



# PROGRAMME MAMMOGRAPHIE

*I'M BETWEEN 50-70 YEARS OLD!  
I DO PARTICIPATE AT THE  
"PROGRAMME MAMMOGRAPHIE".*

*Breast cancer  
Screening increases the chances  
of being cured.*



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de la Santé

Direction de la santé



## “Programme Mammographie” (PM)

### Breast cancer: Screening increases the chances of being cured

You are regularly invited for breast screening: What will happen?  
It's up to you!

Indeed, there are advantages and disadvantages to screening,  
and this brochure will inform you of both.  
Please take the time to read it carefully.

If you still have questions, please don't hesitate to contact us at  
the “Programme Mammographie”.

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### What is breast cancer?

This disease has its origins in certain breast tissue cells that multiply at an abnormal rate until they form a mass - a malignant tumour - which can spread into the surrounding tissue. From this initial tumour, malignant cells can spread to the entire body. This is called metastasis, and mainly involves the bones and the liver. Some masses are not cancerous ; these are referred to as “benign tumours”.

#### WHAT DOES IT FEEL LIKE?

The symptoms can be: a palpable “lump” in the breast, a change in the shape or size of the breast, discharge coming from the nipples or inflammation of the breast.

But in most cases, at the earliest stage, there are no symptoms. However, the chances of survival and recovery are much higher when breast cancer is detected at an early stage and treated appropriately.

It is precisely thanks to regular breast examinations carried out as part of a screening programme that many women affected by this illness can be successfully treated.

## WHAT CAUSES THIS FORM OF CANCER? WHAT ARE THE FIGURES FOR LUXEMBOURG?

In most cases, it is not possible to find a specific cause.

However, there are certain factors which are favourable to breast cancer.

We are currently aware of the following: obesity, a sedentary lifestyle, alcohol consumption, hormone replacement therapy after menopause.

5 to 10% of all breast cancers are thought to be hereditary: in this case, several women (and men) in the same family will develop breast and/or ovary cancer.

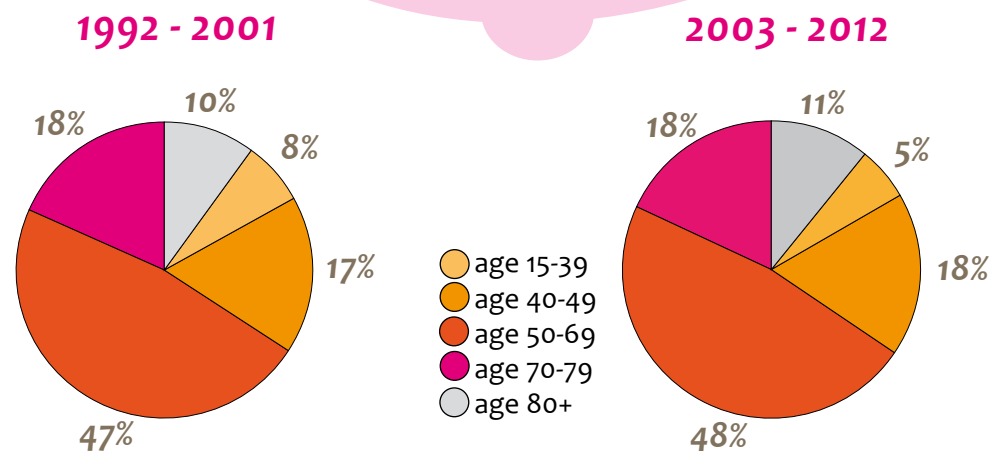
In Luxembourg, breast cancer is the most frequent cancer in women and the main cause of death in women aged 50 to 70.

Every year, around 400 women are diagnosed with breast cancer, and more than 80 will die from it. (*Health Department statistics on causes of death*).

For the past 20 years, the spread of breast cancer across different age groups has remained stable.

Most breast cancers affect women over the age of 50. 7% of breast cancers affect women between 15 and 39 years of age and 18% of breast cancers affect women between 40 and 49 years of age.

## Illustration: Evolution of breast cancer incidence in Luxembourg by age group and over two 10 year time period



References: „Registre Morphologique des tumeurs (RMT)“

## WHAT IS THE SURVIVAL RATE AFTER BREAST CANCER DIAGNOSIS?

Effective treatments exist for women with breast cancer.

