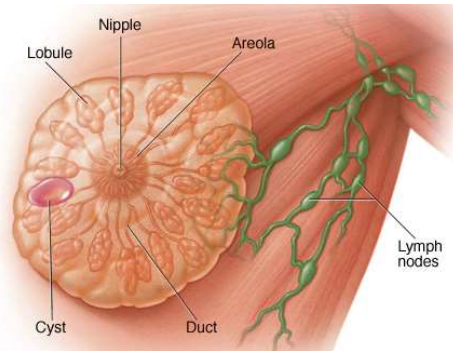


COMMON BREAST SURGERY PROCEDURES

- Surgical breast biopsy
- Surgery for breast cyst/abscess (including incision and drainage and excision of lactiferous ducts)
- Treatment for breast cancer (lumpectomy, partial mastectomy and full mastectomy)

In women, breasts are made up of milk glands. Inside the milk glands are lobules where milk is made and ducts where milk is carried to the nipples through tubes.

Like women, men also have breasts, however at the time of puberty the growth of the lobules are suppressed by the male hormone testosterone. Breasts contain fibrous tissue and fatty tissue which in some breasts extend into the armpit (axilla).



The armpits consist of a number of lymph nodes, also called lymph glands, and are part of the lymphatic system. Throughout your life, your breasts will change continuously from puberty, through adolescence, through childbearing years and then to menopause. These changes occur due to varying levels of the female hormones, oestrogen and progesterone, in your body which can cause the development of breast lumps.

Common breast surgery procedures performed include a surgical breast biopsy, surgery for breast cyst/abscess, including incision and drainage, as well as excision of lactiferous ducts, and treatment for breast cancer, lumpectomy, partial mastectomy and full mastectomy.

Surgical Breast Biopsy

A breast biopsy is usually done after a suspicious lesion is discovered on either Mammography or Ultrasound in order to get tissue for pathological diagnosis.

A breast biopsy provides a sample of tissue that doctors use to identify and diagnose abnormalities in the cells that make up breast lumps, other unusual breast changes or suspicious and concerning findings on a mammogram or ultrasound. The lab report from the breast biopsy can help determine whether you need additional surgery or other treatment.

There are different methods for doing this:

- Fine needle aspiration – A thin needle is inserted into the breast and used to take some cells from the breast lump or abnormal area. In some cases, an ultrasound is used to help guide the needle.
- Core biopsy – A needle a bit wider than the needle used for a fine needle aspiration is used to remove a small piece of the tissue, called a core, from the lump or abnormal area. This procedure is generally done under local anaesthetic so your breast will be numb.

- Surgical biopsy – In some cases, the lump may be too small to be biopsied using the above methods, so a surgical biopsy is needed. The procedure will be under general anaesthetic and your surgeon will remove the lump and a small area of normal breast tissue around the lump.

Breast Cyst/ Abscess

A breast cyst is a small, generally harmless fluid-filled sac that appears inside the breast tissue and can be identified by a physical examination and an ultrasound. There can be one or many cysts inside a woman's breast and they can vary in size. If a cyst is large enough or very bothersome, your doctor may choose to drain it by using ultrasound to guide a needle into the cyst, to extract the fluid which will remove the lump.

However, there is the possibility that drained cysts can refill and when this happens, you and your doctor may elect to have it removed surgically. A breast cyst is typically nothing more than a simple cyst, however, there may be a slightly elevated possibility for cancer when other risk factors, such as a strong family history, are present.

Breast Cancer (Lumpectomy & Mastectomy)

A breast cancer diagnosis is life changing. A/Prof Gabby Vasica is here to help answer any questions about your diagnosis whilst supporting you and your loved ones to make a more informed treatment decision. We encourage you to explore this area to learn more about the disease, your journey ahead and possible treatment options.

There is no 'one type' of breast cancer and this is why the treatment you receive for your breast cancer may be quite different to the treatment received by other women you could meet.

Breast cancer can develop when the cells lining the breast lobules or ducts grow abnormally or act in an uncontrolled way. In some cases, breast cancer can be found when it is still confined to the ducts or lobules of the breast and is known as pre-invasive breast cancer or non-invasive breast cancer. Breast cancers that are found when they are invasive mean that the abnormal cells inside the ducts or lobules have caused malignant growths to form and spread to other areas of the breast.

Non-invasive Breast Cancer

Non-invasive breast cancer is malignant growth/s that are still confined within the lobules or ducts of the breast and have not developed or spread to the healthy breast tissue. Non-invasive breast cancer is generally referred to as carcinoma in situ or pre-cancerous.

