

A person wearing a plaid shirt and dark shorts is walking away from the camera on a paved road that leads towards a range of rugged mountains. The scene is set at sunset or sunrise, with a warm, golden light illuminating the sky and the mountains. A faint rainbow is visible in the sky above the person. The overall mood is hopeful and journey-oriented.

Illuminating the breast health journey

From early detection to accurate diagnosis

BARCO

A close-up, low-angle shot of a forest floor. The foreground is filled with a dense carpet of bright green moss. In the mid-ground, several ferns with delicate, feathery fronds are visible, some in sharp focus and others blurred. The background is a soft-focus wall of various green leaves and foliage, creating a sense of depth and a vibrant, natural atmosphere. The lighting is soft and even, highlighting the textures of the moss and the vibrant green of the plants.

Hi there,

Try to take some time next week to go for a walk in a wood or park in your neighborhood. Look at the trees and plants, and let it sink in how different they all are. Almost all of them use the same things to live (air, sunlight, soil), and yet no two plants are the same.

The same goes for our bodies and how they evolve: **there is so much diversity**. That's a good thing, because the world would otherwise be a dull place. But a side-effect is that the discovery of something suspicious in your body could mean a lot of things. Doctors need some time and research before they can put their finger on what is exactly going on.

So for you, that's often **the start of an emotional rollercoaster** of tests and visits to medical specialists with complex titles. A journey that starts with 'it might be breast cancer' could turn out to be something completely else – or vice versa.

If you or someone you know is in such a position now, we hope this brochure can shed some light on the road ahead.

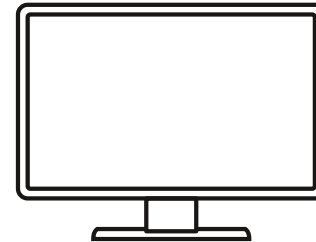
**The importance
of early
diagnosis**



**Something was
found in
my breast ...
What happens
next?**



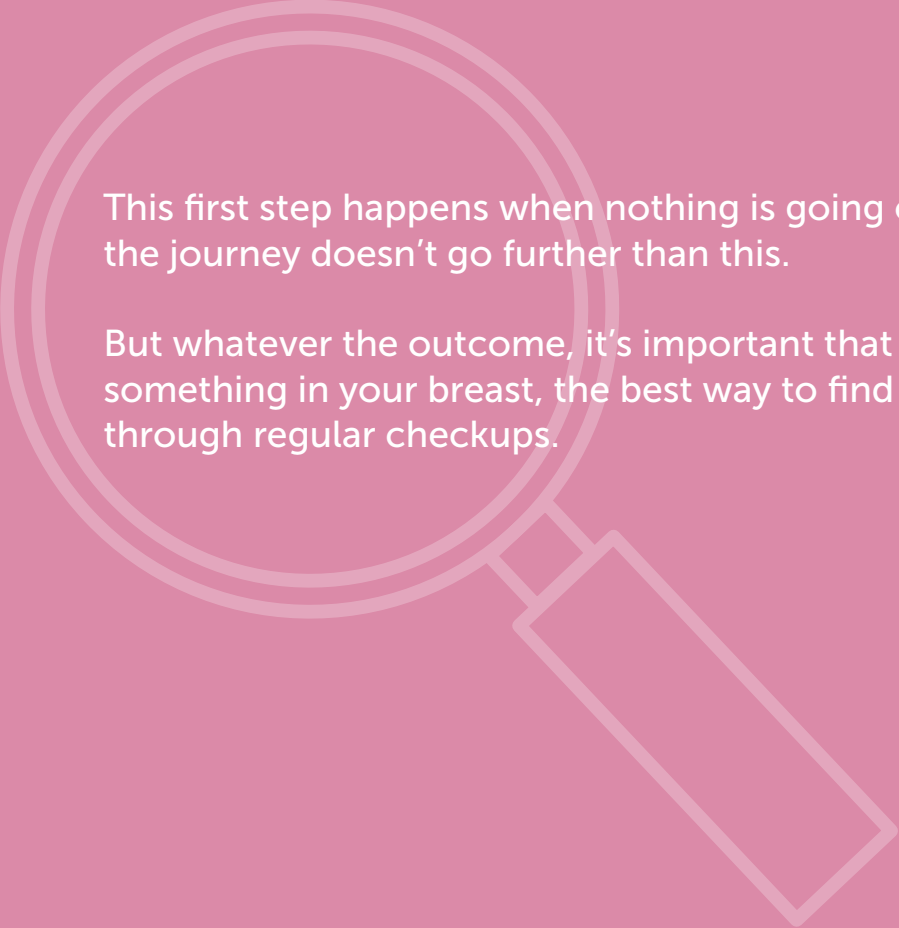
**Who analyzes my
breast imaging
test and biopsy?**



**Ready for
diagnosis**



The importance of early diagnosis



This first step happens when nothing is going on – and for most women, the journey doesn't go further than this.

But whatever the outcome, it's important that it's done. If there is something in your breast, the best way to find it as early as possible is through regular checkups.



