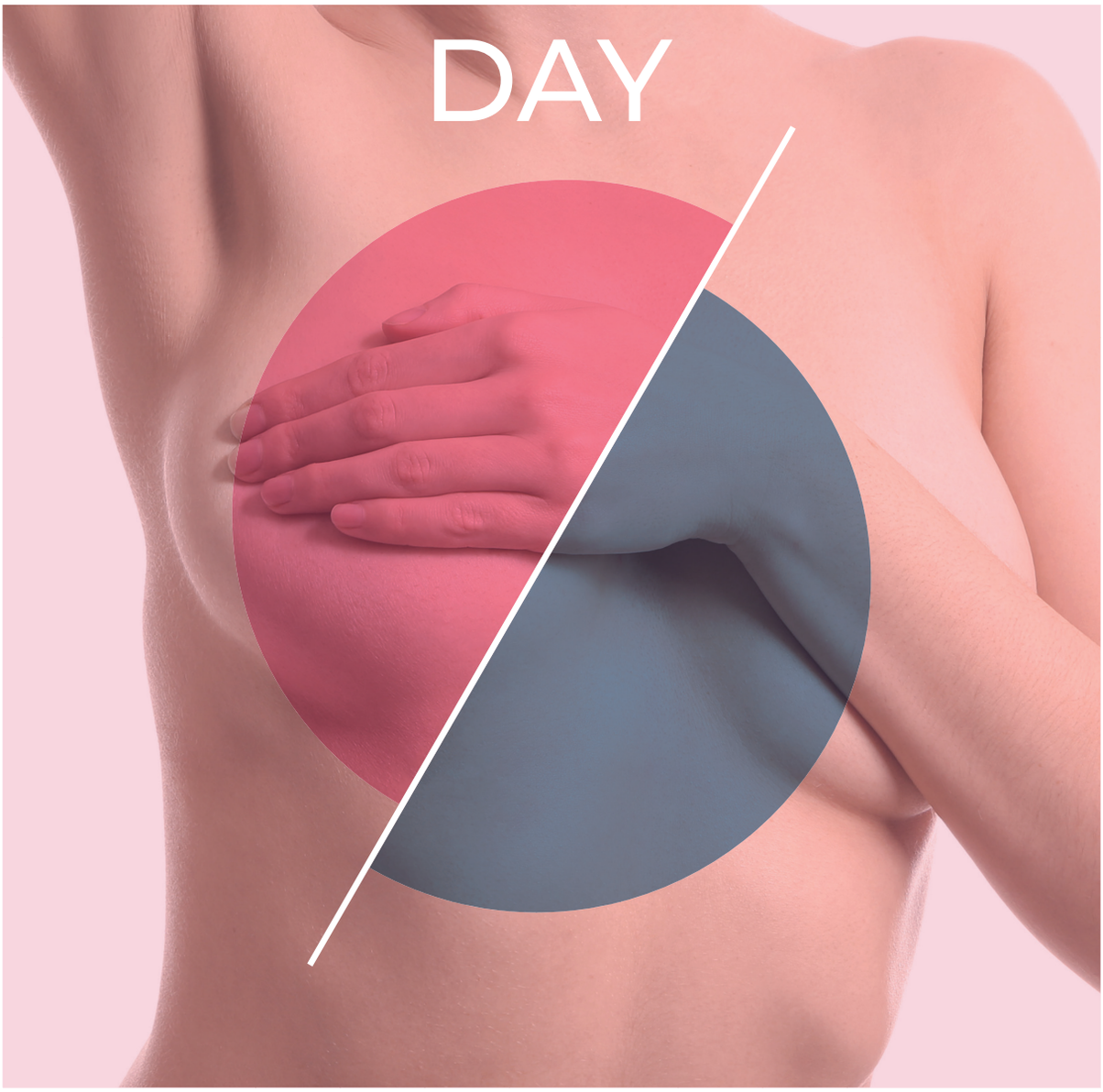
BREAST
RECONSTRUCTION
AWARENESS DAY

ROYAL BELGIAN SOCIETY
FOR PLASTIC SURGERY

Learn more about

BREAST RECONSTRUCTION

BRA DAY



BREAST
RECONSTRUCTION
AWARENESS DAY
ROYAL BELGIAN SOCIETY
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BRA Day, Breast Reconstruction Awareness Day

is an international day dedicated to improving the knowledge and awareness of women who are considering breast reconstruction after partial or complete amputation of the breast. On the occasion of this day, the Royal Belgian Society for Plastic, Reconstructive and Aesthetic Surgery (RBSPS) would like to highlight the role and responsibility that plastic surgeons carry within the multidisciplinary team in guiding women throughout the entire process of their “reconstruction”.

