

OCTOBER IS
THE MONTH OF
PREVENTION
AGAINST BREAST
CANCER

IT IS TIME TO TAKE
CARE OF YOURSELF.

È ORA DI PRENDERTI
CURA DI TE.



BENEDETTA RINALDI FOR LILT



LILT

LEGA ITALIANA PER LA LOTTA CONTRO I TUMORI

prevenire è vivere

for

women

CAMPAGNA NAZIONALE 2020





for **women**
CAMPAGNA NAZIONALE 2020

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LETTER FROM THE PRESIDENT



Prevention for a longer and healthier life!

Prevention for a longer and healthier life!

Recently, the incidence of breast cancer has been on the rise, as it is now the most frequent tumor.

Last year in Italy, 53,500 cases of breast cancers have been diagnosed, a growing trend (+0.3%), thus making it the most common neoplasm for all age groups.

Ironically though, despite this increase in incidence, we see a slow but steady decrease in mortality: people get sick more frequently but die less often!

People get sick more frequently because, in addition to an increase in life expectancy, there has been a substantial increase in the risk factors that lead to the development of this pathology. People die less often because today we have at our disposal an advanced and increasingly groundbreaking technology that enables us to identify millimetric tumorous lesions, with low degrees of aggressiveness, limited malignancy indexes and an almost negligible metastatic development or no metastasis at all (spread of disease to other organs and/or systems). Also, our diagnostic tools today are increasingly more accurate, thorough, and precise, such as ultrasound elastographies, breast tomosynthesis (3D) or with contrast, breast magnetic resonance imaging (MRI), and targeted biopsies with imaging guidance.

Furthermore, today we have access to targeted medical treatments that guarantee diagnostic and therapeutic paths almost tailored to the individual.

Breast cancer also affects a very small percentage of men (1%). The main symptom is the presence of a lump usually under the areola-nipple.

Overall, as far as breast cancer goes, we still face a number of issues that remain unresolved to this day and that we will have to overcome, a scenario that has been exacerbated by the current Covid-19 health crisis:

- *identifying the disease at a very early stage (preclinical);*
- *occurrence of tumorous lesions in women at an increasingly younger age;*
- *standardization of breast screenings (still non-homogenous) nationwide;*
- *lowering the age of screenings and possibly extending them to ultrasound scans;*
- *active participation of the education system (educating young girls and teaching them how to perform self-exams);*
- *regular and well-structured clinical and instrumental checks for women who have been diagnosed with breast cancer so as to immediately identify any relapses or metastasis;*
- *taking care of the estimated 800,000 Italian women who have been through breast cancer and of their families, following a humane and personalized approach using research studies (genomics, immunology) and implementing dedicated centers for breast treatment: the Breast Unit!*

This is the scenario in which The Italian League for the Fight Against Cancer (LILT, *Lega Italiana per la Lotta contro i Tumori*) operates, one of its main missions being educating teenagers on how to perform breast self-exams on a monthly basis, as well as stressing the importance of vaccines (for boys as well) to avoid HPV infections, which are responsible for other tumorous pathologies that affect the cervix. Finally, more than ever before it is essential to give women with breast cancer psychological and regenerative-aesthetic support so that they can overcome this crucial phase in their lives. Our joint efforts move towards one big goal: *"No women with breast cancer!"*

Prof. Francesco Schittulli
Breast Surgeon-Surgical Oncologist
National President of the Italian League for the Fight Against Cancer



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ABOUT BREAST CANCER

A woman's breast is the organ that fulfills three noble functions: aesthetic, sexual, and maternal. It is made of the glandular, adipose (fat) and fibrous tissues. This last one acts as the structure for the gland, which is rich in blood vessels, lymphatic vessels, and nerve bundles. The gland is surrounded by the skin envelope and supported upon the pectoralis major.

Usually the gland is more active in younger women who are not in menopause yet. On the other hand, during menopause and as the years go by, the fat tissue of the gland tends to grow. That in turn makes mammographies for younger women or women with dense breasts in general harder to interpret, making it necessary to add a mammary ultrasound and sometimes a magnetic resonance imaging.

The cells that make up the gland change with the hormonal cycle and are constantly reproducing, whether to ensure a turnover of cells or to repair damaged cells. Cell reproduction and cell growth are complex processes regulated by multiple genes. Under normal conditions, these would follow a precise and regular program. Aging and environmental factors, however, can damage these genes, resulting in an unusual and uncontrolled cell growth which then leads to the development of a tumor (carcinogenesis).

Carcinogenesis is a slow process that takes some years. The diagnostic and instrumental exams aimed at early diagnoses available today allow us to detect the cancer in its initial stage of growth, when there are not yet signs of the tumor, nor can it be touched (preclinical lesion) or even in a stage that precedes the development of the invasive cancer (preneoplastic lesion). In Italy, one in eight women suffers from breast cancer. It is estimated that more than 50,000 cases of mammary carcinoma are being diagnosed every year.

Luckily though, since 2000, mortality rates for this neoplasm have been gradually decreasing. Most breast cancers (about 70%) originate from duct cells (ductal carcinoma), while a smaller percentage from lobule cells (lobular carcinoma).

An important distinction must be made between invasive carcinoma and carcinoma in situ:

- **Carcinoma in situ:** neoplastic cells remain within the ducts or the lobules and do not infiltrate the surrounding tissue. Usually these early neoplasms have no potential for metastasis.
- **Invasive Carcinoma:** cancer cells leave the ducts and go through the lymphatic and blood vessels, potentially reaching the lymph nodes or other organs/systems. Some of the biological features of the tumor help better define the prognosis (prognostic actors) and select the most effective therapies (predictive factors) for treating breast cancer.

