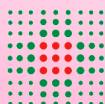


THE CURE OF BREAST CANCER



**Università
degli Studi
di Ferrara**



**SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA**
Azienda Ospedaliero - Universitaria di Ferrara
Azienda Unità Sanitaria Locale di Ferrara

*Centro Senologico
di Ferrara*



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THE TREATMENT OF BREAST CANCER

Dear Madam/s

This brochure is aimed at women undergoing treatment for breast cancer. Thanks to prevention programme, early diagnosis and new cancer therapies, more and more people are recovering or living with the disease for a long time.

It is important to be aware of all the opportunities offered by the Senology Centre of the Ferrara Health Authorities concerning the diagnosis and treatment paths for this disease and the methods adopted for taking care of the person with breast cancer within the Breast unit.

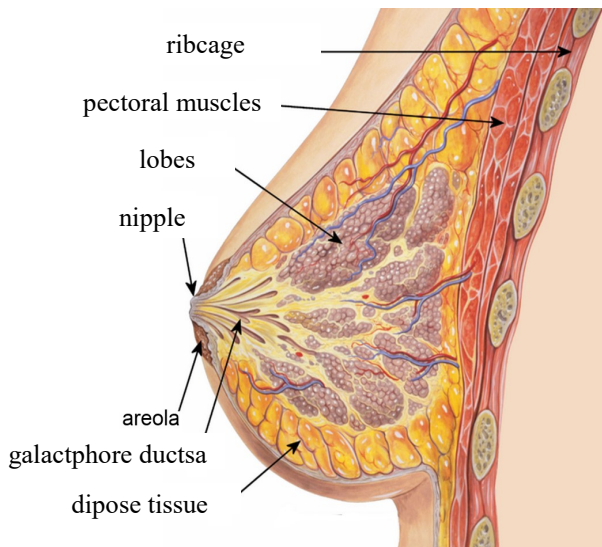
In this booklet you will find the main information on the type of tests, the different surgical techniques available and the care to be taken after surgery, to help you understand and actively participate in the moment of choice.

The Breast Unit ensures that all investigations, treatments and follow-ups are automatically scheduled and performed free of charge.

If you have any questions or concerns, please do not hesitate to ask for further explanation. The professionals at the Breast Unit are at your disposal for any further information you may require.

**The head of the PDTA
prof. Antonio Frassoldati**

GENERAL INFORMATION



What the breast looks like. The breast is made up of glands and tissues, which in the course of a woman's life change their structure as a result of hormone production and the menstrual cycle. Before the menopause, most of the breast is made up of the cells that produce milk. With menopause, the glandular tissue shrinks and is replaced by fat.

What is breast cancer.

Is a disease due to the presence of abnormal cells within the mammary gland.

In a healthy woman, the cells divide and reproduce according to precise rules, in an orderly and controlled manner. If this process of cell growth control fails, the cells begin to multiply in an uncontrolled manner, producing a formation that is called a tumour or neoplasm.

Over the past decades, much progress has been made in both the diagnosis and treatment of breast cancer. Today, in most cases, it is possible to perform an operation that allows the tumour to be removed while preserving the breast, and also the subsequent healing through targeted therapies.

THE DIAGNOSIS OF CANCER

Very often, the diagnosis is made by mammography, which is a quick and painless radiological examination that allows early detection of breast tumours. Mammography is offered to all women between 45 and 74 years of age as part of the screening programme by the Local Health Unit of Ferrara.

When breasts are very dense, e.g. at a young age, other investigations, such as ultrasound, may also be necessary. Periodic breast self-examination is also important to notice the appearance of lumps.

Breast carcinomas may include:

- **tumors with benign behaviour**- tumors with benign behaviour - carcinoma in situ: the cells remain localized and do not spread to other organs of the body;

-**tumors with malignant behaviour** -infiltrating carcinoma: the tumour may spread through the lymphatic or blood system, reaching axillary lymph nodes or other healthy organs, giving rise to metastasis or 'secondary tumour'.



YOU MUST KNOW THAT ...

Performing checks is also important before and after the screening age.

The types of check-ups depend on various factors and should be discussed with your general practitioner.

HOW TO CHOOSE TREATMENT

The treatment programme is proposed by a team of specialists, depending on the location of the tumour, size, axillary lymph node involvement and the biological characteristics of the tumour as defined by histological examination.