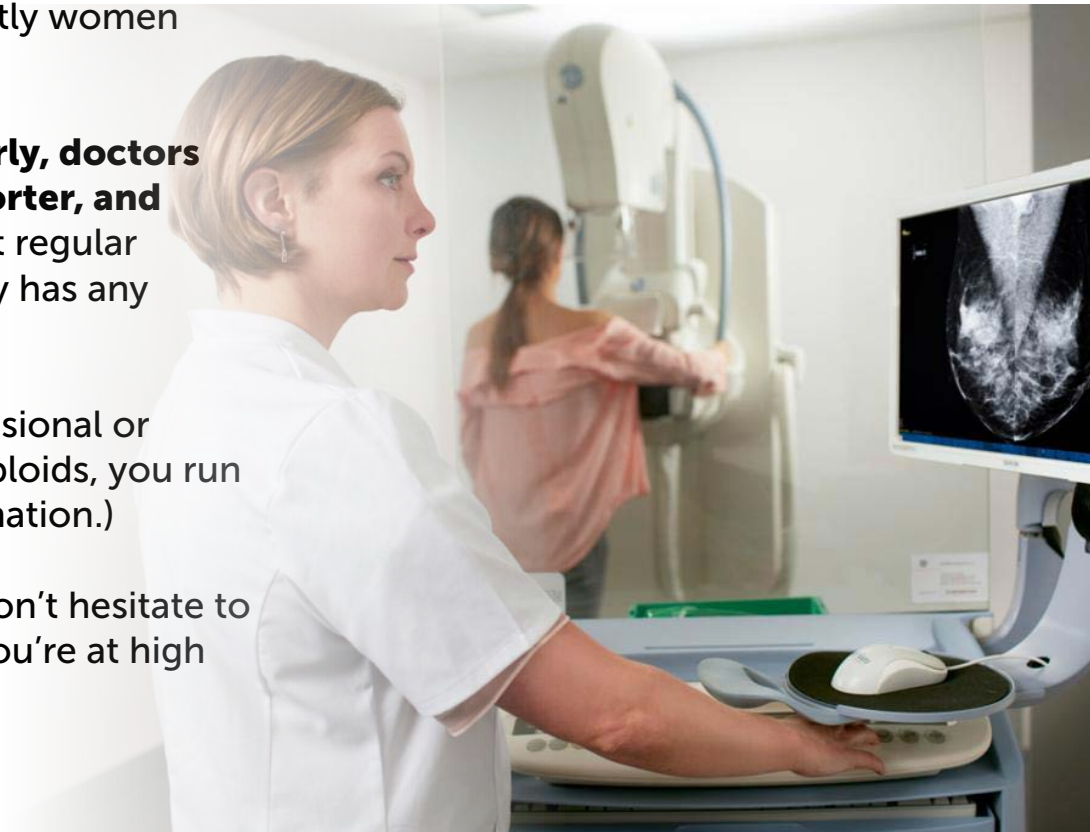
Get your regular checkup

Whichever your age or gender, it's never a bad thing to ask your doctor information about breast screenings. For most younger women, a visit to the gynecologist will do. But **from a certain age, mammograms are recommended.** Many countries have recommendations, defined by professional organizations, about when and how frequently women should get tested.


Why go for regular tests? **If breast cancer is detected early, doctors will have more options to fight it, treatment can be shorter, and the impact kept at a minimum.** So ask your doctor about regular screenings, or research the internet whether your country has any recommendations.

(Note: Make sure you're visiting official websites of professional or acknowledged organizations. With informal forums or tabloids, you run the risk of getting incomplete, irrelevant, or wrong information.)

While men are not typically screened for breast cancer, don't hesitate to consult your physician if you have symptoms or in case you're at high risk of getting breast cancer.



A word about self-tests



Breast cancer is sometimes found after symptoms appear, but many women with breast cancer have no symptoms. This is why regular breast cancer screening is so important.¹

Self-tests are often recommended as an additional way to discover breast cancer. Note that **breast cancer is most of the time not detected through noticeable symptoms, but through screening tests.** And if there are symptoms, it's very probable that you'll already notice them during regular activities such as taking a shower.

With this we don't mean that you should start disregarding your breasts completely. It's good to know your body and how your breasts look and feel. However, **self-testing can only be seen as an additional check on top of recommended screening.** It is by no means an alternative that rules out screening tests.

¹ <https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection.html>

Ask questions!

You might feel a bit nervous about getting a breast test. That's perfectly normal. Know that this is a preventive measure. Most breasts are healthy, and even if something is found after a test, it isn't necessarily breast cancer. But this is your body, so you should **never hesitate to ask the questions you may have!**

And don't forget: **most breast lumps are not cancerous.**



Something was found in my breast ... What happens next?

The first thing doctors do when they want to investigate something in your breast, is simply **mapping it out completely**. You can compare it a bit to cartographers. If they map out a geographical area, they'll be able to understand it better and more quickly, including if, when and how this area evolves later on.

A map of your breast goes a long way to help doctors understand what's going on, where it's going on, and how your breast is composed. **It's the basis for an accurate diagnosis and efficient follow-up in the future.**



A 'map' of your breast comes in the shape of an image. Just like there are different geographical maps (for example showing roads, population density, or height differences), there are different types of medical images that give information about specific aspects of your breast.

The three most common types of medical images are **mammogram, ultrasound, and MRI**. In most cases, these suffice to reach an accurate diagnosis of what's going on. In some cases, a biopsy or additional images are used to be absolutely certain.



Mammogram

A mammogram is an x-ray image of the breast. There are 2 types of mammograms:

Screening mammograms

Are used during normal checkups

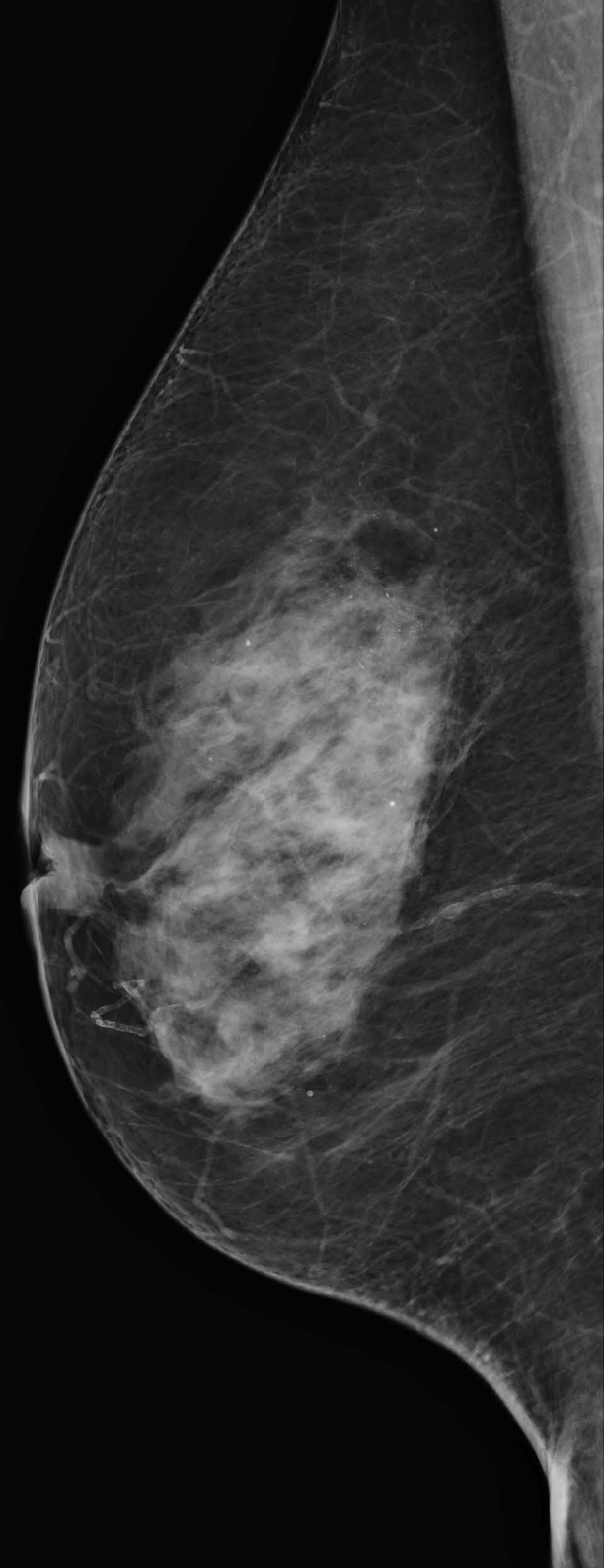
Diagnostic mammograms

Are used in case something suspicious was found

Though mammograms are a key part of breast cancer diagnosis, they **don't only reveal breast cancer but can show more benign presences too**. An example is fibroadenomas, which are lumps of normal breast cells.

