

Centre for Breast Cancer Surgery

BREAST CANCER: A QUESTION OF QUALITY OF LIFE



DIAGNOSED WITH BREAST CANCER – WHERE TO FROM HERE?

The diagnosis of breast cancer can trigger strong feelings of uncertainty and despair. The initial shock may be quickly followed by fear, as well as numerous questions: How serious is my condition? Can my cancer be cured? Will I have to undergo unpleasant chemotherapy? Will I lose my breast? These feelings of being overwhelmed and helpless are understandable, but through all the fear you must not forget: breast cancer is curable in the majority of cases, if it is diagnosed early and treated properly.

The three objectives of the right breast cancer treatment

The ultimate goal of any breast cancer treatment is always the complete removal of the tumour. If breast conservation is not possible and the breast must be completely removed, patients should be able to form as clear a picture as possible of their options by obtaining comprehensive advice and information. Even if swift action is needed, there is enough time for a thorough evaluation and to weigh up the pros and cons of the various treatment options.

The right breast cancer treatment is the one that is the most effective oncologically, can achieve the best cosmetic result and will lead directly to the goal – the end of treatment – without any additional, unnecessary procedures.

Second opinion from a plastic surgeon

Ultimately, as well as the oncological cancer treatment, the question of quality of life is key. Doing the right thing means not just conquering cancer – it is also about ensuring your quality of life is not impaired, despite the required treatment. This is why a second opinion from a plastic surgeon specialising in tumour and breast reconstruction surgery is always recommended.

REMEMBER:

- Breast cancer is not an emergency. Do not rush.
 - You have enough time for a thorough investigation. Do not make any hasty decisions.
 - Make sure you are well informed. Obtain at least one second opinion from a plastic surgeon.
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OUR PHILOSOPHY: THE ONCO-PLASTIC APPROACH

For many years, breast cancer treatment focused solely on the prevention and removal of tumours. Often far too little attention was paid to the physical and emotional effects of stressful cancer treatments. The current options presented by onco-plastic surgery are holistic treatment concepts that allow for the best possible coordination of tumour removal and breast reconstruction.

Removal of the tumour and preservation of physical integrity

The ultimate goal of any breast cancer treatment is always the complete removal of the tumour. Through a better understanding of tumour biology, the approach to treating breast cancer has shifted increasingly in favour of breast conservation therapy. However, the complete removal of the breast is unavoidable in around a third of patients. Evidence now shows that breast reconstruction can have a positive influence on the quality of life of women affected, and has no disadvantages for the outcome of the disease. Before beginning the first treatment, it is important to create a plan that takes into account all oncological aspects as well as the aesthetic needs of the patient. The goal of any breast cancer treatment is to go directly to the desired outcome with as few complications as possible for the patient and as little effort as possible on their part.

Current reconstruction options

A variety of well established, highly innovative surgical methods are used for breast reconstruction today. There are two main reconstruction techniques: reconstruction with an implant or with the patient's own (autologous) tissue, or a combination of the two. Complex reconstructive surgery, particularly with the patient's own tissue, requires extensive surgical expertise and many years of experience in the field of microsurgery. However, there are currently only a few centres that are able to offer their patients the full range of reconstruction methods. The Centre for Breast Cancer Surgery at the Pyramid Clinic specialises in autologous reconstruction.



KEY FACTS ABOUT BREAST CANCER

What is breast cancer?

Breast cancer, also known as carcinoma of the breast, is defined as a malignant tumour of the breast. In Switzerland, breast cancer is the most common cancer in women, with approximately 4,000 new cases per year. The risk of disease gradually increases from the age of 40. In very rare cases, breast cancer may also occur in men.

How does breast cancer develop?

Breast cancer begins when previously normal cells of the mammary glands (made up of mammary gland lobules or milk ducts) become malignant. This is followed by uncontrolled and more rapid growth until, over time, solid lumps with irregular surfaces form. These can be felt when examining the breast.

What are the causes and risk factors?