Prognosis largely depends on the stage of the illness at the time of discovery:

- ◆ 5 years following breast cancer detected at an early stage, more than 85% of women are still alive ;
- ◆ 5 years following breast cancer detected at an advanced stage, 20 to 60% of women are still alive.

This is one of the reasons why health authorities organise screening programmes in order to detect cancer as early as possible.

## What is organised screening?

“**Screening**” involves looking for the signs of an illness - in this case breast cancer - at an early stage, before any symptoms are apparent. The aim is to treat the disease at an early stage in order to avoid aggressive treatments and to reduce the number of people dying from cancer.

“**Organised**” means that the screening respects high quality standards, which are applied to a large number of people. In the case of breast cancer screening, it means that every 2 years a mammogram is proposed to women aged between 50 and 70, along with an annual clinical examination.

## What does the “Programme Mammographie” involve?

### WHO IS IT FOR?

In Luxembourg, women aged between 50 and 70 who are members of the CNS - d’Gesondheetskeess and who live in Luxembourg are invited to have a mammogram every 2 years. Women living over the border who are also CNS - d’Gesondheetskeess members are allowed to take part in the “Programme Mammographie”, as long as their mammograms are carried out in the Grand Duchy of Luxembourg. You can request to have an invitation sent to you simply by calling the Coordination Centre on 247 85536 or 247 85570.

### WHEN IS IT CARRIED OUT?

A woman who has not yet participated in the PM will receive an invitation whose reference date is based on her birthday month. Following that, the participant will receive a new invitation 23 months after the date of the previous mammogram.

**The invitation remains valid for 2 years.**

A screening examination will not prevent breast cancer from developing. In order to be effective, it has to be repeated on a regular basis.

### IS IT OBLIGATORY?

No, all women are free to choose whether they take part in the programme or not.

### IS IT EXPENSIVE?

All mammograms carried out as part of the Programme are free.

## Taking part in a “Programme Mammographie” will guarantee that:

- ◆ Your mammogram will be examined by the radiologist at the certified radiology department, then re-examined by a second radiologist at the Ministry of Health (this process is called “double reading”).
- ◆ If the 2 radiologists have differing opinions, a third reading will be carried out at a discussion between one of the first readers and one of the second readers. This will be done at the earliest opportunity - this method makes it possible to discover any anomalies that one of the radiologists may not have seen, and it is also a way of preventing unnecessary further examinations.
- ◆ The equipment used at certified centres is regularly checked by a medical physicist, who makes sure that it is operating in accordance with European recommendations.
- ◆ Image quality is checked on an ongoing basis by radiologists with special training.

## What does a mammogram consist of?

A mammogram is an exam of the breast using X-rays and is currently the best way of detecting breast cancer. A mammogram makes it possible to detect small lesions that cannot be felt during palpation.

Mammographic imaging provides detailed images of the breast from different angles. First of all, the breast is placed between two plates so as to spread it out and hold it in place. This proce-

dure can cause momentary discomfort. However, it is important because it makes it possible to obtain images which are easier to read while minimising the dose of X-rays used.

If you have not yet reached the menopause, it is best to make an appointment at the start of your monthly cycle, which is to say after your period, because your breasts will be less sensitive during the examination.

## How will the session proceed?

- ◆ The mammogram will last for a few minutes. You should allow 20 to 30 minutes in total.
- ◆ During this time, you will be taken care of by a specially-trained radiographer. This person will also carry out the mammogram.
- ◆ You will need to undress to the waist before the mammogram.
- ◆ Each of your breasts will be held between two plates for a few seconds. This may cause some discomfort, but only momentarily.
- ◆ People with reduced mobility can undergo their mammograms while seated.

## What is the difference between diagnostic mammograms and screening mammograms?

### ◆ Diagnostic mammograms:

Diagnostic mammograms are used in women who present symptoms: where an anomaly has been detected during palpation or where a patient has made a complaint, the treating physician must write a prescription explaining the situation to the radiologist. This mammogram can be carried out on patients of any age, but before the age of 35 mammograms should only be used if they are strictly necessary. In this case, it is the radiologist who decides what to do.

◆ **Screening mammograms** are intended for women who do not present clinical signs of breast cancer. The Ministry of Health applies recommendations made by European experts in advising that women over the age of 50 should have a mammogram done, every 2 years, as part of an organised programme. The Luxembourg national programme conforms to quality criteria as concerns the mammogram equipment, medical staff and doctors. Under the age of 50 and over the age of 70, screening can be carried out with a medical prescription: the doctor will decide on its usefulness on a case-by-case basis.