ESTROGEN AND PROGESTORONE RECEPTORS

In most cases, cancer cells receptors specifically attract estrogens and progesterone, which stimulate their growth and differentiation. All cancers with receptors for estrogen and/or progesterone can be treated effectively with drugs that interfere on the hormonal production or the hormonal action (hormone therapy).

- **Cellular differentiation grade:** it is a marker that indicates how similar a cancer cell is to its healthy counterpart. A well-differentiated cancer has a better prognosis than a poorly differentiated one.
- **Ki-67 proliferation marker:** it indicates how active the growth of a cancer is. The higher the marker, the higher the growth speed.
- **HER2 receptor:** it is a protein found on the surface of cancer cells that regulates their growth. A strong presence of this receptor means that the disease is highly aggressive, however specific therapies have been developed to target this protein that acts as a physiological switch (biological therapies).

The constant progresses we are making in understanding the biology of mammary cancers, allow us to diagnose and treat this disease, helping us identify innovative and tailored therapies.



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PRENEOPLASTIC LESIONS

The development of breast cancer is sometimes preceded by preneoplastic lesions.

Those causing the most concerns today are:

- **Atypical Ductal Hyperplasia;**
- **Lobular intraepithelial neoplasia (LIN).**

Preneoplastic lesions can be a risk condition for the development of a cancer or, more rarely, hint at the presence of a carcinoma in the nearby tissue. For this reason, when these are found histologically, it might be necessary to surgically remove the concerned area or to monitor it more closely.

PREVENTING BREAST CANCER

Prevention strategies follow two specific and well-integrated approaches: primary prevention and secondary prevention. Primary prevention aims at detecting and removing the causes that lead to the development of a cancer (risk factors).

The main risk factors related to the occurrence of breast cancer are not modifiable. Other factors, if removed, can instead substantially decrease the risk of developing breast cancer.

UNMODIFIABLE RISK FACTORS

- **Age:** the chances of suffering from breast cancer increase as the woman gets older (although more than 50% of breast cancers are diagnosed in women less than 55 years old).
- **Reproductive history:** early menarche (before the age of 11) and late menopause (after the age of 55) result in being exposed to the hormones for an extended period; nulliparity (no child-birth) or first child-birth after the age of 35; no breastfeeding.
- **Family history of breast and/or ovary cancer:** the risk of developing breast cancer is around 10%.

- **Neoplasm and pre-existing treatments:** these can result in relapses.

- **Mutations of specific genes:** certain gene mutations (like those of the BRCA1 and BRCA2 genes), if inherited, increase the risk of developing a breast and ovary cancer. It is therefore important to verify the mutational status of these genes if there is a family history of breast cancers.

MODIFIABLE RISK FACTORS

- **Hormone replacement therapy:** estrogen and progesterone drugs taken after menopause to mitigate its symptoms can slightly increase the risk of developing a breast cancer. In any case, the risk is proportional to the length of the treatment.
- **Obesity:** the risk of a breast cancer is higher in women that during menopause have become obese or overweight.
- **Lack of physical activity:** exercising regularly reduces the risk of developing a breast cancer, also helping maintain an optimal body weight and decrease fat mass.
- **Low intake of fruit and vegetables:** a high-calorie diet heavy on fats and processed sugars or with an excessive intake of red meat increases the risk of developing a breast cancer, as well as other pathologies.
- **Alcohol:** the risk of developing a breast cancer increases proportionally to alcohol consumption;
- **Smoking:** apparently smoking increases the risk of getting breast cancer as well.

Changing lifestyles means removing those risk factors that account for more than 20% of all breast cancers. For this reason, the scientific world believes that a healthy lifestyle is an effective tool to prevent mammary carcinoma.



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Some other useful information to know:

- *Benign alterations of the breast (especially cysts and fibroadenomas) and pain do not increase the risk of developing a mammary cancer;*
- *in case of a documented and significative family history of cancers, it is recommended to seek help from specialized centers and consult a geneticist or receive adequate instructions;*
- *recent studies have helped us better understand the role of hormone replacement therapy (HRT) as a potential risk factor. HRT should therefore be justified and always prescribed by a doctor.*

Secondary prevention aims at getting a diagnosis as early as possible. Detecting a cancer (usually through a mammography or an ultrasound) in its earlier stage allows us to resort to less invasive surgical therapies and gives the patient a better chance of recovery. That is, indeed, our secret weapon in the fight against breast cancer.

DIAGNOSIS

Detecting a cancer during its earliest stage is fundamental. The chances of recovery for a cancer smaller than one centimeter are more than 90%. Surgeries are more and more conservative and cause no serious disfigurement for the woman.