It is believed that several factors influence the risk of developing breast cancer, such as unhealthy diet, obesity, smoking, childlessness and hormone replacement therapies. Frequent cases in the family and other genetic influences also play a role, but these should not be overstated as risk factors.

What are the typical symptoms of breast cancer?

Breast cancer does not usually cause any pain or discomfort. The following may be signs of breast cancer and require investigation by a doctor: new, hard lumps in the breast, dimple-like skin indentations on the breast, inversion of the nipple, a newly developed difference in size of the breasts, inflammation or redness of the nipple in women who are not breastfeeding, leakage of fluid from the nipple (especially when bloody and only from one nipple), or enlarged lymph glands in the armpits.

Does breast cancer mean that your breast will have to be removed?

Whether a breast needs to be removed entirely or only partially depends on the size and type of the tumour. Breast conservation surgery is possible in the majority of cases, which means that only the affected part of the breast is removed. However, if the tumour is large or if there are multiple tumours, complete removal of the breast is usually necessary. In these cases, we offer immediate reconstruction with the patient's own tissue or an implant, performed in the same operation, to restore the woman's physical integrity.

Is screening more difficult if you have breast implants?

Breast screening can also be carried out if you have implants. Ultrasound and MRI are particularly suitable in this case.

Can breast reconstruction adversely affect the healing process?

It is now clear that this is definitely not the case. Scientific studies have shown that breast reconstruction does not negatively influence the prognosis.

Can breast cancer be completely cured, or is there a risk of the tumour growing back?

A cure is possible in the majority of cases. With early diagnosis and proper treatment, the chance of the cancer being cured is greater than 90 per cent. However, the exact prognosis depends on the type of tumour and its stage of growth. A recurrence or the development of a new tumour can unfortunately never be completely ruled out, even many years after treatment. However, with today's treatment options, the chances of enjoying a high quality of life are very good.

SELF-EXAMINATION, SCREENING AND DIAGNOSIS

Current diagnostic methods allow for early and thorough assessment for possible disease. Regular self-examination of the breast after each menstrual period is important, because in most cases a woman will find a lump herself. Only women who are familiar with their own breasts are in a position to spot potentially dangerous changes in the early stages and have them checked by a doctor immediately. Your doctor will examine the breast and palpate it. In cases of suspected breast cancer you will be referred to a specialist centre. The following methods are available to support any findings:

Mammography

A mammogram is a special x-ray of the breast and is a standard investigation. It is able to display the glandular tissue on two to three levels. This allows the radiologist to detect minor differences in the density and composition of the tissue. Even the presence of the tiniest calcium deposits can be detected. This is frequently the first sign of breast cancer. To produce the images, the breast is placed between the x-ray tube and the film plate and then carefully compressed. Although there is no mammography screening programme in Switzerland, we recommend that women over 50 have a mammogram every year.