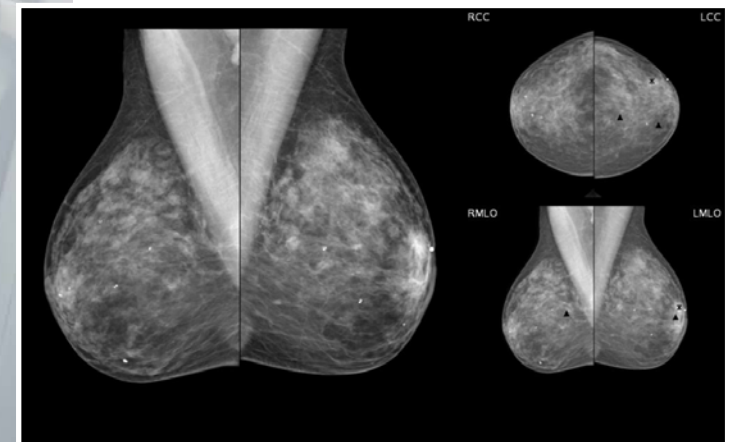
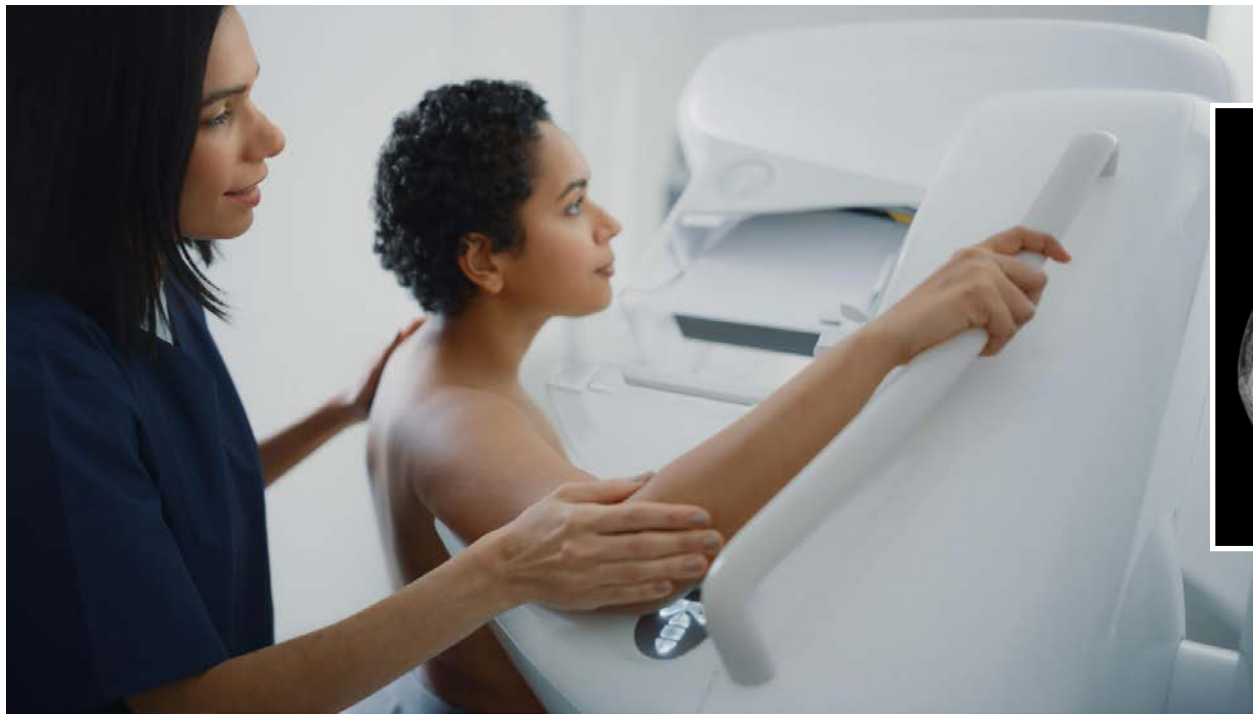
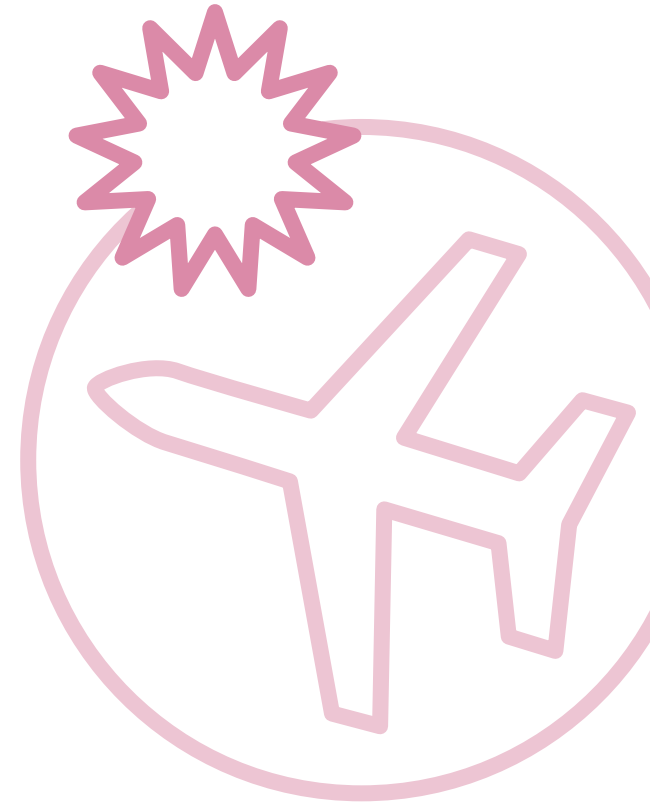
A mammogram is usually taken of both breasts, because it's easier to analyze if you compare them with each other.

There is also a type of mammogram that is being used more and more that takes a 3D image of your breast. This is called **breast tomosynthesis**.



Mammograms and tomosynthesis make use of radiation, but the doses are very low. They are typically compared to the small extra radiation you receive from the sun during an airplane flight. Don't hesitate to ask the person who guides you through the process for more information in case you worry about this.