What is the best time to perform this surgery?
What are the options and the most appropriate methods?
What is meant by reconstruction with an implant?
What are the reconstruction techniques with autologous tissue, in other words with the patient’s own tissue?

Every day in our country, an average of twenty-five women learn that they have breast cancer and that their lives will change drastically as a result. Today, it is believed that one woman in nine is at risk of being affected by this disease. Despite this finding and the fact that the chances of cure are increasing, an estimated 70% of women who are eligible for breast reconstruction are not sufficiently informed about their options.

The decision whether or not to proceed with reconstruction after a mastectomy is a personal choice. However, it is not always easy to receive complete and objective information necessary to make informed decisions.

These are some questions that all affected have. They must therefore receive correct information, guidance and advice. In addition, they should all have access to techniques that are most appropriate in their situation.

The RBSPS has prepared this brochure to provide essential information for patients.
You will find details about the breast cancer care team, mastectomy, the different reconstruction types and secondary operations.

I Your plastic surgeon, an indispensable link in the breast cancer care team

When you are diagnosed with breast cancer, you should be assisted and guided by a multidisciplinary team of medical professionals. The most optimal care can only be assured in this way.

This team consists of the following specialists:

- a radiologist specialized in breast imaging
- a general surgeon / gynecologist / breast surgeon
- a plastic surgeon
- an oncologist
- a radiation oncologist
- a nurse from the breast clinic / psychologist / physiotherapist.

If one of these specialists is missing in your care team, try to find out the reason for this. These healthcare professionals will also work closely with your general practitioner.

The plastic surgeon plays an important role within the multidisciplinary teams and in breast clinics. After all, he or she has received appropriate training and is familiar with the most recent breast reconstruction techniques. He or she can propose tailor-made solutions and can guarantee the quality of the treatment.

References provide an important indication of quality and competence. In Belgium, the RBSPS therefore guarantees that all of its members:

- have completed a formal training in surgery of at least 6 years, of which a minimum of 3 years in plastic surgery
- are trained and experienced in all plastic surgery procedures including breast, body and facial reconstructions
- observe a strict code of ethics
- meet the constantly evolving requirements in the field of medical education.

You will find an overview of all these specialists on the RBSPS website:

WWW.RBSPS.ORG

A certified plastic surgeon can also be recognized by a RIZIV number ending in 210.

You are in good hands in Belgium, as our country is a leader in the development of breast reconstruction techniques.

Mastectomy

Mastectomy (breast amputation) is an important factor in determining the reconstruction type and aesthetic outcome of the reconstructed breast. Consequently, the mastectomy should be carefully adapted to each patient and to the type of breast reconstruction being considered. In specialized breast clinics, you will be closely guided through the treatment procedure by a multidisciplinary team. Following thorough review of the possibilities, the most suitable choice with regard to mastectomy will be made together with you from the following options:

- traditional mastectomy, with complete removal of the breast tissue, a wide patch of skin around the tumor and the nipple and areola (colored surface around the nipple)
- skin-sparing mastectomy, in which the skin of the breast is preserved as much as possible, however the nipple and areola are still removed
- nipple/areola sparing mastectomy, sparing the entire breast envelope
- breast lift / breast reduction.

Breast conserving surgery (tumorectomy)

In most breast cancers, the treatment can be breast-conserving: the surgeon does not remove the entire breast tissue, but only the tumor and a safety margin of healthy tissue. In those cases, radiation therapy after surgery is mandatory.

In the past, this method was only used to treat very small growths or nodules, but thanks to oncoplastic surgery, it can now be used more often.