Ultrasound

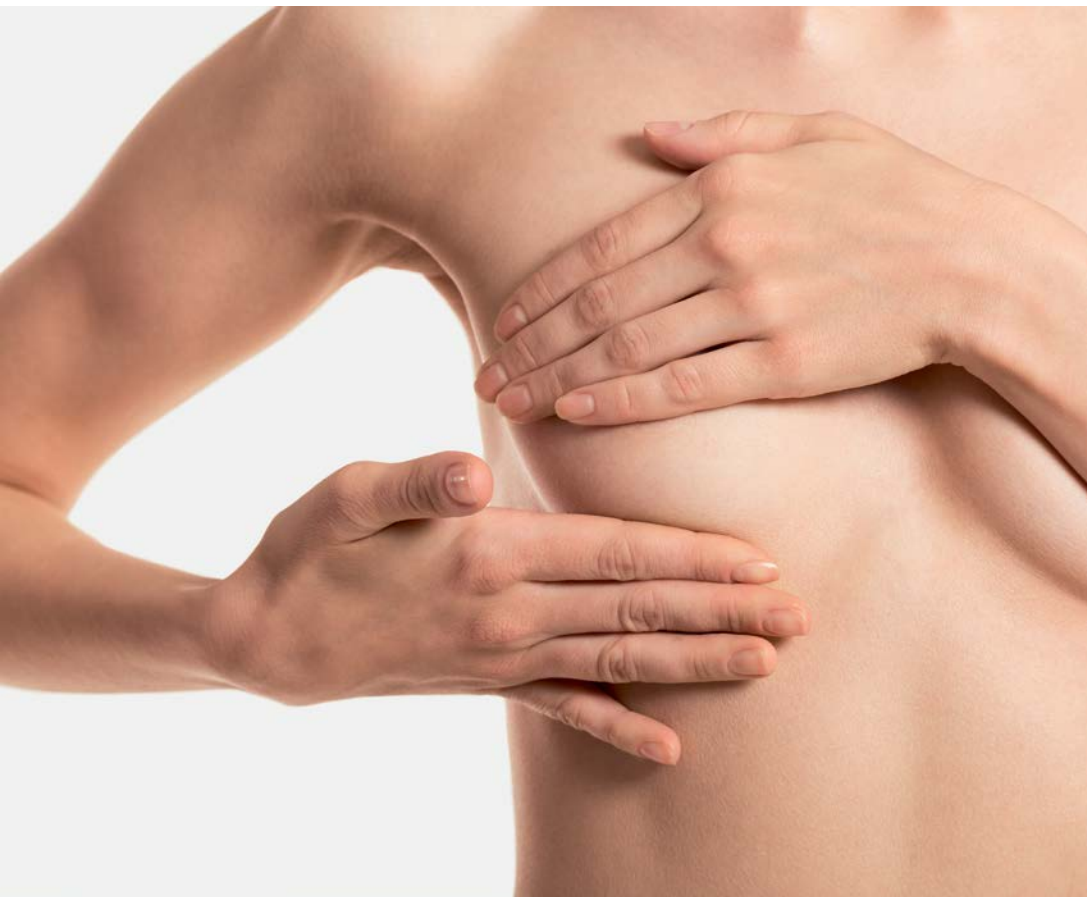
A supplementary ultrasound examination may be performed to confirm the results of the mammogram. This provides the doctor with two-dimensional images that offer a spatial view of the size, shape, structure and composition of the breast, soft tissue and vessels.

MRI

MRI, or Magnetic Resonance Imaging, is a technique for displaying internal organs and tissues. It uses magnetic fields and radio waves. During the procedure, the patient lies on a scan table inside the machine. The advantage of this technique is that it provides very precise and well-differentiated imaging of body tissues. Even minor changes can be detected in this way. This is why magnetic resonance imaging is used if the diagnosis of breast cancer is unclear.

Fine needle aspiration

Fine needle aspiration is a technique to extract cellular material from certain tissue sections. The doctor inserts a hollow needle into the tissue from which a sample is to be taken. This sample is then examined in a special laboratory. Experienced cytologists are able to classify cells under a microscope relatively precisely and confirm or reject any suspected diagnoses from earlier investigations.



Punch biopsy

In a punch biopsy, a thin cylinder, usually controlled by ultrasound, is used to remove and examine tissue samples. This method is somewhat more painful, but it produces more detailed results than a fine needle aspiration and is therefore used when the findings of previous tests are inconclusive.

High-risk patients

Breast cancer occurs frequently in some families, often at an early age, and sometimes in combination with ovarian cancer or breast cancer in men. If a genetic test indicates that the tendency towards this disease is inherited, it is known as genetic or hereditary breast cancer. These families are referred to as high-risk families. A cancer is genetic or hereditary if the presence of a disease-causing gene (such as BRCA1 or BRCA2) can be identified using a genetic test. A precautionary mastectomy with immediate breast reconstruction is recommended in these cases.

BREAST CANCER SURGERY

Each breast cancer treatment has its advantages and disadvantages and depends on various factors such as tumour type, stage of disease, physical condition, health status and aesthetic preferences.