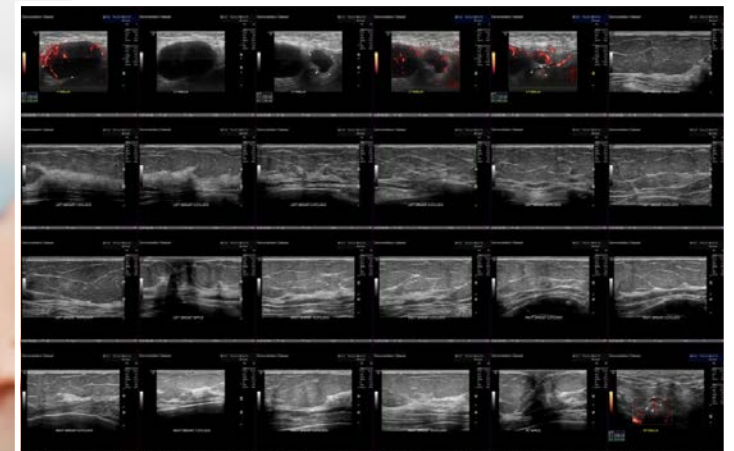
A mammogram **shows more detail** than an ultrasound, but is more difficult to analyze when your breast is dense. The reason is that solid mass shows white in the image, so lumps that are surrounded by a lot of tissue are more difficult to discern. That's why ultrasound can help in clarifying these dense areas.



Ultrasound

Ultrasound is probably the most common type of medical image test used worldwide, which you may have had already during a regular visit to a gynecologist or in case you've been pregnant. It uses a special gel and **sound waves, which make it possible to locate different structures inside your body.** You don't hear the sound because it's very high-pitched. It reminds a bit of the way in which a bat 'maps' its surroundings through sound.

Ultrasound is already more than 50 years old and is an established way to visualize the size, shape and structure of internal organs. It's also useful to see whether something is a fluid-filled cyst or a solid mass that needs further research. And when a biopsy is needed, ultrasound is often used to guide the needle to the correct spot.



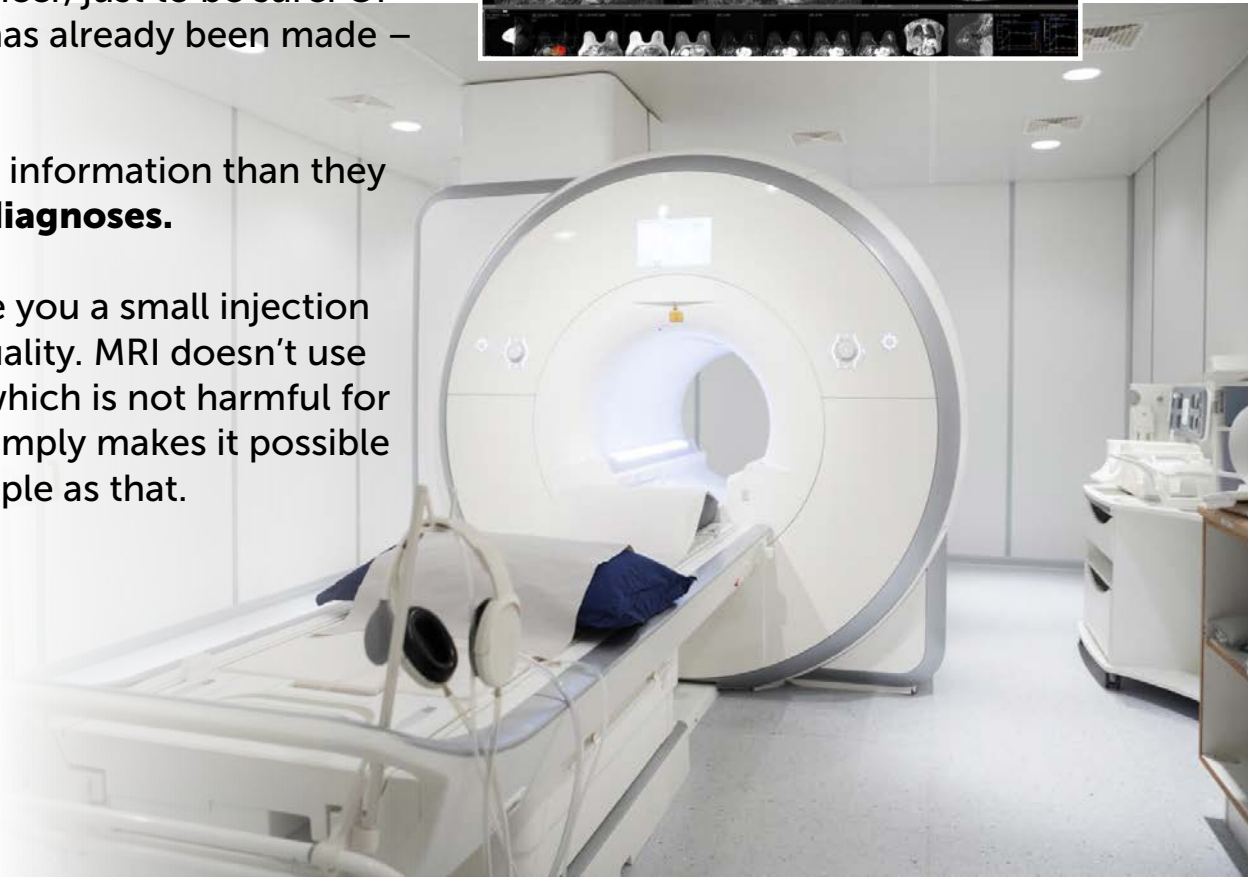
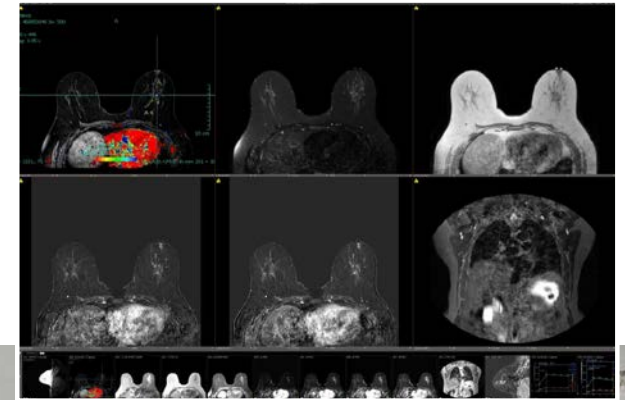
MRI (magnetic resonance imaging)

Many people will agree that an MRI is the most daunting of the three tests discussed here – the large scanner can make a pretty scary impression. MRI is **not always necessary, even if you have already been diagnosed with breast cancer.**

An MRI can give a better view of soft tissue than other screening tests, so it's often used as additional resource. Doctors can also recommend it when you have a higher risk factor for breast cancer, just to be sure. Or it can be taken when a breast cancer diagnosis has already been made – for example, to measure the cancer's exact size.