To self-examine your breast properly you should:

- *Feel both of your breasts in a circular motion with your fingers together.*
- *Do not forget to feel your armpit and your nipples, too.*
- *Check your breasts in front of a mirror for any dimpling of the skin.*
- *Lightly squeeze your nipple and check for any discharges. In case of discharges, please consider undergoing a cytological examination of breast fluids.*

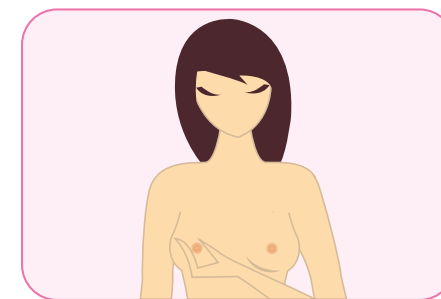
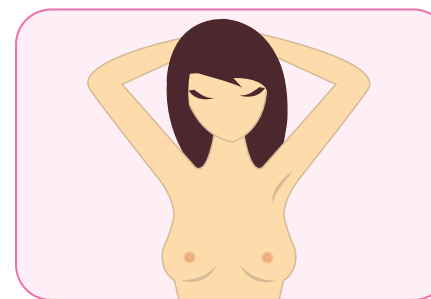
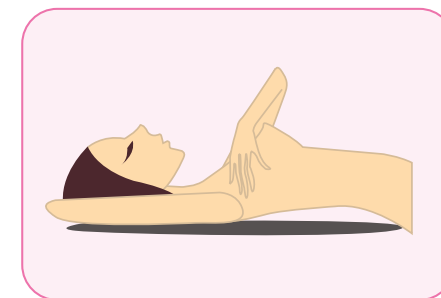
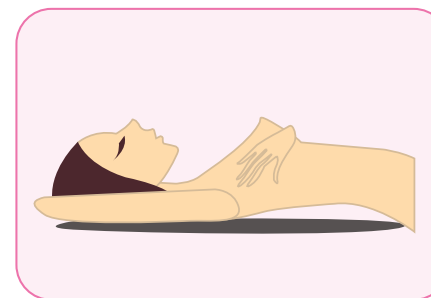
SELF-EXAM

Every woman should perform the exam every month from an early age. The procedure is simple, but it should be taught by a healthcare professional.

If any occurring or persistent changes are detected, they must be brought immediately to the doctor's attention.

In particular, look out for:

- *Any changes, redness, thickening, puckering, or lumps in the contour of the breast or the areola.*
- *Any puckering of the nipple, especially if these are recent and if there are rashes or scabs on the skin of the areola.*
- *Any discharges from the nipple, especially of serum or blood.*
- *Any swelling of the breast or the armpit.*
- *Any redness and/or changes in size of the breast.*





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CLINICAL BREAST EXAM

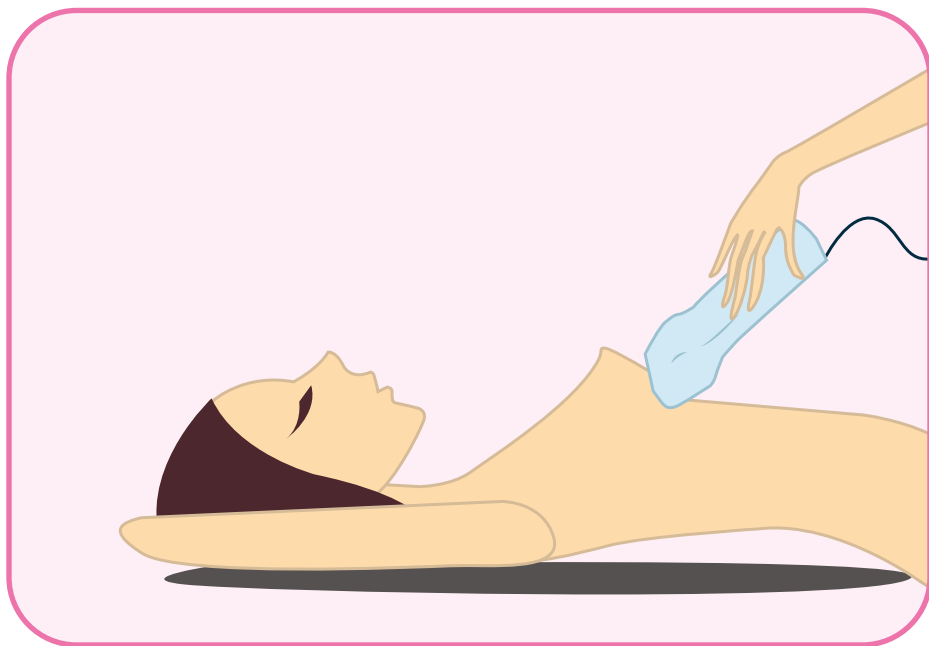
It is a breast exam performed by a doctor or a specialist to detect any lumps or other clinical suspicious signs that are always worth examining.

MAMMOGRAPHY

It is the best technique to diagnose most breast cancers in their early stage, even before they are palpable.

For this reason, a mammography is currently the most suitable technique to be used as a base test for a screening program and it is essential in case of a suspected carcinoma, regardless of the woman's age.

Specifically, the radiologist will look out for any microcalcifications, in which case an image-guided biopsy should be planned.



BREAST TOMOSYNTHESIS

Breast tomosynthesis is a technological step-up from the digital mammography and a useful tool for an early diagnosis of breast pathologies. It is a digital tridimensional high-definition mammography that allows us to analyze the breast layers. Breast tomosynthesis can especially be useful for analyzing dense breasts and detecting lesions that might be hidden by overlaying normal structures.

BREAST ULTRASOUND

Despite the constant revolution of imaging techniques and the rapid development of technology, ultrasounds should not be used as the sole test for an early diagnosis of non-palpable breast cancers.

Moreover, it is sometimes vital for an early diagnosis of benign nodular lesions. It is recommended to combine the ultrasound with the mammography and, in some cases, with breast magnetic resonance imaging.

MAMMOGRAPHY OR BREAST ULTRASOUND?