For this, plastic surgeons use similar techniques to those used for breast reductions in women with breast volume that is too large. In a wide margin tumorectomy (removal limited to the tumor) or a quadrantectomy (removal of a quarter of the breast), the glandular tissue can be remodeled immediately after the removal of the tumor. In this way, the breast contour is well preserved, whilst ensuring appropriate oncological safety. These techniques are most suitable in cases of major lesions where standard breast-conserving treatment is not possible without radically changing the shape of the breast or when a mastectomy is not required oncologically.

After tumor removal and radiotherapy, the breast may show visible deformities. Some common problems include breast irregularities, breast asymmetry, hardness, and changes in skin pigmentation. Such deformities can be prevented to some extent with oncoplastic surgery or can be corrected afterwards through various plastic and reconstruction techniques.

Before removing the tumor, the patient should consult a plastic surgeon to discuss the reconstruction options.

Genetic testing and prophylactic mastectomy (preventive mastectomy)

Certain gene mutations - the most well-known of which are in the BRCA1 and BRCA2-genes - have an increased risk of breast and ovarian cancer. For the carriers of these mutations, this risk can be up to 85% higher. In certain very specific cases, genetic testing may be considered after consultation with an oncogenetics specialist.

Following are some risk factors:

- have a family member who carries a BRCA or other gene mutation
- have had breast cancer at a young age (diagnosis before age 45)
- a family history of breast cancer at a young age
- a family history of ovarian cancer
- ...

If you are a carrier of a gene mutation, a bilateral prophylactic mastectomy preventive mastectomy on both sides) may be considered. In women who have not been diagnosed with cancer, but who carry this gene mutation, their risk of breast cancer can be reduced by up to 90% by preventive amputation of the breasts.

Those who do not wish to undergo preventive surgery should be screened earlier and more frequently by means of magnetic resonance imaging (MRI), ultrasound and mammography.

The aim of breast reconstruction is to return the breast(s) to its normal shape, appearance, symmetry and size after a mastectomy or breast-conserving surgery. Breast reconstruction usually consists of several operations, which are performed in stages. The reconstruction, which is possible for one or both breasts, can start immediately or be postponed until a later date.

One of the first decisions a patient must make in consultation with her plastic surgeon, is the type of breast reconstruction she will undergo. The reconstruction can happen at the same time as when the tumor is removed or at a later date. The reconstruction is usually performed either with an implant or with the body's own tissue.

I Breast reconstruction

The latter technique is often referred to as flap reconstruction or reconstruction by transfer of a skin flap.

When choosing the reconstruction technique, the type of mastectomy, the cancer treatment and the patient's anatomy should be taken into account.

Immediate versus delayed breast reconstruction

The decision to either perform reconstruction at the same time of the tumor removal or at a later date should be made in consultation with your plastic surgeon prior to your surgery. This also depends on your risk factors, the results of your biopsy and other treatments you will undergo.

Immediate reconstruction

A reconstruction of this type begins during surgery to remove the tumor. This is also the option presented to most women.

Benefits
The patient wakes up with a less pronounced deformity of the breast and the reconstruction is already well advanced. This type of reconstruction thus offers mainly a psychological and aesthetic advantage.

Downside
Many women consider the longer duration of surgery and recovery to be the biggest drawback of immediate reconstruction. In addition, any radiation therapy following surgery can be detrimental to the quality of the reconstructed breast.

Delayed reconstruction

Although some patients find it emotionally difficult to go through life without breast(s) for a long or undetermined period of time, many women believe that late reconstruction gives them time to focus on treatment and search for the type of reconstruction that best meets their needs.

The different techniques explained further in this brochure can also be applied to them, taking into account the requirements associated with each surgical technique. In addition, some patients may have advanced stage disease and/or require radiation as part of their treatment plan. A late reconstruction may therefore allow for this additional treatment to be performed more quickly.

I Types of implant reconstruction

Tissue expander

This step-by-step method involves the initial placement of a temporary tissue expander. This allows to loosen the skin in a progressive manner to create a soft, tension-free cavity which will serve as a recipient site for the implant with silicone or a salt-water solution.