Remember this: an MRI gives your doctors more information than they already had and can **help ruling out incorrect diagnoses.**

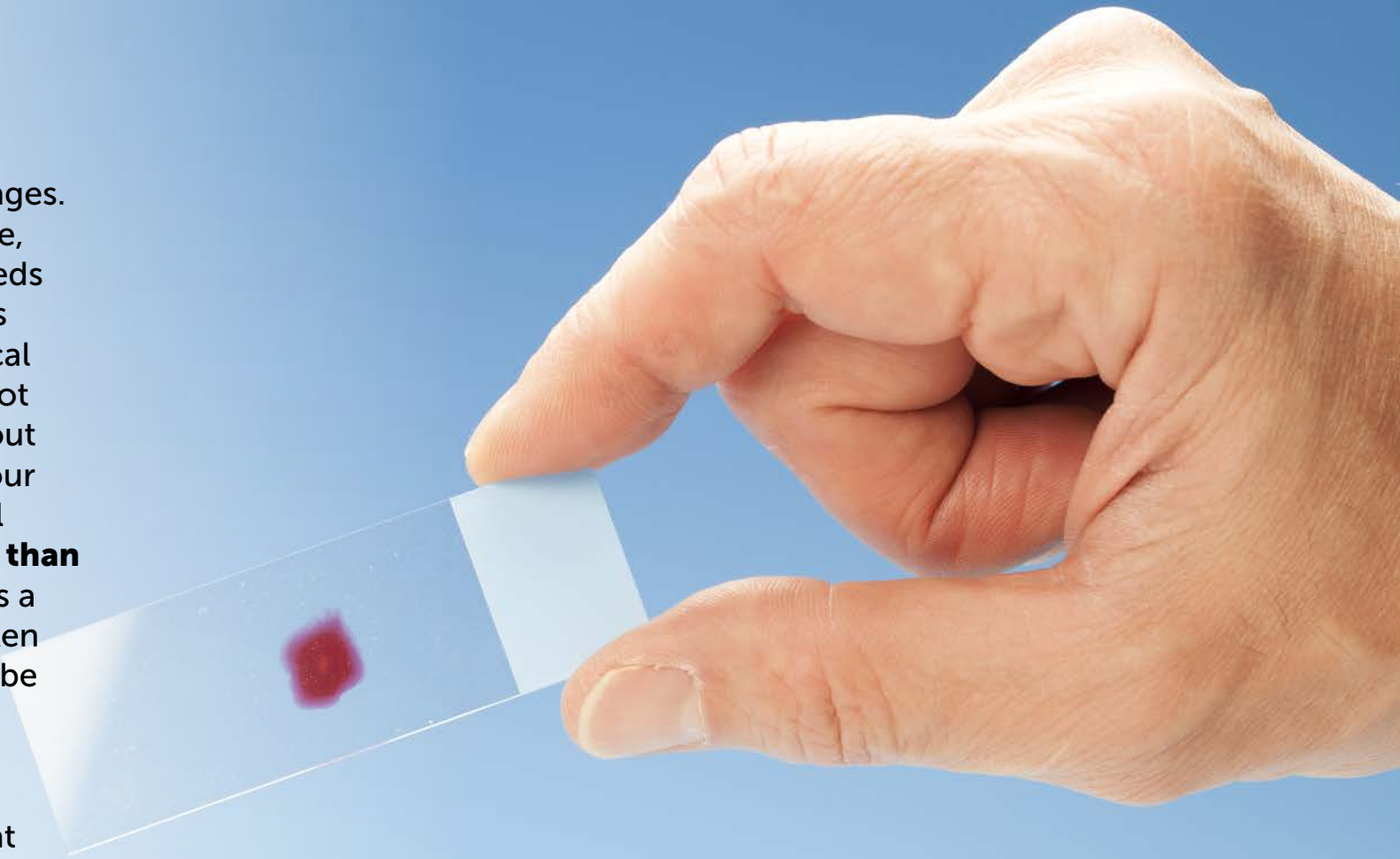
Before the scan, the person guiding you will give you a small injection of contrast medium. This improves the image quality. MRI doesn't use radiation, but radiowaves and strong magnets, which is not harmful for your body. The machine is so big because that simply makes it possible to take images from different angles – it's as simple as that.



Biopsy

A biopsy is different from images. It's a very small piece of tissue, taken from the place that needs to be investigated. A biopsy is the step from visual to physical information, so it can give a lot of additional information about what could be going on in your breast. In contrast to medical images, a biopsy offers **more than visual information alone**: it's a very small piece of tissue, taken from the place that needs to be **investigated**.

You can compare it to the difference between looking at an image of a t-shirt and actually having it in your hands: the picture will give you lots of information about the t-shirt. But there's even more to learn when you're holding it in your hands, for example about its texture.



Who analyzes my breast imaging test and biopsy?

Breast images and biopsies are necessary to make a 'map' of your breast, so irregularities can be identified and followed up. But who are the people who do this? Through whose hands do your breast tests and images go after they've been taken?



Breast images are examined by radiologists

From taking the image ...

When you go to the hospital to have a breast image taken, you will be guided by a technologist: a person who specializes in the devices that take medical images, such as the mammography machine or the MRI scanner. They make sure that the images are correct and clear.

Their experience and the quality of the material they use are key to reach a correct diagnosis. However, they are usually not the people who actually interpret the images and make decisions based on them.





... to analyzing the image

The people who analyze ultrasounds, mammograms or MRI scans are radiologists. **Radiologists are doctors who work full-time on the analysis of medical images, forming diagnoses based on these.** If you've ever broken your arm or leg, you'll probably have had an image taken which was checked by a radiologist.

Mammography is the subspecialty of radiology that focuses on breast images. So your breast image will be analyzed by a radiologist who has received specialized training in breast structure and images.

The radiologist receives the images along with your patient file, interprets them and writes down their findings. It's possible that the radiologist suggests more tests, in case the images don't indicate one exclusive explanation.