Breast conservation

Breast conservation therapy is practised wherever possible. This is frequently the case for small to moderately sized tumours and medium-sized breasts, provided only a compact, solitary, single lump is involved. For larger tumours, preliminary chemotherapy may be appropriate to reduce the size of the tumour so that subsequent breast conservation surgery becomes an option. The malignant tumour is removed along with a surrounding rim of healthy tissue. To ensure that no cancerous cells are left behind, the tissue removed is examined under a microscope during the operation, to establish whether the tumour has in fact been completely removed. The visual results of surgery can be improved if plastic surgery procedures are carried out at the same time, for example, by matching the form of the healthy breast or by combining the surgery with a breast lift. To ensure that breast conservation treatment has the same chance of success as complete breast removal, the patient must undergo a five-week period of additional radiotherapy.

Sentinel lymph node technique

The sentinel technique is used during the first operation to determine whether tumour cells have spread and been intercepted in the lymph nodes in the armpit, which act as a filter station, indicating that the disease has already spread in the lymphatic system (known as regional metastasis). The lymph node that is removed is examined under a microscope using a special procedure, while the breast cancer surgery is still in progress. If fine tissue analysis of this lymph node reveals that it is free of tumour cells, the surgeon does not need to remove the remaining lymph nodes.

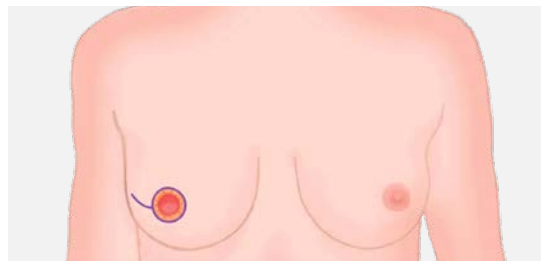
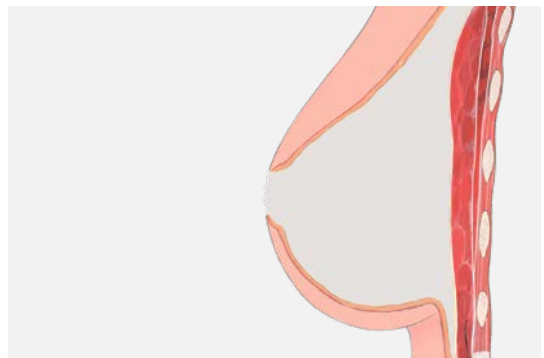
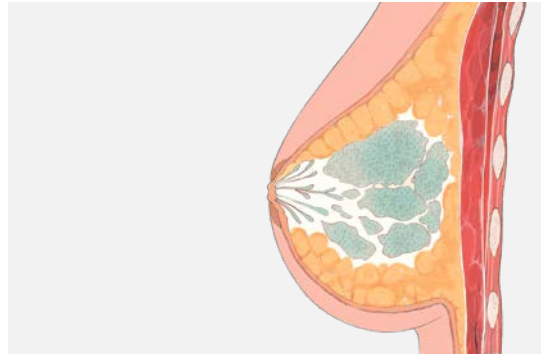
Mastectomy

The terms total mastectomy and ablation refer to the complete removal of the breast. A total mastectomy is fortunately less common, but in some cases it is inevitable, especially in late-stage breast cancer, for large tumours, if the tumour has certain biological characteristics, or if there are special anatomical considerations for the patient. These days, there are well-established options for immediate or delayed breast reconstruction available in these cases.

They help to restore the physical integrity of the body and mean that the patient can continue to feel like a woman. Primary/immediate reconstruction is undertaken at the time of the mastectomy. Secondary/delayed reconstruction takes place at a later point in time and means a second operation.