These biological parameters allow tumors to be divided into three main ones:

Luminal: which are wholly or partly governed by hormonal influences;
Her2positive: which are governed by specific non-endocrine stimuli; basal or triple negative: which are governed by specific molecular alterations. Other factors influencing the choice of treatment are age, possible menopausal situation and the person's general state of health.

In order to decide on treatment, doctors must determine the situation, which consists in assigning the tumour a '**stage of development**' that may be more or less advanced and that is linked to specific courses of treatment.

WHICH SPECIALISTS WILL DEAL WITH MY TREATMENT PROCESS /1

The nurse in charge of the case, (case manager) will follow you at every stage of the disease, from the communication of the diagnosis to the end of the treatment, and will always be your point of reference both in the organization of care activities and in the relationship with the specialists at the Senology Centre.

The breast radiologist. He specializes in the mammographic and ultrasound diagnosis of breast lesions. In suspicious lesions he performs needle biopsy (taking a small part of the lump) or needle aspiration (localized taking of cells).

The surgeon. Specialized in tumour removal techniques and the plastic surgeon, who specializes in breast reconstruction after surgery.

The Nuclear Physician. Specialized in the recognition of tumour lesions to facilitate surgery and the detection of the sentinel lymph node.

The Anatomic-pathologist. Specialized in identifying and recognizing different types of diseases by examining tumour cells or tissue samples.

The Oncologist. Specialised in the use of drugs: chemotherapy, hormones or biological drugs, to treat tumours or to prevent their recurrence.

WHICH SPECIALISTS WILL DEAL WITH MY TREATMENT PROCESS /2

The radiotherapist. uses radiation to combat, eliminate and prevent the development of cancer cells.

The Physiatrist. Is in charge of establishing rehabilitation therapies for the limb because breast surgery can lead to the arm being affected by the operation. The proposed treatment, when indicated, will then be performed by Physiotherapist .

The Psycho-oncologist. is the reference figure to help people and their families deal with situations of psychological distress and suffering.

The Geneticist. through interview and examination of health records, assesses the risk of predisposition to breast cancer and proposes possible genetic testing for further investigation.

Nurses. They are responsible for direct care, independently or in support of doctors, at the different stages of the care pathway. They are available to patients for information and clarification in cooperation with the case manager

The general practitioner (GP). Collaborates in the clinical course outside the hospital, will take charge of the needs that may arise and will always be informed about the evolution of the disease until recovery.

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HOW TO TREAT

Surgery to remove the tumour is often the first step in curing the disease.

In the case of early diagnosis and when the tumour is sufficiently small and circumscribed, surgery alone may be sufficient to cure it.

In most cases, medical therapy and/or radiotherapy is performed after surgery.

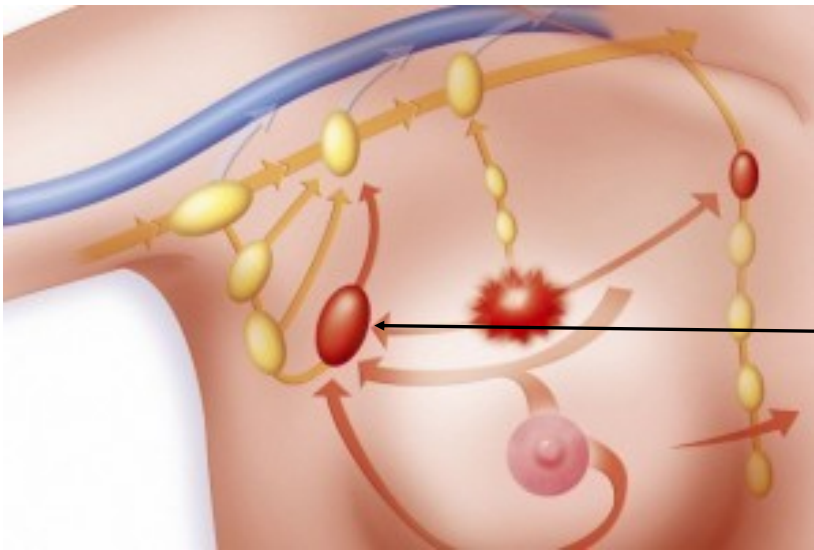


YOU MUST KNOW THAT...