A few weeks after expander placement, when the patient has adequately recovered, we start with the expansion process of the expander. This procedure can happen in the consultation room. Once the overlying tissue has been adequately expanded, the expander is replaced by a permanent implant in an ambulatory procedure (usually a one-day hospitalization).

Hospital stay: 3 to 4 days
Recovery period: multiple weeks

Immediate reconstruction with implant

In some patients, reconstruction with the implant can be done “in one go”. With this technique, a permanent implant is inserted immediately after the mastectomy without the need for a tissue expander. Although the use of an expander can be avoided, some patients require a second procedure.

You are eligible for both procedures if you:

- are not eligible for reconstruction using the body's own tissue
- do not want reconstruction with your own tissue
- do not want damaged tissue in the area of the mastectomy
- were never irradiated at the level of the chest or the chest wall
- are undergoing a preventive mastectomy
- wish a two-sided reconstruction
- are undergoing reconstruction immediately after a nipple/areola-sparing mastectomy
- wish to have surgery on the opposite breast to improve symmetry.

Available breast implants

A saline breast implant is a silicone elastomer shell that is surgically implanted under your breast tissue and/or muscle and then filled with a saline solution through a valve.

Unlike saline breast implants, silicone breast implants are pre-filled with silicone gel.

I Types of reconstruction with the patient's own tissue (flap)

TRAM-flap

A TRAM-flap (transverse rectus abdominis myocutaneous) involves the transfer of tissue attached to the large rectus abdominis muscle. This technique uses abdominal muscles, skin and fat to reconstruct the breast shape. Since the patient's own tissue is used, the reconstructed breast appears very natural. In addition, the patient gets a flatter stomach. The scar is located low on the lower abdomen and extends from one iliac crest (upper part of the pelvis) to the other.

This technique can be used to reconstruct one or both breasts. In a woman undergoing unilateral reconstruction, the TRAM flap may provide better symmetry than an implant reconstruction.

Hospital stay: 5 to 7 days
Recovery period: several weeks

You are eligible for this type of reconstruction if:

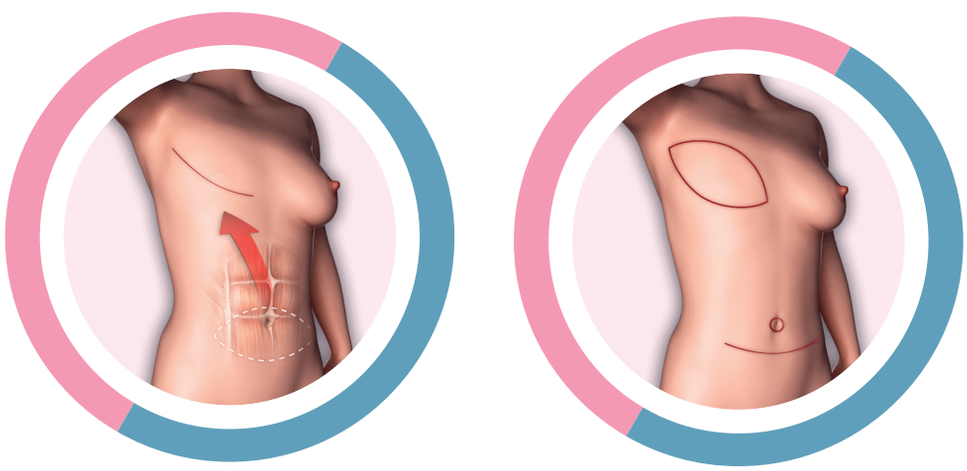
- you want your own tissue to be used for breast reconstruction
- you do not wish to have an implant reconstruction or are not eligible for this technique
- you have enough abdominal tissue to reconstruct one or two breasts
- you have not had any abdominal surgery before
- you have previously had radiation therapy to the chest wall
- an implant reconstruction has failed
- you are undergoing immediate reconstruction at the time of a skin-sparing mastectomy
- you are undergoing delayed reconstruction after a mastectomy.