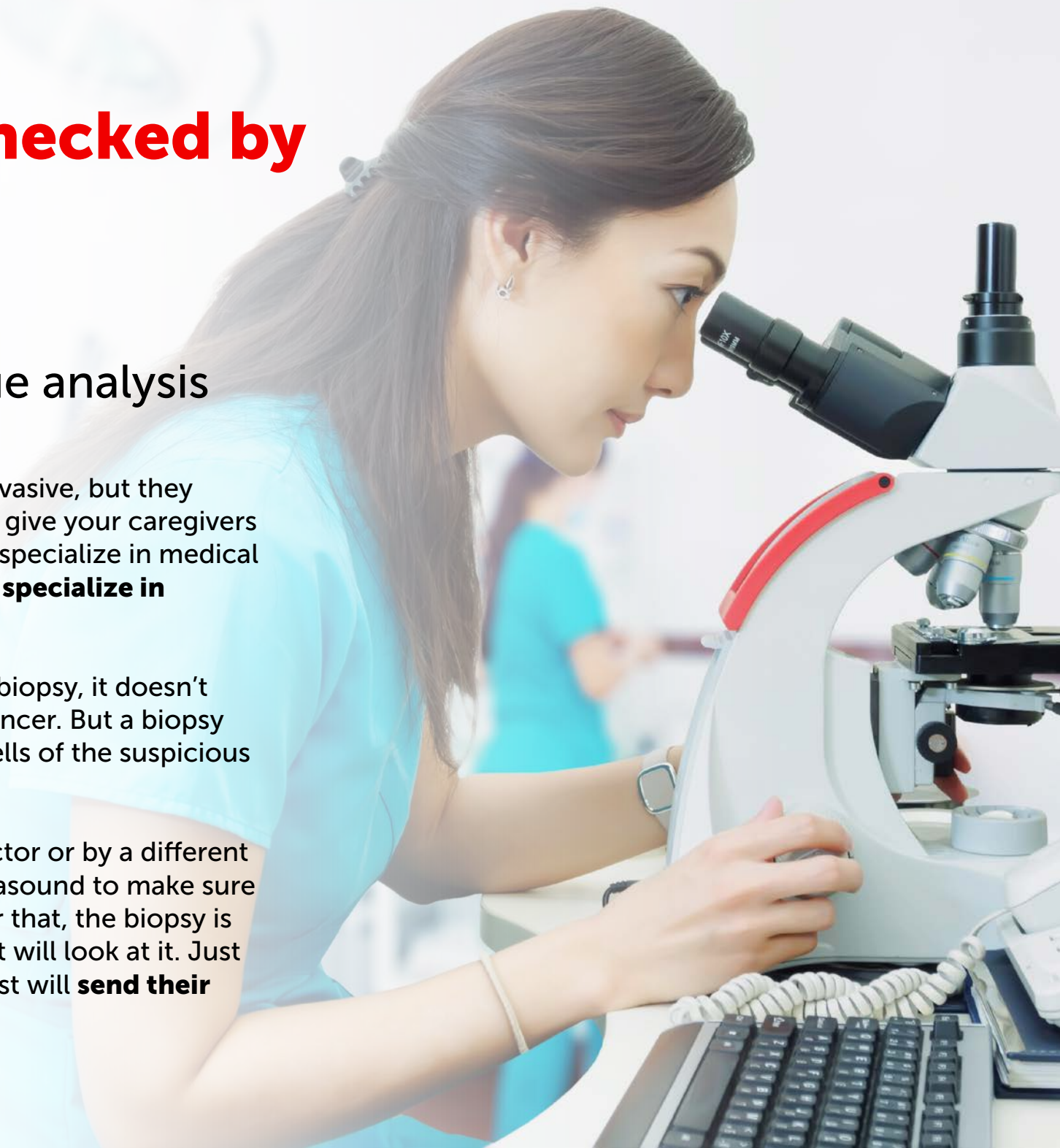
Biopsies are checked by pathologists

The pathologist: tissue analysis

Biopsies might feel a bit scary and invasive, but they provide a lot of information that can give your caregivers better insights. Just like radiologists specialize in medical images, there are **pathologists who specialize in analyzing actual tissue.**

If a doctor recommends you have a biopsy, it doesn't necessarily mean you have breast cancer. But a biopsy makes it possible to look at actual cells of the suspicious area.

The biopsy can be taken by your doctor or by a different specialist, possibly guided by an ultrasound to make sure they're aiming at the right spot. After that, the biopsy is sent to the lab where the pathologist will look at it. Just like a radiologist does, the pathologist will **send their findings back to your doctor.**



How do pathologists analyze my biopsy?

As mentioned, a biopsy is a small piece of tissue. In many pathology labs, these are **analyzed on a glass slide through a microscope**, a trusted method that has existed for literally centuries. They can zoom in and out to see the whole slide or a detail of it.

Some labs are starting to opt for a **digital way of working**. That means that they use dedicated equipment to create a digital image of your biopsy. These digital images are enormous and enable zooming in and out, as if they're being viewed through a microscope. They are analyzed on a specialized display – just like there are specialized displays for mammography radiologists too.