## What are the steps to follow?

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- ◆ As soon as you receive your invitation you should make an appointment at one of the radiology centres that have been certified by the Ministry of Health.
- ◆ The certified radiology centres are located in all 5 hospitals.

## List of approved radiology centers

NAME	PLACE	TELEPHONE
CHL - Maternité	Luxembourg	4411-6424
HRS-Site Kirchberg	Luxembourg	2468-5696
HRS-Site ZithaKlinik	Luxembourg	2888-4599
CHdN	Ettelbruck	8166-8166
CHEM	Esch-sur-Alzette Niederkorn	5711-79300

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- ◆ Choosing the date: if you still have a menstrual cycle, you should make your appointment for one of the days following the start of your period, when your breasts will be at their least sensitive.
- ◆ **Your invitation will be valid for 2 years.**
- ◆ Make sure you specify when you are making your appointment that your mammogram is being carried out as part of the screening programme.

### On the day of the examination:

- ◆ Remember to bring your invitation and voucher.
- ◆ Wear clothes that are easy to remove.
- ◆ Do not wear any deodorant, powder, body lotion or perfume on your breasts or underarms, since this could compromise image quality.
- ◆ Do not wear any jewellery on your upper body (necklaces, chains, etc).
- ◆ If you have already had a mammogram done in another country and are in possession of recent images or CDs, it is important to bring them along to your appointment. The radiologist will be able to compare the two mammograms and thus identify faster any changes. All images made in Luxembourg can be transferred between hospitals, so there is no need for them to be printed out.

## How and when will you receive the result of your examination?

A few days after the test, a letter will be sent both to your **doctor** and to **you**.

The short delay is due to the 2 radiologists needing a few days to examine your mammogram.

### Normal result:

- ◆ This means that the mammogram does not show any anomalies and that no further examination is required.
- ◆ However, it is recommended that you have an annual clinical examination during a regular consultation (the E20 letter, which needs to be countersigned, is not required in this case).
- ◆ You will continue to be invited for a mammogram every 2 years until you reach 70 years of age.

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### Abnormal result:

- ◆ This means that the radiologists have detected an anomaly. This is the case in around 5% of the mammograms carried out.
- ◆ In this case, further examinations will be necessary in order to properly identify the anomaly. Usually, further mammogram images will be needed, as well as an ultrasound, an MRI scan and in some cases a biopsy. In the majority of cases, the anomaly will turn out to be benign, i.e. non-cancerous, but it is always necessary to make sure that this is the case.
- ◆ Your doctor will receive by recorded delivery the overall report on the analyses made and a recommendation concerning the types of further examination to be carried out. In this case, your doctor will explain the result to you, will examine you, and will prescribe the tests s/he finds the

most appropriate. This consultation will be free if you countersign the E20 letter that has been sent to your doctor. If ultimately there is no evidence of cancer, you will continue to be invited for screening every 2 years. If cancer is present, you will start to receive medical care immediately.

