



la lotta al cancro non ha colore



# Screening

Let's play ahead against tumors

# Why this booklet?

The word 'cancer screening' indicates the tests for the early detection of cancer. These examinations are conducted on apparently healthy people, who don't have any cancer symptoms. Less than 50% of immigrant women living in Italy are undergoing the Pap-test to early find out cervix cancer. As well as 43% of them undertake the mammography, which is an important examination for early detection of breast cancer. These data are really far from the habits of women of the same age who were born in this country: about 72% of them go to the gynecologist for regular Pap-tests and 73% participate in mammography's screening programs.

**But what are these tests? What features do they have? How much do they cost?** This booklet provides more information on three screening programs currently active in Italy set to forestall breast, cervical and colorectal cancer. These examinations are very important for health: the scientific data show that the incidence rate (new cases) of these diseases is closely related to the possibility of undergoing preventive screenings.

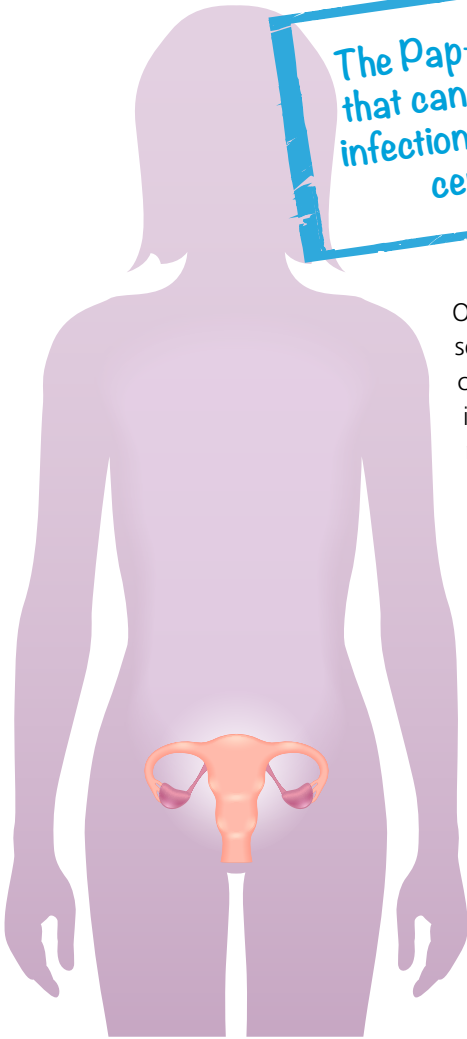


## Who we are

The **Insieme Contro il Cancro** Foundation is a non-profit organization born to fight against cancer all around, by implementing communication and education campaigns, research activities, prevention (including healthy lifestyle, screening), diagnosis and treatment, rehabilitation and social reintegration of people affected by cancer.

# Pap-test

The Pap-test is an easy examination that can diagnose bacterial or fungal infections, such as thrush, and uterine cervix ('cervical') cancers.



Only a few years ago cervical cancer was the second most spread cancer following breast cancer but now, thanks to a strong prevention, it has dropped to fourth place in female's most spread cancer statistics.

## ✓ How does a Pap-test take place?

A small sample of cleaved cells of the cervix is taken and then examined in the laboratory. The whole is carried out by a gynecologist, it lasts 5-10 minutes and is usually painless, although for some women it might be unpleasant, depending on the individual sensitivity:

- During the examination the gynecologist gently inserts into the **vagina** an instrument called speculum, which is used to dilate the walls and make the cervix visible
- Cells are taken with a spatula from the outer surface; then a second removal takes place with a brush inside the cervical canal.



✓ After the test you do not need any period of observation, unless otherwise specified by the doctor, and you can go home. The results are reported in a few days.

✓ Gynecologists recommend the first test **between the age of 20 and 25**, but when sexual activity begins before the age of 18, you should anticipate it.

✓ **Its execution should take place far from menstruation, sexual intercourse and douching. Sampling should be carried out in the period between 3-5 days after the end of menstruation and 3-5 days prior to the start of a new flow.**

✓ Pap-test is recommended **every three years**, but in case of different medical evaluations it can be performed more often.

## SCREENING

In Italy, regional activities organize screening programs, which regularly invite target women to undergo free Pap test. If you have not received a letter yet, please contact your local health unit (ASL).