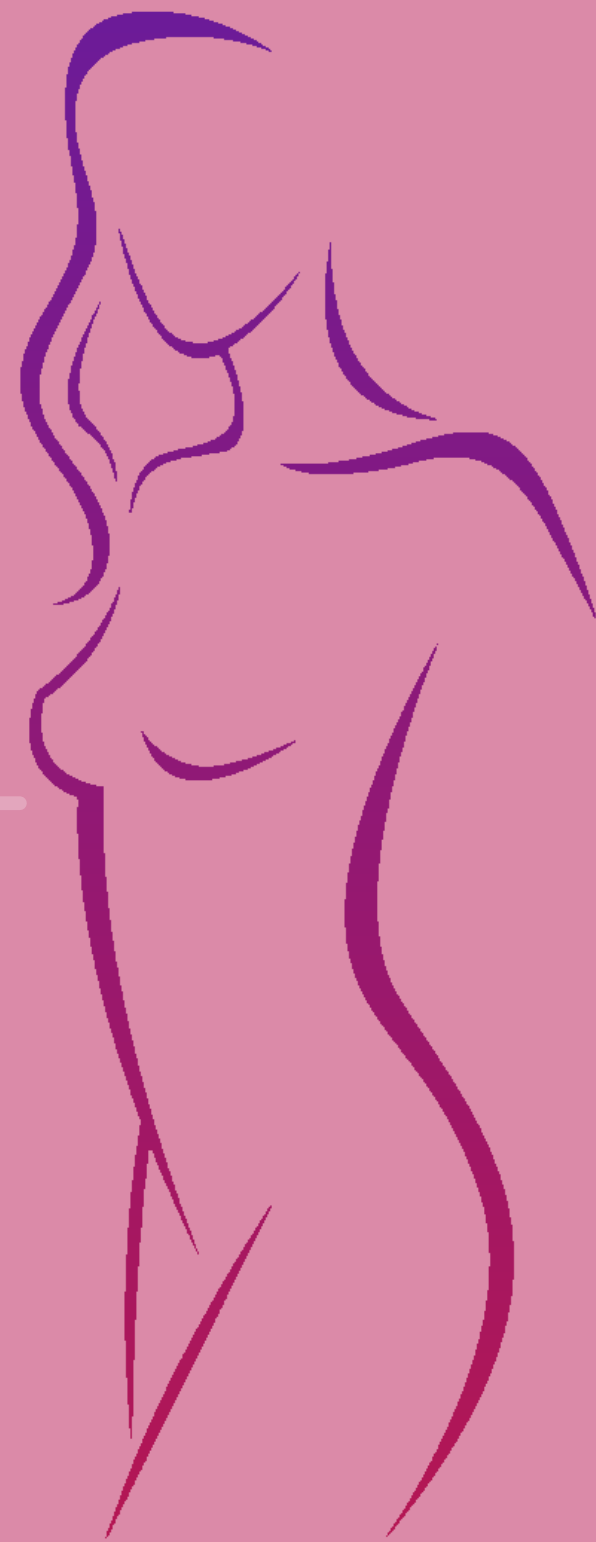
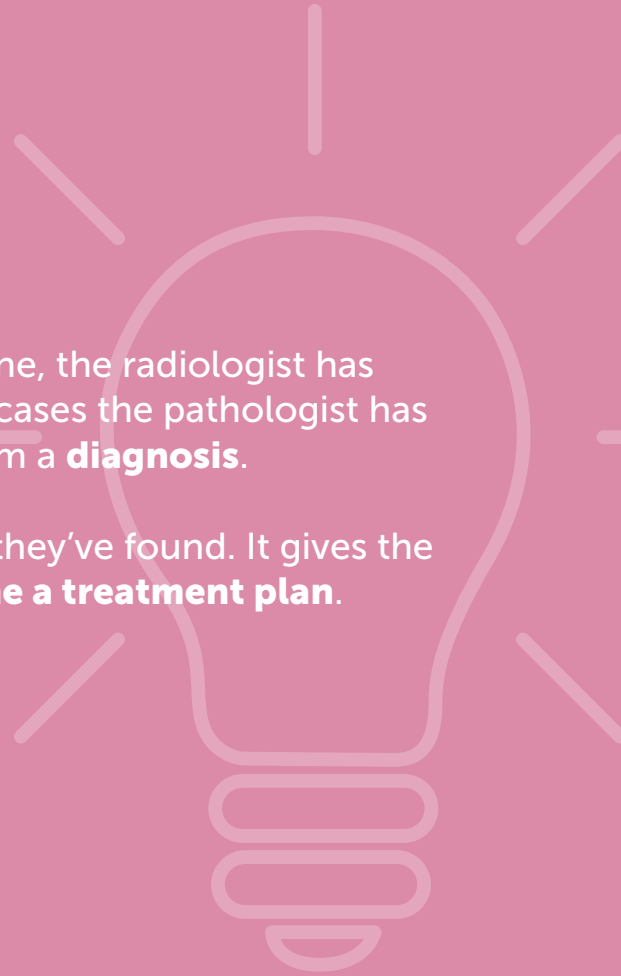
One advantage of this digital way of working is that the digital image can be shared faster and more easily with other medical experts.



Ready for diagnosis

When all the necessary tests have been done, the radiologist has analyzed your breast images, and in some cases the pathologist has checked your biopsy, your doctors can form a **diagnosis**.

The diagnosis is the identification of what they've found. It gives the medical team the **basis they need to define a treatment plan**.



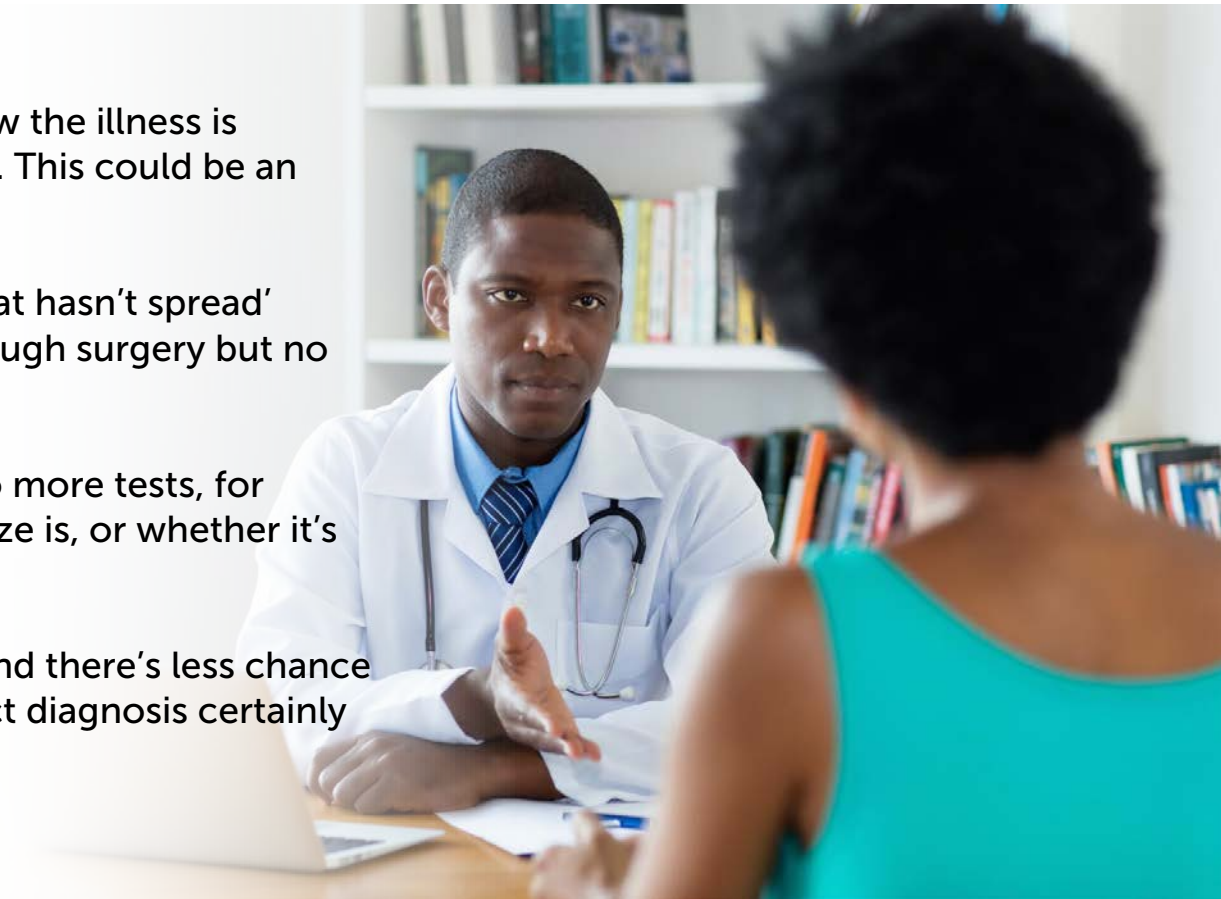
From diagnosis to treatment plan

Part of the treatment plan is an expectation of how the illness is expected to proceed. This is called the **prognosis**. This could be an example (in not too medical terms):

- the diagnosis could be: 'a small breast cancer that hasn't spread'
- the prognosis could be: 'remove the cancer through surgery but no chemotherapy will be needed afterwards'.