Mammography is best suited for women older than 40 years. It is the ideal exam to detect any microcalcifications which might suggest the presence of tumorous or preneoplastic lesions. Today, it is preferable to use 3D tomosynthesis rather than the traditional technique.

For younger women of childbearing age, because of the higher density of the breast, the examination ends with a breast ultrasound and, sometimes, with a breast magnetic resonance imaging.

BREAST MAGNETIC RESONANCE IMAGING (BREAST RMI)

The use of Breast RMI for an early diagnosis of breast cancer is limited to the diagnostic monitoring of women who are carriers of BRCA gene alterations or in women with dense breast and/or a strong family medical history.

Breast RMI is used whenever previous exams have given mixed results or when a carcinoma has been confirmed, to do a better local staging.



NEEDLE DRAWS

These are usually done under ultrasound guidance, either using a thinner needle (Fine Needle Aspiration, which allows to do a cytological examination of the samples) or using a slightly thicker needle (Needle Biopsy, which allows to do a histological examination of the excised tissue samples).



Vacuum-Assisted Biopsy is a minimally invasive biopsy performed under local anesthesia. Unlike the other type of biopsy, it allows to remove several tissue samples for a more comprehensive histological examination with a single incision.

It is usually an outpatient procedure that does not require any sedation other than a simple local anesthesia. This diagnostic tool is by far the most used in analyzing microcalcifications.

That means that if a tumorous or preneoplastic lesion is found, it is still necessary to do a surgery, however small.

OTHER CLINICAL AND DIAGNOSTIC EXAMS

Once a breast carcinoma has been diagnosed, other exams can be useful to assess the spread of the disease (staging). These include a standard chest x-ray, an abdominal ultrasound, and a tumor markers assay (CEA and Ca15-3).

Sometimes it may be necessary to end the staging with a bone scan. In case of an advanced disease, Computed Axial Tomography (CAT) and Positron Emission Tomography (PET) can be used as further exams or to assess the effectiveness of therapies.

THE INHERITANCE RISK

Like other cancers, breast cancer is in most cases (92%) a sporadic cancer.

That means that the damages affecting the genes that will lead to the development of the cancer are not inherited, but rather occur in the individual during his life for several endogenic and exogenic factors.

In more than 8% of cases, breast cancer develops following specific genetic mutations, like those of the BRCA1 and BRCA2, inherited as part of the genetic makeup received from the parents. It has been shown that a woman carrying these specific mutations has a higher risk of developing a breast and/or ovary cancer during her life.

Specifically, women who inherited the BRCA1 mutation have a 45-80% chance of developing a breast cancer throughout their lives and a 20-40% of developing an ovary cancer, while women who inherited the BRCA2 mutation have a 25-60% chance of developing a breast cancer and a 10-20% chance of developing an ovary cancer. Clearly, inheriting the mutation does not necessarily mean that at some point in life one will develop a cancer, instead it means the carrier has a hereditary disposition, since she inherited a higher chance of developing the disease than the people who are not carrying the mutation.

A multidisciplinary genetic and oncological assessment can resolve any doubts and determine whether it is necessary to do genetic tests to define the specific oncological risk. These tests should therefore be requested and performed solely within a multi-specialty visit with a cancer geneticist.

LILT promotes educating women on how to use genetic tests properly for an early diagnosis of breast cancer in the context of a multidisciplinary genetic and oncological consultation.

Knowing the proper use of genetic tests and other tools, the patient understands her individual risk of developing the disease and can be guided towards the best preventive measures and therapies.



SCREENING PROGRAMS

A screening test is an exam used to detect sick people in the population. These people, identified through the screening test, undergo further exams for diagnostic purposes. Mammography is the tool through which breast cancer is detected. Being positive to the screening test does not necessarily equal having a cancer, instead it means that there are signs deserving a more in-depth diagnostic examination.

In Italy, as part of the screening program, individual patients are actively invited to undergo both the screening test and the other exams, as well as receive any medical assistance they might need.

A study sponsored by LILT and by the Italian Ministry of Health – Progetto IMPATTO – showed that breast screening in our Country leads to:

- a decrease in breast carcinoma mortality;
- a decrease in the number of radical surgeries, given the small size of the tumorous lesion;
- a better prognosis, thanks to early diagnosis.

With the help of the Regions, the Italian national health service provides every woman aged from 50 to 69 (the most vulnerable age group) with a free mammography every two years, sending them an invitation letter showing the date, time, and place of the exam. Extending the screening to all women aged from 45 to 50 and to women older than 69 is currently being evaluated. The Italian League for the Fight against Cancer wishes that organized screening programs will be extended to every woman older than 40, every year, and integrated with an ultrasound for their whole lives.

LILT strongly suggests every woman to accept the invitation of national health service to undergo a screening mammography and offers its complete cooperation to reach out to every woman, also through its Provincial Associations. LILT suggests women younger than 50 or older than 70 to seek medical advice or to consult a breast specialist to lay out individual prevention and early diagnosis programs (self-exams, check-ups, diagnostic and instrumental examinations).

LILT shows its full commitment to the well-being of people by providing its members with Centers for prevention and early diagnosis, as well as specialist clinics so that patients start following a prevention path and undertake specialistic visits.

SPONTANEOUS SCREENING

Breast screening programs offered by the Italian national health service are a highly effective tool for an early diagnosis of breast cancer.

Due to their healthcare costs, however, they do not cover all age groups and are limited to the mammography. We need to keep in mind that 30% of breast cancers involve women under the age of 50 – so, not covered by breast screening. It is possible that a cancer may appear during the gap between a negative breast screening and the following, or that the mammography will not highlight a lump which would have been otherwise detected by a breast ultrasound.