There are also situations in which chemotherapy or other medical therapies are recommended prior to surgery, in order to reduce the size of the tumour and make the operation less extensive (neoadjuvant therapy).

THE SURGERY

The choice of the type of surgery, conservative with only partial removal of the breast (quadrantectomy) or radical removal (mastectomy) depends mainly on the size, aggressiveness or otherwise of the tumour and its location in the breast.



When there is no certainty that the axillary lymph nodes are attacked by the disease, it is recommended to remove the: **sentinel lymph node**, which is the first lymph node to be affected when cancer cells spread.

The sentinel lymph node detection technique consists of injecting a minimally radioactive drug (usually one day before surgery). The surgeon then uses a radio-guided surgery probe, passing slowly over the lymph nodes in the axillary cavity, to locate the area of greatest signal emission.

The sentinel lymph node, once located, will be removed:

- either by a small operation under local anaesthesia and analysed later by the anatomo-pathologist.
- or, by surgery under general anaesthesia together with the removal of the tumour.

IN CASE OF MASTECTOMY: WHAT CAN BE DONE

In the case of mastectomy surgery of one or both breasts, it is important to reconstitute the operated breast or breasts, not only for an aesthetic appearance, but also to maintain a correct position of the shoulders and back, by restoring equal weight to the two halves of the body.

To return to the natural shape of the breast, either the breast can be surgically reconstructed, or an external prosthesis can be used. It is important that the choice between these two options is a personal one, taking into account one's own needs, and discussed with the plastic surgeon.

Surgical breast reconstruction to restore the shape of the removed breast can be performed by inserting an implant, or using portions of muscle or tissue taken from other areas of the body.

Reconstruction can be performed on the same occasion as the mastectomy, or at a later date.

To achieve greater symmetry of the breasts, surgery can also be performed on the healthy breast. It is important to carefully evaluate together with the surgeon both the characteristics of this additional operation and the changes in breast sensitivity and function following reconstruction.

External breast implants have the shape of the breast and are inserted into a special bra. These prostheses, even if placed in contact with the skin, do not cause allergic reactions. They are available in different shapes, easy to sanitize and resistant.

They are considered health facilities provided by the National Health Service.

WHAT WILL HAPPEN AFTER THE SURGERY / 1

From the outcome of the histological examination and other useful tests, the oncologist will evaluate the need for any **subsequent therapies, adjuvant systemic therapies and the radiotherapist** will evaluate the need for any radiation treatment. It will be the task of these specialists to help you understand the risks you can run and the improvements you can achieve, also considering the possible side effects.

Adjuvant systemic therapy includes: chemotherapy, biological therapy and hormone therapy.

What is Chemotherapy?

It consists of the administration of drugs through intravenous injections or drips, capable of destroying the multiplying cells. It is performed in hospital with daily hospitalization (Day-Hospital), with different duration based on the type of drugs used.

During therapy, a room with an armchair or bed is available to feel comfortable and quiet.

There is no single type of chemotherapy, but there are numerous drugs of different types and with a different degree of toxicity, which can be used alone or in combination with each other according to protocols used all over the world. A specific therapeutic program is then set up for each person, which will be illustrated in detail.

Chemotherapy is administered in cycles, which means giving drugs at different times and following weekly, monthly or other cadences, with an overall duration ranging from 4 to 6 months. In some cases the oncologist could propose the execution of a molecular test that helps the Center to estimate the benefit of chemotherapy.

WHAT WILL HAPPEN AFTER THE SURGERY / 2

Chemotherapy: side effects

Chemotherapy can cause nausea, vomiting, hair loss and other discomfort. Not all drugs cause the same effects and not all people have the same disorders. It will be the healthcare professionals' responsibility to help you understand how to deal with these problems. Before each cycle of chemotherapy, a visit to the oncologist is scheduled, with whom you can talk about the symptoms and clarify any doubts.

What is Biological Therapy?

In recent years, some biological therapies have been developed that act on tumor cells that have particular "sensors" called receptors on their surface. If the receptor called HER2 is present, therapy with specific drugs will be recommended. These drugs have the advantage of having few or no side effects. This therapy can be started together with chemotherapy and then continued alone or in association with hormone therapy and/or radiotherapy.

What is Hormone Therapy?