If the diagnosis is **breast cancer**, you'll need to do more tests, for example so the doctors can investigate what its size is, or whether it's spread to another part of your body.

If the cancer was found early, it will be smaller and there's less chance that this has spread. So early detection and correct diagnosis certainly have their effect on your treatment.



In the meantime, your case will be **discussed at a multidisciplinary team meeting or tumor board**. These are meetings in which a lot of different medical professionals come together to discuss cancer cases only. Behind the scenes, a whole oncological (specialized in cancer) team is taking care of you, for as long as is necessary.

You will usually be briefed about the diagnosis and the further steps that need to be taken by your doctor or gynecologist. In case you need to go to the hospital for more tests, there will also be nurses and specialists that guide you through the process. **Never hesitate to ask the questions you have!**



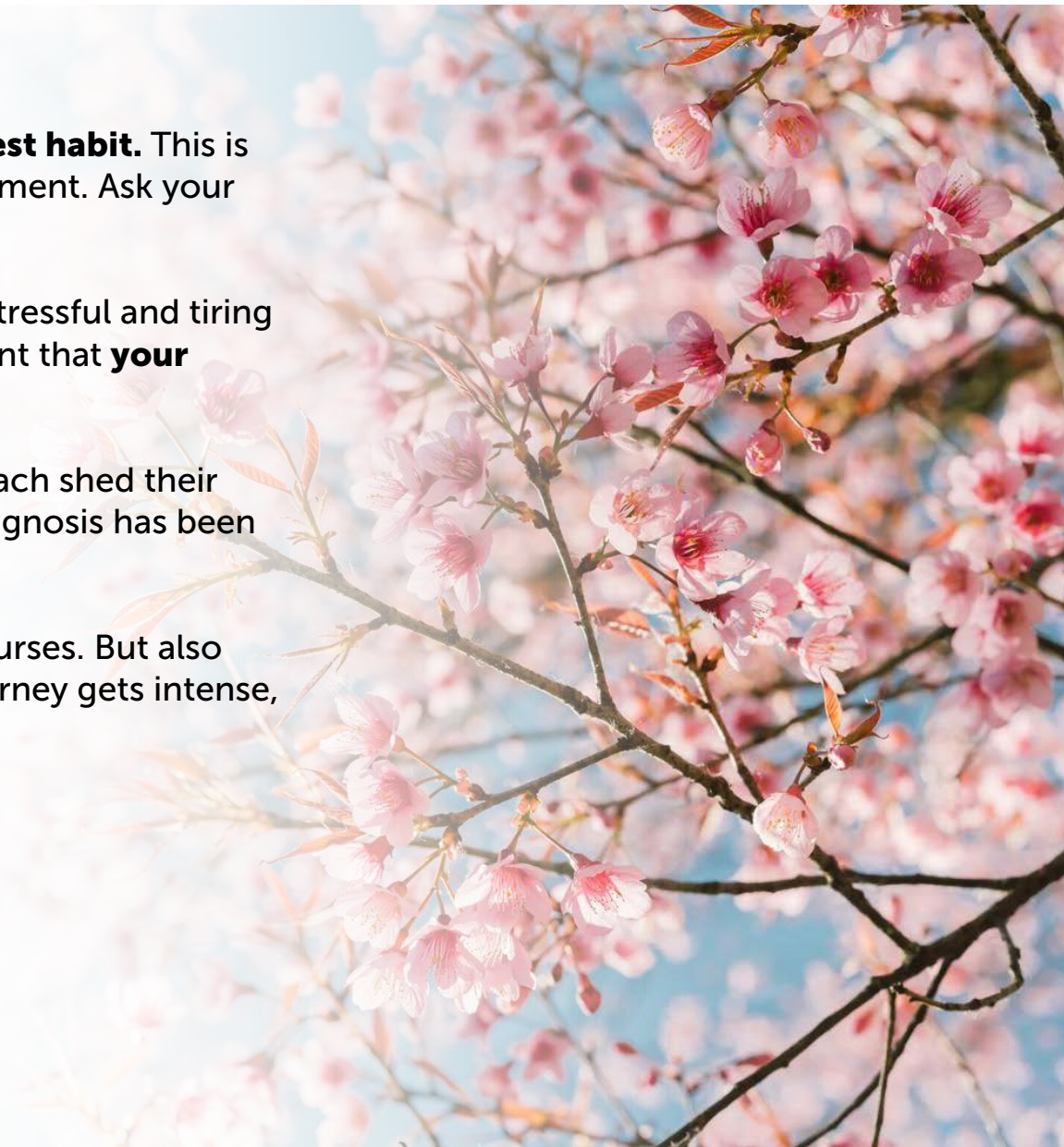
In a nutshell

Everything starts by keeping up a healthy regular test habit. This is the best way for early detection and to minimize treatment. Ask your doctor for more information.

When something was found in your breast, it can be stressful and tiring to go to a series of test appointments. But it's important that **your diagnosis is accurate.** A good start is half the battle!

There's a **whole team** of medical professionals who each shed their specialized light on your situation – even when no diagnosis has been made yet. You're not alone!

Never hesitate to ask questions to your doctors and nurses. But also reach out to family and friends, because when the journey gets intense, it can feel really good to talk to someone.



GET YOUR REGULAR CHECK-UP

- ✓ Check by your doctor or gynecologist, or screening mammogram by a radiologist
- ✓ No matter what your age or gender, don't hesitate to ask them for information about breast screenings!

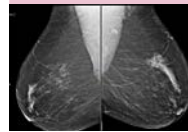
SOMETHING
SUSPICIOUS?

Remember: self-tests are only an additional check. They are not a replacement of medical screenings, which can detect breast cancer and other presences earlier and better.

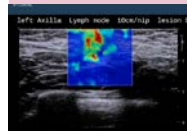
BREAST TESTS

... to map out the area

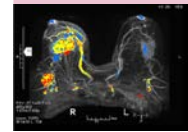
MAMMOGRAM



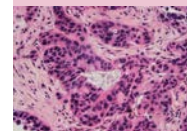
ULTRASOUND



MRI



BIOPSY



Checked by

radiologist

pathologist

Other tests can provide additional information to the medical team.

DIAGNOSIS

✓
Everything's
okay!

Something
benign was found
in your breast.

Something
malignant was
found in your
breast.

Your doctor or gynecologist will brief you about the result.

TREATMENT

Malignant or benign, your doctor or gynecologist will guide you through the next steps that need to be taken.

Supporting breast cancer heroes worldwide



Learn more on barco.com/breasthealthjourney

ENABLING BRIGHT OUTCOMES

BARCO