Free abdominal flap

Hospital stay: 5 to 7 days
Recovery period: several weeks

Thanks to advances in microsurgery over the last decade, several new techniques are available, including the DIEP-flap (deep inferior epigastric perforator), the SIEA-flap (superficial inferior epigastric artery) and the free TRAM-flap.

These microsurgical techniques allow women to have a very natural breast reconstruction using abdominal tissue. Because the actual abdominal muscle - or only a very limited part of it - is used here, fewer complications occur in the abdominal area. The final choice of flap to be transferred depends on the patient's anatomy.



However, these procedures are of a longer duration and can cause other complications. They should only be used by plastic surgeons who regularly perform microsurgery in facilities experienced in monitoring these flaps.

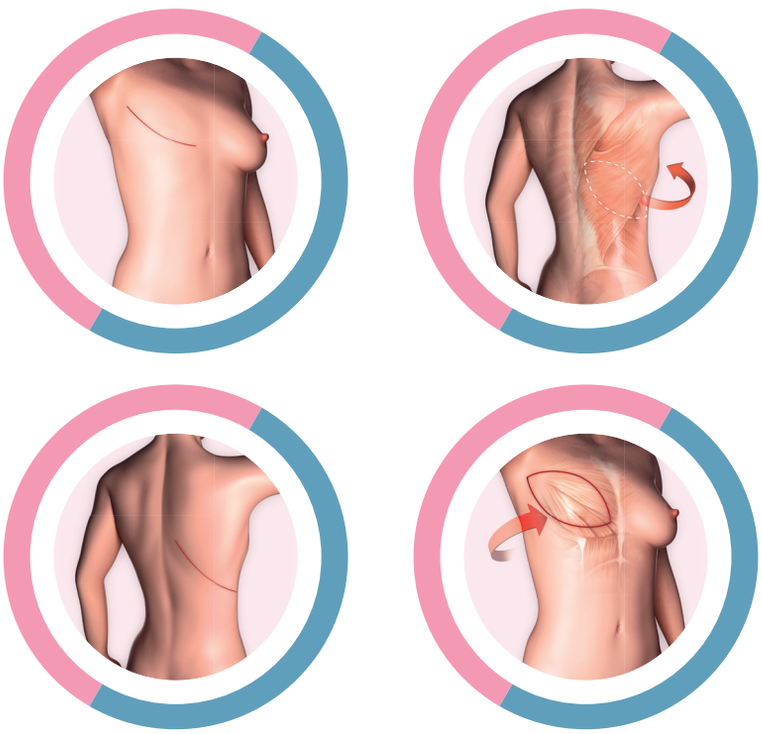
Latissimus Dorsi muscle flap

Hospital stay: 3 to 7 days
Recovery period: several weeks

The latissimus dorsi muscle is the main back muscle that covers the rib cage. This flap is usually combined with a tissue expander (see above) or an implant to expand surgical options and achieve a better aesthetic result. At the time of breast reconstruction, the flap is detached from the patient's back. This flap consists of soft tissue that can provide a breast shape with a more natural appearance than can be obtained with an implant alone. Depending on the woman's physique, the scar on the back can be diagonal or horizontal. It can often be hidden under the strap of a bra.

You are eligible for this type of reconstruction if you:

- are thin and your breasts have a small volume
- have excess back tissue
- were previously irradiated and undergoing reconstruction with an implant
- are not eligible for other types of breast reconstruction using the body's own tissue
- undergoing partial breast reconstruction to correct the outcome after a tumorectomy
- have thin skin that needs extra coverage for an implant
- desire a more natural appearance of the reconstructed breast that can only be obtained with an implant.



Alternative flaps

When abdominal flaps cannot be used due to a lack of tissue or due to previous abdominal operations such as an abdominoplasty (tummy tuck), more than enough tissue can be obtained from other parts of the body for a breast reconstruction with your own tissue.

SGAP (superior gluteal artery perforator) or buttock flap

The surgeon transplants the skin and fatty tissue from the buttock to the chest. This technique is identical to that of the DIEP flap operation (see above).

The scar runs from one side of the buttock to the other, but you can cover it with normal underwear. However, the contour of the buttock may change slightly. In addition, the fatty tissue of the buttocks is slightly more rigid than that of the abdomen, which may make the reconstructed breast less supple and make it more difficult for the surgeon to reconstruct an ideal breast shape. That is why a secondary operation usually follows six months after the first operation to correct the shape.