Women must therefore be aware that the early diagnosis of a cancer depends also on them through self-exams and regular medical examinations during which the breast care specialist will suggest the most suitable prevention and diagnosis strategies (type and frequency of the exams) based on the patient's age and individual risk, in addition to performing a specialistic visit. This is one of the services LILT offers its members.

THERAPY

What we call breast cancer is in fact a diverse group of diseases that we can address with a wide range of complementary therapeutic options well-integrated with each other to varying degrees. These options include surgery, radiotherapy, and medical therapies (hormone therapy, chemotherapy, biological therapies, targeted molecular therapies, etc.).

Patients diagnosed with breast carcinoma will be followed by a team of specialists consisting of a radiologist, a breast surgeon, an anatomic pathologist, a cancer



specialist, a radiotherapist, a plastic surgeon, and a psychologist. Based on the size and the biological features of the cancer and on the health conditions of the patient, this team will evaluate the most effective strategy that will ensure the best recovery and quality of life.

SURGERY

Surgery is still the main weapon in the fight against cancer and is an irreplaceable tool to recover from breast cancer.

CONSERVATIVE SURGERY

Surgical removal limited to the part of the breast hosting the tumor and to the surrounding healthy tissue (gland removal; partial mastectomy), usually followed by radiotherapy.

MASTECTOMY

Complete removal of the mammary gland, the nipple, the skin, and the axillary lymph nodes (radical mastectomy), or with conservation of the external skin and, if possible, of the areola and the nipple (skin/nipple sparing mastectomy).

SENTINEL LYMPH NODE BIOPSY

Surgical removal of the first lymph node, or rather lymph nodes, into which a tumor drains its lymph and on which cells affected through the lymphatic tissues can therefore be found. If the histological examination of the sentinel lymph node does not show any presence of neoplastic cells, removal of other lymph nodes can be avoided, thus reducing the risk of further complications like arm swelling (lymphedema) and preserving the natural filtering functions of the lymph nodes.

AXILLARY DISSECTION

Complete removal of the axillary lymph nodes (level 1, 2, and 3), necessary in case axillary metastasis is confirmed or appears through pre-surgery clinical and radiological exams.

BREAST RECONSTRUCTION SURGERY

Plastic surgery aiming at restoring the shape and the volume of the breast excised through mastectomy. It can be performed during the same surgery (immediate reconstruction) or after treatments, with the insertion of replacements or with real tissues (muscular flaps). The choice of the procedure depends on the clinical situation, the necessary therapies after the surgery, and the psychophysical features of the patient.

RADIOTHERAPY

Radiotherapy is a treatment in which high-energy radiations are used to kill cancer cells. It only affects the part of the body exposed to radiations and can be used also to destroy any mutated cells still found in the mammary gland or in the axillae after the surgery.

In radiotherapy an external device is used to aim beams of radiation. This treatment usually consists of several sessions, up to five days a week for about five or six weeks. It is generally associated with conservative surgery to reduce the risk of local relapses and its side effects are limited.

In general, radiotherapy does not cause specific disorders nor hair loss. It can, however, produce side effects, especially locally, and these vary from person to person.

The most common side effects are: sore skin of the part affected (varying from slight to intense); red, dry, itchy skin; loss of color, reddening or bruising, general feeling of fatigue.

Here is some general good advice to face the most common side effects of radiations:

- Tight bras or clothing can create friction on the skin and cause pain. Wear comfortable cotton clothing.
- Skin care is important. Ask your doctor before using any deodorants, lotions, or creams on the concerned part.



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- Realize that the most intense treatments can put a strain on your body. During radiotherapy, it is essential that you take care of yourself resting and following a healthy diet. Moreover, it has been shown that regular physical exercise reduces the feeling of fatigue patients have during radiotherapy.

SYSTEMIC DRUG THERAPIES

Medical therapies aim at eliminating any tumorous cell (metastasis) still found after the surgery and radiotherapy, reducing the risk of relapses and increasing the chances of recovery.

Medical therapies include any combination of chemotherapy, hormone therapy, and biological therapies, depending on the stage of the disease and on the biological features of the tumor. In some cases, to facilitate or reduce the surgical excision of the tumor, it can be necessary to undertake drug therapies before the surgery (neoadjuvant drug therapies).

Hormone therapy

It uses drugs that stop the action or the production of estrogens. It can be used by itself or after chemotherapy whenever tumor examinations show the presence of estrogen or progesterone receptors. Hormone therapies are generally well-tolerated and do not share the same side effects of chemotherapy.

Chemotherapy

It uses drugs that are periodically administered to the patient after the surgery (adjuvant chemotherapy) or before the surgery (neoadjuvant chemotherapy) in locally advanced cases or to reduce the size of the tumor. The benefits of chemotherapy on the recovery can be significant also in the earlier stages of the disease.

Biological therapies

These use targeted drugs that interfere primarily on the biomolecular mechanisms that regulate the tumor growth.