Most breast tumors are called hormone-sensitive because they have receptors to which hormones that normally promote cell growth can bind. In these cases, a specific hormonal treatment can be performed. There are currently different types of hormone therapy on the market and its duration varies depending on the case, from 5 to 10 years.

What is Immunotherapy?

It is a therapy that is used if the disease has receptors for estrogen and Her2. It aims to stimulate the body's immune system to fight the tumor.

LOCO-REGIONAL ADJUVANT THERAPY (RADIOTHERAPY)

What is Radiotherapy? Radiotherapy consists of exposure to a beam of radiation in the chest wall or axillary cavity after surgery, to eliminate any remaining cancer cells.

The course of radiotherapy can last from 4 to 6 weeks, with applications lasting a few minutes per day and is a treatment that usually does not cause damage to other surrounding healthy tissues.

The most frequent consequence is redness (erythema) of the skin in the irradiated area towards the end of the treatment and in the weeks immediately following.

To avoid/reduce the risk of redness it is important to use **specific moisturizing creams**, which will be recommended before starting the treatment.

In particular cases, radiotherapy may be indicated together with surgery, which will then be performed in the operating room, with a technique called Intraoperative Radiotherapy (IORT).

REHABILITATION

Motor rehabilitation after undergoing breast surgery is an important re-educational moment for complete functional recovery and for the prevention of possible complications.

To this end, a visit with the Physiatrist is prescribed to evaluate the situation and decide on the necessary treatments.

Possible complications

| AREAS WHERE THE COMPLICATION IT MAY OCCUR | COMPLICATIONS |
|--|---|
| Peripheral nerves: of the arm-axilla. | Sensitivity deficit, tingling, difficulty in movement. |
| Lymphatic vessels. | Lymphedema*. |
| Shoulder joint, Difficulty in movement, pain, stiffness. scapula, ribs and vertebrae. | Difficulty in movement, pain, stiffness. |
| Inflammations / infections of soft tissues of the limbs and vessels | Fever, spreading red patches, redness and local heat in the arm or chest, formation of painful cords along the arm. |
| Scar and nearby tissues | Retraction, pain, bruising, limitation of arm movement. |

Certainly the most frequent and delicate problem to deal with is ***lymphedema**, i.e. the increase in size of the upper limb due to accumulation of lymph. The physiatrist's evaluation will allow you to plan the most appropriate treatment for the clinical case.

PSYCHOCONCOLOGICAL SUPPORT

To address the psychological difficulties linked to the diagnosis of breast cancer, the psychological support of a professional can be important and can represent an important help in recovering the well-being and quality of life of the patient and her family.

The clinical consultancy and support activity is in fact available for the woman and her family members and is provided in the various healthcare settings during all phases of the disease, based on the assessment of specific needs. There are also supportive/expressive therapy groups where you can meet people with the same path and be able to share thoughts and concerns together to find mutual understanding and support.



To access the service you need to contact the relevant Case Manager who will arrange the first meeting.

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GENETIC CONSULTING SERVICE

During mammography screening or oncological treatment, specialists can, according to defined standards and protocols, evaluate the need to request genetic counseling for those people who are affected by genetic diseases or at risk of having them. If necessary, the Center's professional arranges an appointment for the patient. This is an interview in which a person or family at risk of genetic diseases is informed about the probability of developing or transmitting a disease, its clinical characteristics and methods of treatment and prevention. During the consultation, you may be advised to undergo in-depth genetic testing. The genetic test to search for specific genes (BRCA 1 and 2 in particular) may be requested even in the absence of a family history of breast or ovarian cancer, to understand if some specific drugs may be used.