Skin-sparing mastectomy

Thankfully, the radical nature of mastectomy has improved dramatically over the past few decades. Numerous scientific studies have shown that the removal of just the glandular tissue is sufficient in order to be tumour-free. This means that, nowadays, the mastectomy can be performed by removing the nipple and glandular tissue, while leaving the skin in place (see figure 1). The great advantage of this ‘skin-sparing’ mastectomy is the preservation of all important structures that define the breast. This has a positive influence on the final cosmetic outcome.



Skin-sparing mastectomy: only the nipple and the glandular tissue are removed.

BREAST RECONSTRUCTION: IMMEDIATE OR DELAYED

The experience of breast cancer and the loss of a breast as a symbol of femininity, fertility and motherhood can be traumatising for women and their families. Although every woman has an individual view of her own body, various scientific publications have confirmed the positive effects of breast reconstruction on women's psychological well-being and quality of life during and after overcoming the disease.

Immediate reconstruction

These days, with the radiotherapy courses available, more effective medication and progress in reconstruction methods, immediate reconstruction is one of the options of first choice. As many women are extremely concerned by the prospect of physical disfigurement, more and more women are opting for primary reconstruction of the breast, which is carried out during the same operation. This immediate reconstruction of the breast means that the woman does not lose her femininity, and it has no disadvantages in terms of treatment or prognosis. Unlike in the past, chemotherapy and radiotherapy are now possible immediately following breast reconstruction. The advantages of immediate reconstruction are that only one operation and hospital stay are necessary and the patient achieves the treatment goal in a single step, which has a positive effect psychologically.

A more aesthetically pleasing result can be expected if the breast is reconstructed immediately. The costs are also lower. In addition, various studies have shown that, with immediate reconstruction, patients are more satisfied with the cosmetic result of the operation, feel more sexually attractive and have greater self-confidence compared to women who had a mastectomy without immediate breast reconstruction. Of course, any breast reconstruction is still only a substitute and will not be as sensitive as a natural breast.

Secondary reconstruction

Many patients only consider breast reconstruction at a later time, either through their own preference or because they did not have any information about the current options in onco-plastic surgery at the time of the disease. However, delayed breast reconstruction – also called secondary reconstruction – is still possible at a later stage. In contrast to immediate reconstruction, which takes place at the same time as the removal of the tumour, delayed reconstruction is associated with additional surgery. Depending on the situation, the aesthetic results are unfortunately not always comparable to those for an immediate reconstruction. Many women experience the restoration of their body image and the disappearance of the mastectomy scar as a great relief.

Reconstruction techniques

The technique used to reconstruct the breast depends on several factors: the extent of the disease, whether adequate soft tissue is present, or the shape of the healthy breast, for example. With an immediate reconstruction, a ‘skin-sparing’ mastectomy is carried out first. The breast tissue is removed through a small incision around the nipple, while the skin is retained entirely. A variety of techniques can then be used for immediate or delayed reconstructions. Significant progress has been made in recent years thanks to developments in microsurgery, particularly in reconstruction with the patient’s own tissue. While these techniques are somewhat more complex, they offer a natural and permanent alternative to previous reconstructions using implants.

Anaesthesia

A consultation with the anaesthetist is arranged as part of the preparation for surgery. Breast surgery can only be carried out under a general anaesthetic. However, current methods of anaesthesia are very safe and very well tolerated.

OVERVIEW OF RECONSTRUCTION OPTIONS:

- Expander/implant
- Implant with tissue matrix
- Back muscle with implant (latissimus dorsi)
- Own tissue from the abdomen (DIEP)
- Own tissue from buttock (SGAP)
- Own tissue from groin (TMG)
- Symmetrisation surgery
- Nipple reconstruction

See www.pyramide.ch for detailed descriptions and images

FOLLOW-UP CARE: IN THE BEST HANDS

Follow-up care begins after surgical removal of the tumour. Regular follow-up checks are an important way to evaluate the healing process.