## IL PAPILLOMA VIRUS



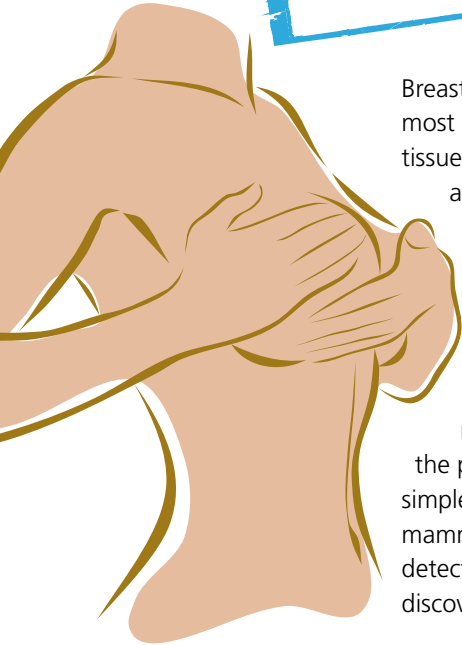
Recent scientific studies have shown how cervical cancers are caused by a particular virus, called Papilloma Virus (HPV), which is transmitted through sexual intercourses, even incomplete. The targeted cells of the virus are the epithelia of skin and the mucous membranes which constantly regenerate. Depending on the location and type of HPV infection, you may have warts on the skin and papillomas in the membranes. It should be noted, however, that many infections regress spontaneously without causing any damages. To completely avoid the infection with HPV, vaccines that eradicate the infection when the body encounters the virus have been introduced. All over Italy, girls from 12 years of age are freely vaccinated: for more information please contact your ASL or ask your doctor. The dose is administered intramuscularly, in the arm, and is composed of three doses (after the first, the other two at a distance of 2 and 6 months) and other calls are not needed. The vaccine has also proved to be essential to protect boys' health. One third of all cases of HPV infection are related to males that, unlike women, do not have useful tools and tests for the presence of the virus and its consequences (e.g. Pap test). More and more countries are in fact recommending the vaccine for boys too. The age range indicated for males goes from 9 to 26 years, while for females from 9 to 45 years. But it is important to protect yourself as soon as possible, therefore before sexual activity.

**Please note that the vaccination does not substitute a regular Pap test.**



# Mammography

A mammogram is an examination that diagnoses the presence of a possible breast cancer.



Breast cancer is one of the most feared diseases and the most common cancer for women. It is a formation of tissue composed of cells that grow uncontrollably and abnormally within the mammary gland. It might be:

- **non-invasive**, when cells grow only inside the organ (ducts, nipples, etc). In this case it is called carcinoma *in situ*;
- **invasive**, when cells spread beyond the point of origin. It is the most common type and represents 70-80% of all tumors cases. But knowing the problem allows you to act beforehand. In fact, with simple tests you dramatically reduce the risk of illness: mammogram is the most important tool for the early detection, the key weapon for preventing cancer that, if discovered early, is cured in more than 90% of cases!

## ✓ What are the signs to watch out for?

A palpable mass is usually the first alarm bell. If touching the breast a thickening or lump is felt, if you experience nipple discharge or something abnormal, you should always consult your doctor. You should also always make breast self-examination. If you perceive:

- a hard lump in the breast or armpit (usually painless and unilateral)
- swelling of the breast
- breast with orange-peel appearance or skin irritation
- a change in the size or shape of the breast
- a change in the form or color of the nipple

**immediately consult a specialist!**



## ✓ What is a mammogram?

A mammogram is an X-ray examination that does not prevent the development of disease, but in the case of breast cancer it helps to detect cancer when it is still in its very early stages. Thanks to this test, 25% of cancers diagnosed are smaller than 2 cm, this allows to take action with maximum efficiency. As many as 70-80% of cancer discovered during screening has in fact good chances of being successfully treated.

## ✓ How does a mammogram take place?

A mammogram is usually performed standing, topless,

leaning one breast at a time on a special shelf with adjustable height. The device determines a slight compression on the gland in order to provide better image quality. The test takes few minutes and can be accompanied by a clinical evaluation of the breast. It is carried out in 'double projection' (both top-to-bottom and



### SCREENING ✓

In Italy there are screening programs organized by local health authorities (ASL) that send every 24 months a warning letter to 'targeted' women, usually those from 50 to 69 years.



angled side view) and results are read separately by two radiologists, to ensure a higher accuracy. If positive, the study typically involves repeating the survey, along with an ultrasound and a clinical examination. Mammography shows thickening, microcalcifications and nodules even of few millimeters!