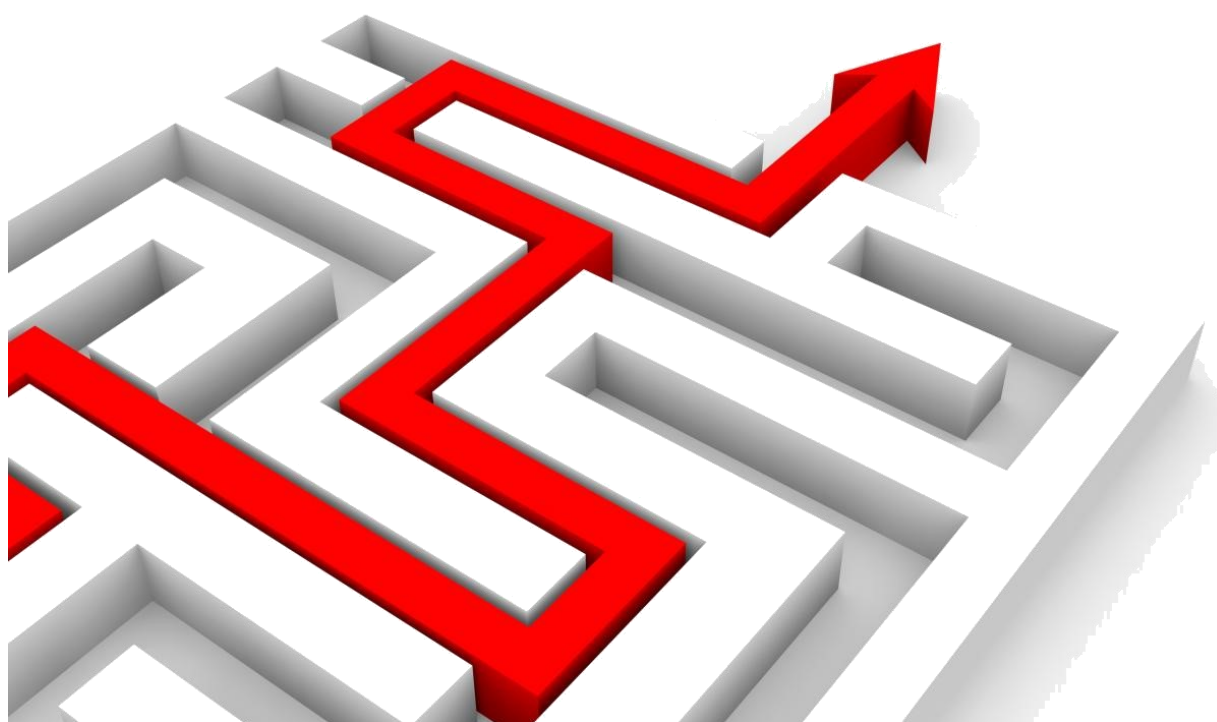
FERTILITY PRESERVATION

Breast cancer treatments can jeopardize the possibility of becoming future parents. For this reason, in young patients who wish it and in compliance with protocols and guidelines, a consultation with a specialist from the Medically Assisted Procreation Center can be requested and arranged directly by the Center's professional.

AFTER THE END OF THE TREATMENT PROCESS: THE FOLLOW-UP

Once the post-operative therapy period has been completed, checks are necessary to monitor the effects of the treatments over time and detect any recurrence of the disease early.

These checks are called follow-up and consist of visits with the doctor, laboratory and radiology tests, decided and prescribed (in compliance with protocols and guidelines) directly by the specialist of the Senology Center who is in charge of the follow-up of the patient. All checks are booked automatically by professionals: the patient only has to go to the agreed appointments.



However, it is important to consult your GP whenever you feel it is useful.



USEFUL NUMBERS AND ADDRESSES

Voluntary associations



A.N.D.O.S. onlus

ASSOCIAZIONE NAZIONALE DONNE OPERATE AL SENO

COMITATO DI FERRARA

A.N.D.O.S. (National Association of Women on Breast Surgery).

Via Panetti,40 - Ferrara | Tel. 351.5421086 (secretariat)

E-mail: andosferraracomitato@gmail.com



L.I.L.T. ONLUS (Italian League for the Fight against Cancer).

Cel. 340.9780408 (secretariat)

E-mail: segreteria@legatumoriferrara.it



A.N.T. ONLUS (National Cancer Association).

Via Cittadella, 37/39 - Ferrara | Tel. 0532.201819

E-mail: delegazione.ferrara@ant.it



A.D.O. ONLUS (Domiciliary Oncology Association).

Via Veneziani, 54 - Ferrara | Tel. 0532.977672.

E-mail: segreteria@adohtf.it



"Woman's Heart" Association

Lagosanto- Ferrara | E-mail: cuoredidonnaferrara@gmail.com

FOR MORE INFORMATION

Breast Unit

TEL. 0532.237862 – 334.1365533

FAX 0532.236150

Mondays from 9.00 to 14.00;
from Tuesday to Friday from 9.00 to 16.00.

E-mail: centrodisenologiaferrara@ospfe.it



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