Chemotherapy

The oncologist will decide on any necessary follow-up medication treatment based on the size of the tumour, age of the patient, condition of the underarm lymph nodes and biological and microscopic make-up of the tumour tissue. This may involve chemotherapy and/or a less arduous hormonal therapy. For very large tumours or in the rare case of inflammatory breast cancer, a course of medication may be necessary before the first operation, to reduce the size of the tumour before the surgery can go ahead. In most cases, a course of chemotherapy based on cytostatics is undertaken. Cytostatics stop the cancer cells from dividing and multiplying; thereby inhibiting the growth of the cancerous tumour, as the drugs destroy the malignant, fast-growing cells. Chemotherapy is normally used as a supplementary/post-operative treatment. The medication is administered for several days in a row. Then, after a break, a new treatment cycle commences. Normally several treatment cycles will be required. The course usually involves an individually determined combination of different substances.

Unfortunately, chemotherapy takes its toll on the body and is associated with some unpleasant side effects (hair loss, nausea, fatigue etc.).

Hormone therapy

Hormone therapy is used as a supplementary treatment for breast cancer and to treat metastasis. The aim is to inhibit the growth-promoting effect of the female hormone, oestrogen, on the cancer cells. Aromatase inhibitors are used to treat advanced tumour growth, including with metastases.

Radiotherapy

Any breast-conserving procedure necessarily includes local radiotherapy of the residual mammary gland and possibly the regional lymph nodes, depending on how far the tumour has spread. In rare cases and at an advanced stage of cancer, radiotherapy may also be carried out after a mastectomy. Radiotherapy takes a period of five weeks. During this time, clearly demarcated areas of skin undergo intensive radiation therapy for a few minutes at a time. This radiotherapy may cause some skin irritation.



CORRECTIVE PROCEDURES

The results of breast conservation surgery or a breast reconstruction do not always correspond to the patient's expectations. There may be various reasons for this: the shape of the breast may have changed over the years, there may have been a significant capsular contracture, or it may have been necessary to remove too much tissue as part of an earlier breast conservation therapy. These days, there are a number of corrective solutions for all these problems.

Implant replacement for capsular contracture

The insertion of an implant leads to a reaction to the foreign object and the formation of a thin capsule, which usually remains soft. However, in certain cases, particularly after radiotherapy, capsular contracture can occur. This is a capsule of tough, fibrous tissue that is sometimes painful, and is accompanied by significant deformation of the breast. The implant must be replaced and the capsule partially removed.

Replacement of the implant with the patient's own tissue

With significant, extensive capsular contracture, and if exchanging the implant has not already led to the desired improvement, replacing the implant with the patient's own tissue is an option. In this case, all of the methods for reconstruction with autologous tissue can be considered. The major advan-

tage of these techniques is that they provide a permanent result and no further surgery will be necessary.

Correction by injection of autologous fat

Following breast conservation therapy or breast reconstruction, the new breast can be affected by indentations, soft tissue defects or significant scar contraction. In these cases, the injection of autologous fat has been established as a very good method for correcting any unevenness. As with liposuction, fat is collected, prepared in a special process, and then injected at the appropriate point. In some cases it is necessary to repeat the procedure. However, this is a minimally invasive procedure with very high patient satisfaction.

PSYCHOLOGICAL SUPPORT

Following a diagnosis of breast cancer, almost all women affected have to face a multitude of frightening thoughts and feelings. Confirmation of the disease is often experienced as a massive blow. The woman's normal life and her future goals seem suddenly thrown into question. There is often a fear of returning to everyday life and a sudden lack of self-consciousness when dealing with other people. Doubt about the effectiveness of the treatment and fear of the disease spreading are frequently recurring feelings. It is common to experience periods of hopelessness and depression, but also moments of hope and an intense appreciation of life. Talking about the disease openly helps women come to terms with the situation.

The role of the woman's doctor is to accompany her through the treatment and to address her concerns. Family life may come under particular strain. It is not just the woman with breast cancer who is affected – everyone around her will be shaken by the diagnosis of cancer. Openly voicing any concerns and fears, expectations and wishes can open the way for problems to be solved together. Many patients also feel the need to meet with other women who are facing a similar experience.

