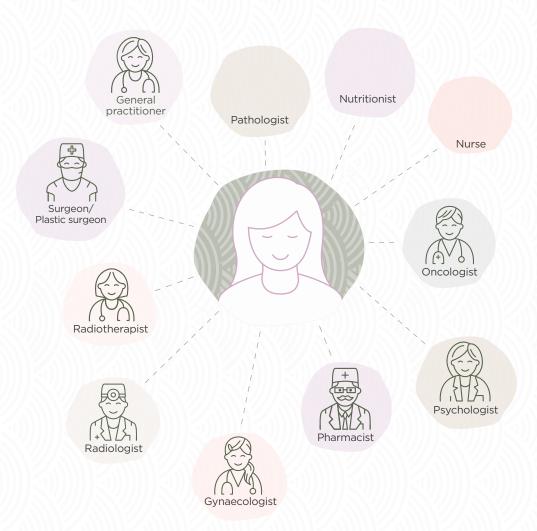
Genetic counselling

In some families, there are many cases of cancer. Sometimes it may be linked to genetic predispositions.

If you are considered at risk, genetic testing and related counselling will be provided to you and your relatives to improve the chances of cancer prevention and treatment.

The healthcare team

There are a number of healthcare professionals from different disciplines who will support you throughout your treatment, referred to as a multidisciplinary team. You play an important role in discussing your treatment with your team to help ensure the right decisions are made for you and with you.⁵



Note: the healthcare team can vary depending on country and/or hospital as well as on the individual patient case. Also most members of the healthcare team may be connected, but not all.

Early-stage breast cancer treatments

Breast cancer treatment is not a 'one size fits all' approach. Although tumour biology is important, your choices and preferences also need to be considered and discussed with the treatment team.

There are two major therapy categories:

LOCOREGIONAL THERAPY

Treatment restricted to a local part of the breast, usually where the tumour is located.



Treatment using substances that travel through the bloodstream to reach cancer cells anywhere in the body.

Depending on where it comes in the treatment strategy, systemic therapy can be:

- Neo-adjuvant treatment that happens before surgery
- Adjuvant treatment given or taken after surgery
- Extended adjuvant treatment to be continued after the completion of standard adjuvant treatment.

Treatments from these two categories can be combined to form a treatment strategy specific to your tumour biology, with the aim of providing the best possible result.

LOCOREGIONAL THERAPY⁶

Surgery

Physically removes the tumour. This could mean removing:

- the tumour and surrounding normal tissue
- the axillary nodes
- the entire breast (if mastectomy)

It can also include breast reconstruction surgery and sentinel lymph node removal during diagnosis.

Radiotherapy

Kills cancer cells or shrinks tumours on the treated part of the breast.



SYSTEMIC THERAPY⁶

Chemotherapy

Destroys cancer cells or slows down their growth through a combination of drugs.

Hormonal therapy

Slows down or stops the growth of hormone-sensitive tumours.



Targeted therapy

Turns off specific targets of tumour cells that are involved in tumour growth.

Treatments are often potent and may lead to side effects. The good news is that there are more and more approaches available to help manage these side effects to make you feel more comfortable.⁷

Your plan for early-stage breast cancer

On the following pages you have the opportunity to map out your own breast cancer diagnosis and treatment pathway, and note down the contact details of your dedicated healthcare team.

As you go through your treatment, remember to track how the treatment makes you feel both emotionally and physically.

This will make it easier to talk with your healthcare team, so that together you can take the appropriate steps to make your treatment as comfortable as possible.



Together with your doctor, tick the boxes in the table below that are relevant to your diagnosis. Also, use the notes section to write down any other information that you feel is important.

Your breast cancer diagnosis

Tumour biology	ER+ (Oestrogen receptor-positive) PR+ (Progesterone receptor-positive)	HER2+ (HER2-positive) Triple-negative (ER-, PR-, HER2-)	Triple-positive (ER+, PR+, HER2+)
Nodal status	N+	N-	
Tumour grade			
Tumour size			
First treatment step	Neo-adjuvant*	Surgery**	
NOTES			

^{*}Please go to page 14.

^{**}Please go to page 15.

Ask your doctor to help you track your treatment pathway by ticking the type of therapy you receive at each step. The number of steps you undertake may vary according to tumour biology and therapy response. Also, use the notes section to write down any side effects and any other information that you feel is important.