TMG (transverse myocutaneous gracilis) or inner thigh flap

In this surgery, skin and fat tissue from the inner thigh is transplanted to the chest. Part of the gracilis muscle (a secondary muscle of the thigh) is included in the flap, along with its blood vessels to supply the muscle.

The scar is located on the inside of the thigh and runs from the front of the groin to the back below the buttock fold. This scar can be covered with normal underwear.

Reconstruction by lipofilling

Lipofilling is a surgical technique in which subcutaneous fatty tissue is removed with liposuction and then injected to add volume. Liposuction removes fatty tissue from the abdomen, hips or thighs. This obtained adipose tissue is then purified and injected at the level of the breast.

The lipofilling technique is a good, minimally invasive technique to add volume to the breast. This technique can possibly be used for the reconstruction of a small breast. For larger reconstructions, lipofilling is not an ideal solution. One should also take into account that several sessions will be needed to build up a volume, each time with a few months in between.

It is a suitable technique to correct smaller defects in the breast area, to improve certain areas of the breast (the contours) or to improve the quality of the skin, for example after radiation.

Lipofilling is often also used to perform additional corrections after a previous breast reconstruction with your own tissue or an implant. Breast reconstruction with an implant is very often supplemented with a lipofilling procedure to obtain optimal coverage of the prosthesis.

Secondary procedures

Typically, breast reconstruction is performed in several steps. More than one operation is almost always required to achieve optimal results, even when the reconstruction is done immediately after a mastectomy.

Operation of the opposite breast

The symmetry with the reconstructed breast can be achieved by reducing, lifting or enlarging the other breast by means of an implant.

Implant corrections

Common corrections of implant reconstructions aim to correct contour or fold abnormalities, or to correct the formation of scar tissue around the prosthesis in women who have had radiation treatment.

Correction of reconstruction with own tissue

After reconstruction with the body's own tissue, a second operation often has to be performed to give the breast its final contour and to reconstruct the areola (colored surface around the nipple).

Reconstruction of the areola

Areola reconstruction is the last surgical stage of breast reconstruction. The areola is reconstructed by moving a small piece of local skin or graft.

Areola tattooing

The last part of breast reconstruction is tattooing the areola (colored surface around the nipple). This quick, easy procedure is usually done in your plastic surgeon's office.

Insurance coverage for reconstructive surgery

Reconstructive surgery, which includes breast reconstruction, is covered by Social Security and most health insurance policies.

"When the verdict of cancer and later that of breast amputation struck, I could only think of one thing: curing. The mutilation was only a detail for me at that time.

During the treatment, in anticipation of the long-awaited declaration of healing, you must learn to live with the external breast prosthesis. Even though it is certainly helpful at first, it is not exactly pleasant to live with day in and day out.

Then comes the time for reconstruction. A reconstruction that is not only physical, but also mental. It is the moment when you rediscover your pre-cancerous body, when you can come to terms with your 'mutilations'. It is the final step, which is not only necessary for your partner and children, but especially for yourself. You must learn to appreciate your body, which had abandoned you, again.

Before plunging into this 'adventure', I met 3 different surgeons. I asked them all possible questions in order to feel completely comfortable with the procedures. Then I took some time to carefully think over this decision. Eventually I opted for a DIEP flap reconstruction, which was not the easiest solution, but gives a very natural result.

Today I have it all behind me: the DIEP flap reconstruction, the lipofilling sessions to improve the curve, the reconstruction and tattooing of the areola. I don't regret my decision. Whatever type of breast reconstruction you choose, it is essential to feel completely at ease with the medical team. The road to reconstruction was long, but thanks to the excellent care, it was not difficult."

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This brochure was produced in close collaboration with the ASPS, a sister association of the RBSPS.

More information about breast reconstruction can be found at

www.rbsps.org

More information on breast cancer can be found at

www.kanker.be/borstkankers

www.cancer.be/les-cancers-types-de-cancers-liste-z/cancer-du-sein

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