**The X-ray dose used is very low and hypothetical risks are lower than benefits.**



Is breast cancer an hereditary disease? ✓

It is estimated that only one case out of 10 is dependent on hereditary factors. But genetics is definitely important.

The onset of tumors is in fact due to functional alterations of one or more genes or, in most cases, in mutations of single bases that make up the structure of the gene itself.

Fortunately, it is not sufficient the processing of only one gene, but at least 5 or 6 mutations of different genes in a same cell are required to trigger the disease.



# Colorectal cancer prevention

The colon-rectum (or large intestine) is the final part of the digestive system.

Colon

It is a hollow organ, about 1,5 meters long, the wall of which consists of several concentric layers. The innermost part is called *mucosa* and is rich of glands formed by epithelial cells, which secrete mucus. Colorectal cancer is a malignancy that arises from these epithelial cells of the mucosal surface of the organ.

Unfortunately, **this cancer does not always give particular symptoms**, at least in the early stages and, in most cases, it results from processing polyps into malignancies: small growths, benign by itself, due to the uncontrolled reproduction of cells of

the intestinal mucosa. Two years ago two tests that can early indicate the disease were introduced. The first is the '**fecal occult blood test**' (FOBT), the second is the **proctosigmoidoscopy**.

Researches has shown that these two screening tests can have a significant impact on the evolution of the tumor, letting us to act on time against the cancer:

✓ searching for hidden blood in stool can detect **precancerous lesions or polyps** that can bleed imperceptibly. The test detects the presence of hemoglobin in the stool, when it is not yet visible macroscopically.

✓ over recent years, it has been developed a new technique, called **proctosigmoidoscopy (PSS)**, which is very important because it is able to easily identify cancer **at the end of the bowel** (rectum sigma). It is here that about 70% of colorectal cancer grows. During the PSS it is also possible to remove polyps directly. **It is recommended only once, between the age of 58 and 60**; if it is negative, it should not be repeated. Researches show that the negative results give protection for more than 10 years.



## SCREENING

It includes the research of occult blood in stool, every 24 months and free of charges for men between 50 and 70 years old and for women up to 74, at the invitation of the local health authority (ASL). In case of a positive result, a colonoscopy is recommended as soon as possible.





## But cancer can also be opposed while eating...

On cancer prevention, especially colorectal cancer, **fresh vegetables** have been proven very effective. Broccoli, for example, are rich in benefic principles. It is useful to prefer all types of cabbage, vegetables with dark green leaf (spinach, chard) and those yellow-orange (carrots, pumpkin) that contain carotenoids and vitamin C (antioxidant). Also bulbs are very helpful: onion, garlic, leek. Among fruit, orange varieties are preferred, but it is better to avoid those that are too much sugary. it is preferable, instead, to reduce red meats, salt and alcohol.

## ... and putting your cigarette out

There are sure bonds between smoke and colorectal cancer. According to an American study, which involved more than 184,000 respondents, people who smoked had a higher risk of about 27% to develop the disease than those who did not smoke. The danger was slightly less among those who were able to quit (23% of risk). Time makes the difference: the longer you smoke, the more your body is exposed to harmful substances. It is therefore essential to stop as soon as possible: in fact, from the day you stop smoking, the risk gradually decreases. If you quit smoking before the age of 40, the risk for the colon seems to vanish. If, instead, you do it later, you have to wait 30 years to see a reduced probability equal to those who have never smoked.



- The word 'cancer screening' indicates tests to early identify cancer. These examinations are conducted on apparently healthy people, who don't have any cancer symptoms. In Italy there are free screening programs for three types of cancer: cervical, breast and colorectal cancer
- The Pap-test is an easy examination that can diagnose bacterial or fungal infections, such as thrush, and uterine cervix ('cervical') cancers. A small amount of cleaved cells of the cervix is taken up and then examined in the laboratory. The whole is carried out by a gynecologist, it lasts 5-10 minutes. It is recommended by 20 and 25 years and should be repeated every three years.
- Mammography is the most important tool for the early detection of breast cancer. It is an X-ray examination that can detect the disease even at the earliest stages. Every two years a letter of invitation to the test is sent by the local health authority (ASL) to women from 50 to 69 years of age
- For colorectal cancer there are two tests that can early detect the disease, which unfortunately does not give clear symptoms in the early stages. The first is the 'fecal occult blood test', the second is the proctosigmoidoscopy. Screening includes the search of occult blood in stool every 24 months, free of charge at the invitation of the local health, for men between 50 and 70 years and for women up to 74. If the result is positive, a colonoscopy is recommended.