Your breast cancer treatment pathway starting with neo-adjuvant

	Chemotherapy	Hormonal therapy
STEP 1	Targeted therapy	
	Surgery*	Lymph node surgery
STEP 2	Concomitant reconstruction	Subsequent reconstruction
	Radiotherapy	Chemotherapy
STEP 3	Hormonal therapy	Targeted therapy
CTED 4	Radiotherapy	Chemotherapy
STEP 4	Hormonal therapy	Targeted therapy
	Radiotherapy	Hormonal therapy
STEP 5	Targeted therapy	
STEP 6		
NOTES		

Ask your doctor to help you track your treatment pathway by ticking the type of therapy you receive at each step. The number of steps you undertake may vary according to tumour biology and therapy response. Also, use the notes section to write down any side effects and any other information that you feel is important.

Your breast cancer treatment pathway starting with surgery

	Surgery*	Concomitant reconstruction
STEP 1	Lymph node surgery	Subsequent reconstruction
	Radiotherapy	Chemotherapy
STEP 2	Hormonal therapy	Targeted therapy
	Radiotherapy	Chemotherapy
STEP 3	Hormonal therapy	Targeted therapy
	Radiotherapy	Chemotherapy
STEP 4	Hormonal therapy	Targeted therapy
	Chemotherapy	Targeted therapy
STEP 5	Hormonal therapy	
STEP 6		

NOTES

^{*} May include margin extension surgery.

Your healthcare team

Below, you can write down the contact details for your healthcare team.

	GP	Nurse	Oncologist	Surgeon
Name:				
Tel:				
Email:				
		////	×//////	
Name:				
Tel:				
Email:				
Name:				
Tel:				
Email:				

Note: the healthcare team can vary depending on country and/or hospital as well as on the individual patient case. Also most members of the healthcare team may be connected, but not all.

Below are some prompt questions on topics you might not have considered, but may be worth discussing with your doctor or nurse.

Questions about your cancer

- What type of breast cancer do I have?
- Is the cancer related to my family medical history?

Questions about your treatment

- Do I need neo-adjuvant therapy?
- How long will my treatment take?
- How will it affect my day-to-day life?
- What side effects can occur?
- Will the treatments affect my fertility?
- What can I do to prevent/help minimise side effects?
- How will I manage work?
- Will I lose my hair?

Questions about your care

- Who will be on my treatment team?
- Who is my main contact?
- Is supportive care available?
- In what case do I need to contact anyone?

NOTES	

Where to go next

We understand that there is a lot to take in at this time. It's important to know that you are never alone; there are many places to find information and comfort after your breast cancer diagnosis, from local support groups to Patient Association Groups and websites.

Below are a few links to more sources of information and guidance that you may find helpful following your diagnosis.

We hope that you have found this booklet informative and helpful and that you keep it with you along your treatment pathway.



Glossary

Adjuvant: treatment that is given after surgery to prevent the cancer from growing or returning.

Ductal breast cancer: cancer that is present in the milk ducts.

ER: oestrogen receptor, may be expressed on the surface of cancer cells.

HR+: hormone receptor-positive, cancer cells that express ER and/or PR on their surfaces.

HER2: a gene that is implicated in the growth of some tumours when it mutates.

Lobular breast cancer: cancer that is present in the milk-producing glands (lobules).

Malignant: refers to cells that have turned cancerous.

Margin extension surgery: an additional surgery that may be performed to ensure the area around the removed tumour is clear of cancer cells.

Neo-adjuvant: treatment given before surgery to aid a better outcome.

PR: progesterone receptor, may be expressed on the surface of cancer cells.

Receptor: a molecule on the surface of a cell that responds to selected substances

Sentinel lymph nodes: the first lymph node station to which cancer cells are most likely to spread from the primary tumour. These nodes are identified, removed and examined during breast cancer surgery to determine whether cancer cells are present and, as a consequence, whether the entire lymph node chain is to be removed (lymphadenectomy).

Triple-negative: tumour cells that do not express ER, PR or overexpress HER2.

Triple-positive: tumour cells that express both hormone receptors and HER2.

Note: glossary to be adapted locally.



Sources

- 1. https://www.cancer.net/navigating-cancer-care/cancer-basics/genetics/genetics-cancer
- 2. https://breastcancernow.org/information-support/facing-breast-cancer/diagnosed-breast-cancer/diagnosis/questions-you-may-want-0
- 3. https://www.breastcancer.org/symptoms/diagnosis/her2
- **4.** https://breastcancernow.org/information-support/facing-breast-cancer/breast-cancer-in-younger-women/fertility-breast-cancer-treatment
- 5. https://www.healthywomen.org/content/article/your-breast-cancer-treatment-team
- 6. https://breastcancernow.org/information-support/facing-breast-cancer/going-through-breast-cancer-treatment
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