For that reason, these drugs are usually less toxic than the most common chemotherapy

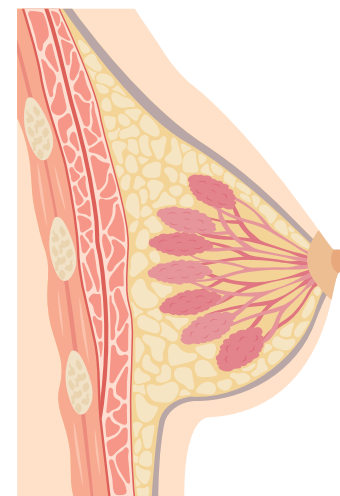
drugs, while preserving their maximum therapeutic benefit. An example of that would be drugs that selectively operate on the HER2 receptor. These are recommended when the tumor shows high levels of this protein.

GENETIC TESTS

Knowing in detail all the mutations of every single tumor allows us to predict the biological behavior of that specific neoplasm and to adequately stratify the risk. Genetic tests on the primary tumor - after this has been surgically removed - are already available; these analyze the genes affected by the metastasis process and help the cancer specialist identify the most suitable treatment. LILT promotes the use of these tests on a national scale and wishes it to be free for certain cases.

WHICH REHABILITATION - *After mammary carcinoma*

As accurate as they can be, conservative and radical/reconstructive surgeries can cause, to a varying degree, post-surgeries consequences to the part of the body and to the arm of the side in which the surgery was performed.



The patient should be informed about any possible complications or side effects of surgeries and radiotherapies, even if these are usually moderate.

Some consequences may arise early, that is during the very first days after the surgery, while other can present themselves after a few weeks or after some time, up to years.

Precautionary measures and practical advice after the surgery

The phase following breast surgery is generally the most delicate one; it is advised to:



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- Avoid blood transfers, injections, and measuring the blood pressure from the side of the arm that underwent surgery.
- Not to lift heavy objects or make consistent efforts (like ironing, holding children, lifting pets, doing the laundry...).
- Avoid any sudden changes in temperature.
- Avoid, especially during radiotherapy, direct exposure to sun or UV rays.
- Try to keep the arm that underwent surgery lifted when lying down (for instance, by placing a pillow underneath).
- Wear a sports bra without underwires.
- Avoid driving for the first three to four weeks after the surgery.
- Gradually move your arms, without making excessive efforts, starting from the first days after the surgery.

Here are some answers to the most frequently asked questions on this subject:



I am afraid to move my arm and when I do, it hurts. Should I not move it?

Keeping your arm steady after the surgery contributes to the pain, so it is better to move it normally. Also, you should use your arm for everyday activities naturally (combing, bathing, moving objects, even if these are in high locations).



I am afraid of fully raising my arm because I feel like there are some "cords" pulling under my armpit, sometimes up to the elbow.

These "cords" (Axillary Web Syndrome) that sometimes appear under the skin of the armpit after the surgery should not scare you nor limit the movement of your arm. Exercise slowly, repeating the exercises many times until it gradually stretches. Ideally, imagine that your arm extends in space, but do not put pressure on it. Focus more on the perception rather than on the mobility.

The exercises are effective if they produce a moderate stretching under the armpit.



I feel a painful swelling under my armpit. Will it fade away?

After removing the chest tube, it may be necessary to aspire by needle the serum that developed under the armpit (seroma). Serum production might last a few weeks before decreasing gradually.

That does not prevent you from moving your arm naturally for everyday activities. It is also important to move it naturally. If a small swelling under the armpit persists or appears during the radiotherapy or after some time. The movement will help restore lymph and blood circulation, reducing the pain.



I cannot feel my armpit or my arm anymore. Will they be back to normal? I feel tingling, prickling, or shock sensations under the armpit and/or inside the arm. What is going on? I feel a burden under the armpit, as if there was a pillow. What could that be?



During the surgery, some nerve branches that regulate skin sensitivity can be damaged. In most cases, symptoms resulting from a damaged nerve decrease gradually over time.

Total body movements and relaxing and breathing techniques can be useful for reducing the symptoms.



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When I raise my arm, the scar hurts. What can I do?

Already after a few days after the stitches have been removed, the scar can be treated daily using specific elasticizing creams sold in pharmacies. You want to soften the scar by massaging it with your fingertips, with a circular motion and avoiding any reddening. Self-treatment with elasticizing creams can last several months. If the scar adhesions are deep, you could ask a physiotherapist expert in scar tissue management; in most severe cases, it may be necessary to resort to specific under-skin anesthetic and anti-inflammatory injections performed by a specialist or to plastic surgery.

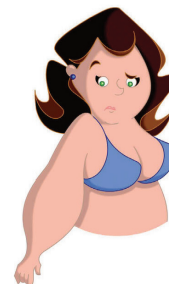


I do not feel pain, but I cannot raise my arm like the other and, even if I try, I cannot bring my elbow over my head.

During the surgery, a nerve that normally would join the scapula to the chest can be damaged. Sometimes the lesion can be irreversible, and the limb function recovered only partially. In any physiotherapy center you can undergo postural reeducation or perform specific exercises aimed at the shoulder blade. Since the motor deficit can last several months, it is advised to plan a rehabilitation period long enough.

Will I have a swollen arm?

Surgical removal of the axillary lymph nodes and radiotherapy both slow down the lymph circulation of the upper limb. Two/three people out of ten, either right after the surgery or after radiotherapy or even after years, suffer from visible swelling localized in the arm or in a part of it (lymphedema).



My arm is swollen! My doctor says it is a "normal" consequence of the surgery. Will it shrink on its own or do I have to treat it?

Initially, the swelling (lymphedema) can appear in a part of the limb (arm, forearm, hand). Sometimes it can disappear spontaneously, other times, as time goes by, the occasional swelling can become permanent. As soon as you notice recurring swelling, you should consult a physiotherapist specialized in lymphedemas, to treat it in its initial stage. The sooner the treatment begins the more effective and decisive this will end up being.