Our centre works with experienced and sensitive psychologists and psychiatrists and can put you in touch with a suitable specialist upon request.

Working together with other specialists

An expert, interdisciplinary team is essential for successful breast cancer treatment: as well as the onco-plastic surgeon, professional specialist teams must also include radiologists, cytologists, pathologists, oncologists, radio-oncologists and psychologists. We work together in these areas with leading specialists from all over Switzerland, and will always welcome your gynaecologist to work with our team.

YOUR WELL-BEING IS OUR TOP PRIORITY

Our centre is located at the Pyramid Clinic, close to Zurich city centre. The prestigious Pyramid Clinic is a private clinic specialising in selected surgical fields, with approximately 120 staff and numerous fully accredited specialists. Our clinic's motto is 'excellence for you', because the Pyramid Clinic is not only known for its medical excellence and individual care and attention – it also offers exclusive infrastructure, outstanding hospitality and delicious cuisine.

Your surgery and clinic stay

Breast reconstruction surgery takes a number of hours. The operation is performed under general anaesthetic in the operating theatre at the Pyramid Clinic. After your surgery you will stay at the clinic for several days. While on the ward you will be expertly and attentively cared for by the clinic's nursing staff. All single and twin rooms are spacious and stylishly furnished and are equipped with modern multimedia terminals. You can also access our free Wi-Fi throughout the building. The bathrooms are designed with close attention to detail, ensuring that you feel more like a hotel guest than a patient.

Outpatient procedures

Minor corrective procedures can sometimes be carried out at our centre on an outpatient basis. In these cases, surgery is performed in the practice operating theatre. After a short period of recovery in the Day Clinic, you will be able to go home on the same day.

Costs

Treatment for breast cancer is covered by health insurance. However, we have learned from experience that there may in certain cases be problems with cost coverage by the insurance company if claims for subsequent reconstructive procedures or symmetrisation surgery on the opposite breast are rejected with the argument that it is a purely cosmetic treatment. Our doctors will of course advocate for you in these cases. Please note that the Pyramid Clinic does not have a general medical department, so for any inpatient treatments you will require supplementary private or semi-private hospital insurance, if all treatment costs are to be borne by the insurance company. Patients with general insurance can also be treated by us with a self-paying upgrade, which we calculate individually.

TEAM

At our Centre for Breast Cancer Surgery, you will find surgeons who have completed their specialist 'FMH' qualifications in Plastic, Reconstructive and Aesthetic Surgery and have many years of professional experience behind them. Our core competencies include breast surgery, onco-plastic surgery and microsurgery in particular. Plastic surgeons with specialist breast cancer expertise are acutely aware of the importance of leading-edge, strategically targeted treatment in the early stages of the disease and are also in a position to pay maximum attention to both the physical integrity and aesthetic concerns of the patient. Our doctors form a highly skilled and experienced team that is completely dedicated to your personal interests. Their work together provides for mutual support as well as cover during any absences. We believe that a plastic (i.e. onco-plastic) surgeon must be represented in

the core team for each breast cancer case. This is because gaining an opinion from a plastic surgeon before the first operation can often prevent unnecessary complications and inefficient medical processes. The team led by Dr Cédric A. George will apply their expertise to comprehensively address your individual concerns. We are also available at any time to offer advice or a second opinion.

Visit our new website and learn more about our specialists and their fields of activity: pyramide.ch/en/doctors

HOW TO FIND US

The Pyramid Clinic is at 34 Bellerivestrasse and is easy to reach by public transport. Take bus 33 or tram 2 or 4 to the Höschgasse stop and from there it is around a 5-minute walk towards the lake. Or take the Küssnacht/Zollikon bus to either the Höschgasse or the Elektrowatt stop, both of which are close to

the clinic. Our underground car park is available free of charge for all patients and visitors, and for arrivals or departures by car. You can register directly via the intercom at the entrance to the garage. We wish you a pleasant stay at the clinic.