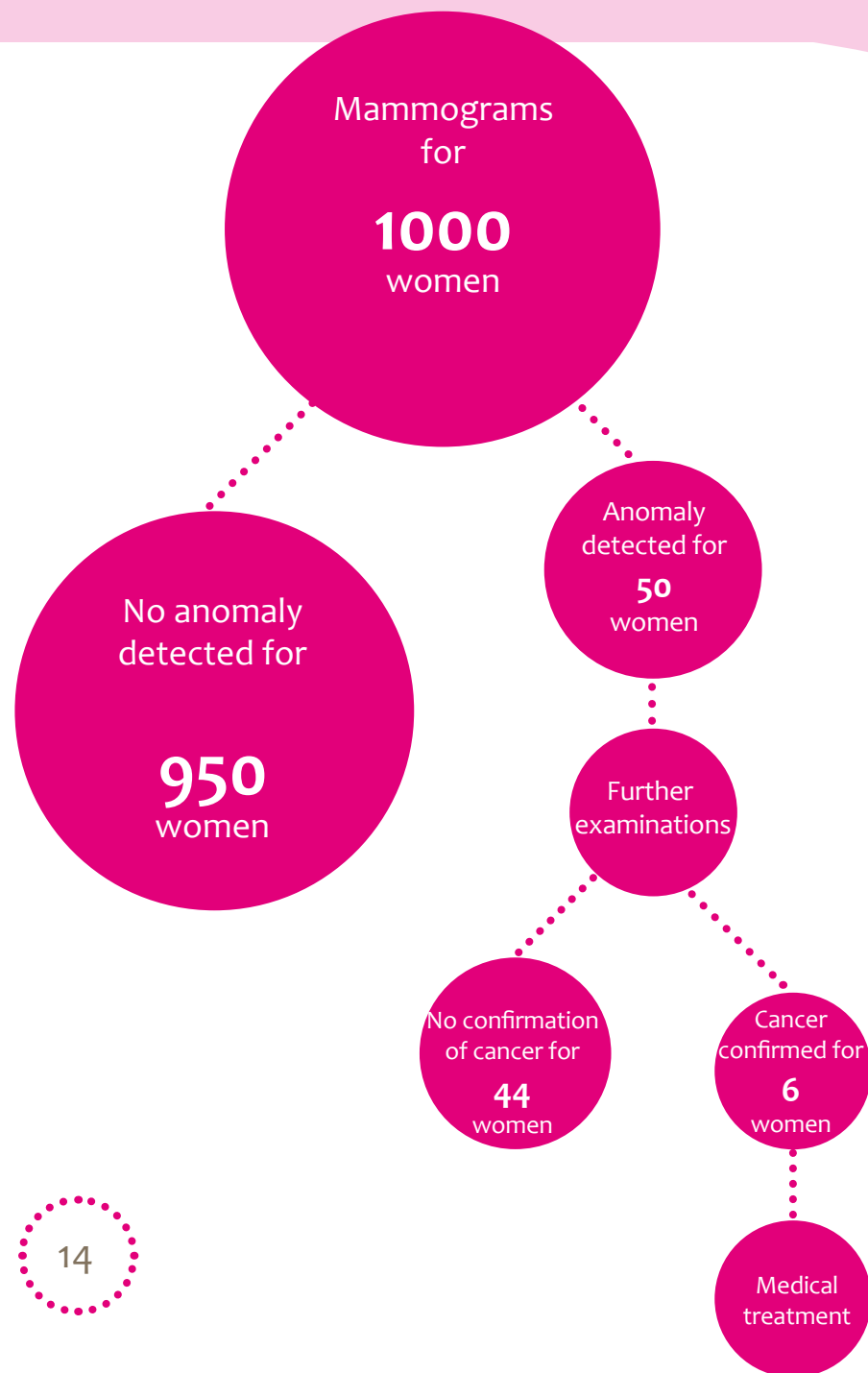
- ✓ Where a complimentary check-up is needed, your doctor and the radiologists can send you a copy of your results upon request. They will also inform the coordination centre, by sending a copy of your results with their conclusions to the supervising physician.
- ✓ Indeed, in order to assess the quality of the screening, the supervising physician of the “Programme Mammographie” must be informed of the results of further examinations. This is done in strict observance of professional secrecy.

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### In figures:

- ◆ In Luxembourg over the course of a single year, almost 26 000 women aged 50 to 70 are invited for screening, and of these, 18 000 will participate.
- ◆ For every 1000 women who are screened:
  - 950 have a normal mammogram.
  - 50 women have an abnormal mammogram. For 44 of those women, following further examinations, there will be no evidence of breast cancer. However, 6 women will be confirmed as having breast cancer.
- ◆ Ultimately, out of 1000 women who are screened, 994 have normal results, 6 cancers are detected, most of them at an early stage.





## What to do if ...

### ... you have just noticed a change in your breasts?

Do not attend the screening programme ; talk to your doctor instead.

### ... you have already had breast cancer?

You can participate in the “Programme Mammographie“, but you should ask your doctor which types of examination are the most suitable for you.

### ... you have a breast implant?

You can participate in the “Programme Mammographie“, but ask your doctor for advice.

### ... you are aged below 50 or over 70 and you are worried about breast cancer?

We would advise you to speak to your doctor. In certain circumstances, screening is recommended below the age of 50 and over the age of 70.

## What else should you do other than screening?

Certain cancers cannot be seen on a mammogram or can progress fast. It is therefore important that you pay attention to the appearance of your breasts and that you consult a doctor as soon as you notice any change.



## Changes which mean you should consult a doctor:

The following **signs** should be pointed out to your doctor, but they do not necessarily mean that you have **cancer**:

- ◆ any nodule, lump or thickness in the breast or near the armpit,
- ◆ any anomaly in the shape of the breast,
- ◆ retraction of the skin or the nipple,
- ◆ redness, oedema or an orange peel appearance of the skin,
- ◆ discharge from the nipple.