Suddenly, red spots started to appear on my arm skin, and it feels warm. What is going on?

The removal of the lymph nodes causes a lymphatic insufficiency which can lead to inflammatory/infective processes whose first symptoms are redness of the skin, localized heat, or a increase in body temperature (fever), pain and sudden swelling of the limb. Pain is usually the very first symptom. This inflammatory process can sometimes occur in the breast. It is treated with a drug therapy that uses antibiotics and anti-inflammatories that should immediately be prescribed by a doctor.

AFTER THERAPIES

You can recover from breast cancer, and today you have to!

One of the main concerns of people who have been treated for breast cancer is that the disease might recur.

Women who had breast cancer surgeries should seek medical advice to undergo periodical medical examinations and to fend off any side effects resulting from medical and surgical treatments. Finally, rehabilitation should not be merely physical, but first and foremost psychological, as well as social and occupational.



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You should not be afraid to seek psychological help to overcome such an overwhelming and traumatic event: defeating cancer means first and foremost lifting taboos!

During this stage as well, it is advised to:

- *Maintain an optimal body weight.*
- *Follow a healthy diet rich in fresh fruit, vegetables, and extra virgin olive oil.*
- *Exercise regularly and consistently.*
- *Limit alcohol consumption.*
- *Avoid smoking.*
- *Return as soon as possible to your normal professional and social lives.*

PREVENTING CERVICAL CANCER

Cervical cancer is the fourth most frequent cancer in women and the second most common in younger women (15-44 years old). Discovering the link between Human Papilloma Virus infection (HPV) and cervical cancer is one of the most important findings in cancer etiology. During the last few years, the use of synthetic vaccines to curb HPV sexually transmitted infections marked a major turning point in the history of cervical cancer primary prevention.

HPV vaccines are effective, reliable, and well-tolerated. Overall, they can prevent up to 90% of cervical cancers and up to 70-80% of the major preneoplastic lesions. HPV vaccines also help prevent vulvar, vaginal, and anal pre-cancer lesions: an opportunity not to be missed!

We can conclude that the HPV vaccine can be recommended (as an individual vaccine) also to adult, sexually active women who were treated for HPV-related disease, as it

has become a universal vaccine (extended to men and certain vulnerable groups). Thanks to the improvement in the current strategies of secondary prevention based on Pap smears and the introduction of a new HPV test after the age of 30, we can diagnose cervical preneoplastic lesions earlier and treat them properly to prevent them from developing into cancers. HPV vaccines and cervical screenings are the best allies for every woman... and every couple.

ADVICE FOR THE YOUNGEST

All available studies tell us that the chance of developing a tumor depends both on how much and how long a patient has been exposed to one or several risk factors.

According to the World Health Organization, about 80% of the most common tumors can be prevented following a healthy lifestyle when it comes to: smoking, food, alcohol, HPV, and exposure to ultraviolet rays.

BEAUTY IS WELL-BEING - Looking good to feel good

After a woman has experienced cancer and the disfigurement of her body – and the loss of her social life – it is of the utmost importance that she gets her beauty and her femininity back to regain confidence. CRE labs are Regenerative and Aesthetic Medicine centers that aid cancer patients.

They are active in some LILT offices adhering to the initiative, and their mission is to guide women in getting their lives back, also by treating aesthetic disorders caused by therapies. In LILT CRE labs, dryness, redness, and other skin blemishes affecting sensitive skins weakened by therapies are treated individually with a targeted approach starting from a diagnostic and aesthetic evaluation of the skin and continuing with a home therapy based on specific products that combine the best of dermal aesthetic with the softness of a beauty treatment. The key figures of CRE labs – cancer aesthetician, dermatologist, plastic surgeon – provide patients with the most innovative and less invasive Regenerative and Aesthetic medical treatment, helping women feel good about themselves even after the disease.



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Constant home care extends and reinforces the benefits of the treatments undergone in CRE labs, and further help women take their bodies and their self-worth back. A follow-up every six months will then allow to better evaluate the results and to adjust or add other treatments – not surgical. Regaining her femininity jeopardized by therapies can truly make a woman psychologically stronger in the fight against cancer. As we all know, well-being and look are closely related.

PSYCHOLOGICAL SUPPORT - *The patient and her family*

THE IMPACT OF THE CANCER ON THE PSYCHE

Suffering from cancer is an experience that does not affect only the body. Already from the diagnosis, this traumatic event breaks into a woman's life and can have serious psychological repercussions, as well as generate deeply negative emotional reactions. The disease alters personal, family, and professional life, to the point that the patient loses her identity.

WHY THE PSYCHOLOGICAL SUPPORT?

Psychological support can integrate medical treatments and offers a relief from psychological pain. Its main aim is to aid patients in identifying – or rediscover – their strength points and to offer them individual strategies to help them face any challenge the disease might throw their way in the best possible manner.

For this reason, in Italy, thanks to the national cancer Plan, every patient is advised to seek psychological advice from a psycho-oncologist already from the diagnosis.

WHAT DOES A PSYCHO-ONCOLOGIST DO?

A psycho-oncologist is a psychologist with specific expertise in the psychological support and in psychotherapy of people suffering from cancer. Specifically, he or she works with the medical team to promote the overall well-being of the patient, taking care of her psychological well-being.