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## The advantages of the screening programme

### ◆ Early detection:

A mammogram makes it possible to detect small tumours which usually have not yet formed metastases. Early detection and treatment increase the chances of survival and recovery.

### ◆ An improved quality of life thanks to treatments that are less aggressive and more effective:

Early detection of a tumour usually makes it possible to proceed with a less aggressive form of treatment. For example, during an operation, it is often possible to conserve the breast and, sometimes, to avoid chemotherapy. This means there is a reduction in side effects and an improvement in the quality of life both during and after the disease.

### ◆ Contribution to the reduction in the number of deaths from breast cancer:

Early detection and the progress that has been made in treatment have contributed to a reduction in the number of deaths linked to breast cancer in women in any given age group.

Every year in Luxembourg, around 72 women over the age of 50 die from breast cancer. A woman over the age of 50 who participates every two years in a screening programme will see her risk of dying from breast cancer reduced.

### ◆ A reassuring step thanks to the quality control within a programme:

Women benefit from an examination whose quality meets strict criteria that are regularly controlled and certified.

## Disadvantages and risks

### ◆ Diagnosing and treating inert forms of cancer:

We know that some forms of cancer develop so slowly that they do not affect a person's health: in this case, death will occur due to another cause and screening for cancer does not have much use.

As scientific knowledge currently stands, **it is not possible for any given person to formally distinguish those cancers that will spread - which are in the majority - from those which will progress very slowly** and will not have any effect on the health of the woman concerned (this is the case in around 10% of cancers detected). These cancers would not have been discovered if no mammogram had been carried out, and this is known as “**over-diagnosis**”.

However, we always treat all cancers which are detected, although some would not need to be treated or would not need all the treatments administered. This is known as “**overtreatment**”.

**A great deal of research has tried to identify those cancers that would be likely to evolve slowly in order to offer more appropriate treatment for each individual situation.**

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◆ **False positive result or false alarm:**

When a mammogram brings anomalies to light, further investigations will be necessary in order to determine the nature of the anomalies. In most cases, it will be found that any changes in the breast are benign and that no cancer is present. This is what is known as a « false positive» result, and it can be very upsetting and difficult to deal with.

◆ **Cancer that develops before the next mammogram is due: interval cancer**

Some forms of cancer are not visible on a mammogram, or are not detected by radiologists ; others can progress very fast after the mammogram has been carried out. This is known as «interval cancer».

Such situations are very rare.

For every 1000 women who take part in organised screening, fewer than 2 of them will develop cancer between two mammograms. Repeating the mammogram examination more often, such as every year, is not, however, recommended, as this would expose women to X-rays too often. As well as this, numerous statistical studies show that the rhythm of carrying out mammograms every 2 years was determined in order to minimise both the number of interval cancers and reduce the X-rays to which women are exposed.

-> **This is why we recommend that all women, as well as treating physicians, pay attention to clinical changes that might occur, even after a normal mammogram.**

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◆ **Irradiation linked to mammograms and the risk of cancer:**

The X-ray doses necessary for a mammogram are very low, thanks to the use of high-quality radiological equipment and to legally prescribed controls. After the menopause, the risk of developing breast cancer as a result of regular exposure to X-rays is close to nil. The risk is higher in younger women.

## **The essential points in brief**

It is up to each woman to decide whether or not she wishes to participate in screening once she has investigated the advantages and disadvantages.

Below you will find a summary of the essential points:

- ◆ Cancer in the early stages does not tend to cause symptoms.
- ◆ Early detection followed by the appropriate treatment makes it possible to successfully cure breast cancer and to increase the chances of survival.
- ◆ Over the age of 50, the CNS - d'Gesondheetskeess, working together with the "Programme Mammographie", will send you a personal invitation for a mammogram every two years.
- ◆ During a screening examination, 2 images of each breast will be produced by specially trained professionals.
- ◆ Each mammogram will be independently assessed by at least two radiologists.
- ◆ Both you and your doctor will receive the results of the examination in writing a few days later. Suspect images will lead to further investigations.

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**This brochure is intended to help you decide whether or not you wish to participate in the screening programme. If you have any other questions, the staff at the “Programme Mammographie” Coordination Centre or your doctor will provide you with further information.**

## ***Addresses and further information***

This information brochure exists in various languages and can be downloaded for free from [www.sante.lu](http://www.sante.lu)



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