The goals of the psychological support to cancer patients are:

- *To support her in the most problematic moments.*
- *To support her in rediscovering the meaning of life.*
- *To support her when taking decisions, increasing her participation to the treatment, and improving her compliance and the overall satisfaction.*
- *To support her family, which is an integral part of the disease experience.*
- *Promoting a healthy lifestyle.*

LILT

LILT stands for Lega Italiana per la Lotta contro i Tumori (Italian League for the Fight against Cancer). It is the only Italian membership-based public institution whose objective is specifically to fight cancer. It was founded in 1922. In 1927 the decree of the King of Italy Vittorio Emanuele III granted it legal recognition as a charitable organization. It is a non-profit organization that operates across the whole country monitored by the Ministry of Health. It cooperates with the State, the Regions, the Provinces, the Municipalities, and all other organizations working in cancer care.

It is a member of the European Cancer Leagues (ECL) and plays an institutional role within European cancer planning. It maintains relationships with the European Cancer Society and equivalent institutions in China, Albania, and Kosovo. In August 2019, LILT joined the international network of the European Men's Health Forum (EMHF).

MISSION

LILT main goal is to defeat cancer through primary, secondary, and tertiary prevention. Prevention has always been LILT primary institutional goal: "Prevention is life". Prevention is still the most effective weapon against cancer, as showed by the decreasing mortality for some neoplasms, the increasing life expectancy, and the improved quality of life of cancer patients.



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ACTIVITIES

LILT has always been a pillar of cancer prevention, both in Italy and abroad, as it offers numerous services and promotes, through signing agreements and memoranda of understanding, the exchange of information and experiences in order to achieve a fruitful and lasting cooperation. Undoubtedly, promotion and creation of a prevention culture is LILT main activity, which is why it is the largest public organization devoted to the fight against cancers in its entirety, working in conjunction with the Ministry of Education and the Ministry of Agricultural Policies.

Primary prevention

Healthy diet and health education by spreading educational material (awareness campaigns, meetings in schools, etc.); organization of events on a regional and provincial level; national events; fight against smoking (assistance in quitting smoking, educational campaigns, hotline SOS LILT 800 998877).

Secondary prevention

Specialistic visits and examinations for an early diagnosis aiming at detecting cancers in their initial stages, thus increasing considerably the chances to fully recover and to resort to less invasive cures.

Tertiary prevention

Physical, psychological, social, and occupational rehabilitation of cancer patients. LILT can fulfill this important mission thanks to the activities of the Provincial Associations and of the Prevention centers (clinics) with the aid of the Italian national health service.

Home care

Provincial Associations integrate hospital care with home care, ensuring a medical, psychological, nursing, and in many cases psychosocial and financial assistance for the patient. Specifically, the goal is to surround the cancer patient with a network of solidarity, security, and information to let her know she is not alone.

In this regard, LILT contributed substantially to the drafting and promoting of the Manifesto of Cancer Patient Rights, which protects the patient and his or her family

both socially and professionally. The Manifesto was brought to the attention of the President of the Italian Republic, Sergio Mattarella, and of Pope Francis.

Scientific research

Scientific research, specifically the one aimed at prevention, is at the core of LILT institutional activities.

LILT is committed to promoting and realizing studies related to innovation and research.

To achieve this goal, LILT cooperates with all institutions, entities, and organisms that operate nationally and internationally in the field of oncology, also by granting scholarships to young graduates.

In the last decade, more than 100 projects focused on the improvement of the quality of primary and secondary prevention and the assistance of cancer patients and their families have been sponsored, for a total of about 20 million euros.

All submitted projects have been carefully examined by LILT Scientific Committee, which comprises prominent international figures in the field of cancer research.

HOW TO SUPPORT LILT

With a donation

Donations can be made:

- to the National Headquarter
 - with a transfer to the postal account 28220002
IBAN: IT73 H076 0103 2000 0002 8220 002
 - with a transfer to the bank account Monte dei Paschi di Siena, Rome branch,
Via del Corso 232
IBAN: IT61 E 01030 03200 000006418011
- directly to your local LILT association visiting the website www.lilt.it



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FIVE PER THOUSAND

You can support LILT by devolving your five per thousand of your income tax (IRPEF). Simply sign under “Finanziamento della ricerca sanitaria” (Health research financing) or “Finanziamento della ricerca scientifica e della Università” (University and scientific research financing) for the National Headquarter (C.F. or tax identification number 80118410580) and under “Sostegno del volontariato e delle altre organizzazioni non lucrative di utilità sociale, delle associazioni di promozione sociale e delle associazioni e fondazioni riconosciute che operano nei settori di cui all’art. 10, c. 1, lett. a) del D.Lgs. n. 460 del 1997” (Financing of volunteering and other socially useful non-profit organizations, social promotion associations and recognized associations and foundations working in the sectors referred to in art. 10, p. 1, lett. a) of the legislative decree no. 460 of 1997) to support your local LILT association found on www.lilt.it clicking on “La LILT in Italia” (*LILT in Italy*) and selecting your Region. All information is available on the website 5x1000allalilt.it

MEMBERSHIP FEES

To become a member of LILT simply pay the annual fee (10 euros for ordinary members, 150 euros for supporting members, and 300 euros for beneficiary members).

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Dr. Francesco Torino – *Associate oncologist – System Medicine Department, University of Rome – Tor Vergata.*



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PROVINCIAL ASSOCIATIONS LILT

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| AGRIGENTO | TEL. | 0925.905056 |
| ALESSANDRIA | TEL. | 0131.206369 |
| | TEL. | 0131.41301 |
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