- **Ductal carcinoma in situ (DCIS)**
Ductal carcinoma in situ is the most common type of non-invasive breast cancer. Initially, it begins in the ducts of the breast and has not advanced or spread to any surrounding breast tissue. Although DCIS is non-life threatening, there is a great risk for further development into invasive breast cancer later in your life.

- [Lobular carcinoma in situ \(LCIS\)](#)

Lobular carcinoma in situ is non-invasive breast cancer that grows in the lobules within the breast and like ductal carcinoma in situ, has not spread into any surrounding breast tissue. LCIS is non-life threatening, however, can increase the risk of further development into invasive breast cancer later in your life.

Invasive Breast Cancer

Invasive breast cancer is identified when abnormal growths have developed beyond the lobules or ducts of the breast and have spread to the healthy breast tissue. Malignant cells can travel from the breasts to other areas of the body through the blood stream and lymphatic system. The first place that breast cancer is likely to spread to is the lymph nodes in the underarm area.

- [Invasive Ductal Carcinoma \(IDC\)](#)

Early invasive ductal carcinoma initiates in the milk ducts and has spread to surrounding healthy tissue. IDC that has invaded breast tissue may have also spread to one or more lymph nodes in the armpit through the lymphatic system. Prior to your procedure a lymphoscintigraphy scan can be performed to determine if any lymph nodes have become malignant. This will be discussed further with you at the time of your consultation.

- [Invasive Lobular Carcinoma \(ILC\)](#)

Early invasive lobular carcinoma begins in the lobules of the breast and has spread to surrounding healthy tissue. ILC that has invaded breast tissue may have also spread to one or more lymph nodes in the armpit through the lymphatic system. Prior to your procedure a lymphoscintigraphy scan can be performed to determine if any lymph nodes have become malignant. This will be discussed further with you at the time of your consultation.

- [Metastatic Breast Cancer](#)

Metastatic breast cancer, also known as Stage 4 breast cancer, indicates that the disease has spread to other distant parts of the body beyond the axillary lymph nodes in the armpit. This generally includes the lungs, liver, bowel, bones or brain. The aim of treatment for metastatic breast cancer is to control the growth and spread of the disease, whilst relieving symptoms and improving quality of life.

Pathology

- [Estrogen Receptor \(ER\) and Progesterone Receptor \(PR\)](#)

The breast cancer may be titled as estrogen receptor positive (ER+) if it has receptors for estrogen. This suggests that the cancer cells may receive signs from estrogen that could encourage their growth. Similarly, the cancer may be titled progesterone receptor positive (PR+) if it has progesterone receptors. Again, this means that the cancer cells may receive motions from progesterone that could stimulate their growth. Your surgeon will test for these hormone receptors as the results will indicate whether the cancer is likely to respond to hormone therapy or other treatments.

- **HER-2**
The HER-2 is a gene that can play a role in the development of breast cancer. This gene makes HER-2 proteins that are receptors on breast cells. These normally help control the healthy breast cell growth but in some breast cancers the HER-2 gene does not work correctly and can multiply causing the rapid expansion and growth of breast cells in an uncontrolled way. Your pathology report will include information about the HER-2 gene and whether or not it is playing a part in your cancer.
- **Triple Negative Breast Cancer**
Triple negative breast cancer is a type of breast cancer that does not have any of the three receptors - estrogen, progesterone and HER-2 receptors commonly known to fuel the growth of breast tumours.

Diagnosis and treatment

Types of Tests

- **Physical exam**
Your doctor will feel your breasts and the lymph nodes under your arms as well as take a full medical history and ask about your family history to determine what tests to order.
- **Mammogram and Ultrasound**
Your doctor will order you to have a mammogram and/or ultrasound of your breasts to determine if there are any changes in your breasts or any lumps too small to be felt through physical examination.
- **Biopsy**
Your doctor may suggest a biopsy if an abnormal area of tissue is found in your breast and will involve removing a small amount of breast tissue as previously discussed above.

Further tests to determine the extent of the cancer can include bloods, X-ray, CT scans, bone scans, PET scans and MRI scan.

Staging

Staging involves evaluating the size of the breast cancer. The additional tests described above will help assess what stage the breast cancer is at or if it has spread to other sites of the body. This will help your doctor recommend the best treatment for you. Stages of breast cancer are numbered from I to IV which indicates the size of the tumour.

- **Stage 0** - This refers to pre-invasive cancer such as the ductal carcinoma in situ or lobular carcinoma in situ described under breast cancer.
- **Stage I** - The tumour is small, less than 2cm and has not spread to the lymph nodes.
- **Stage II** - The tumour is small, less than 2cm in diameter and has spread to the lymph nodes OR the tumour is larger, 2-5cm in diameter and has not spread to the lymph nodes.
- **Stage IIB (early)** - The tumour is 2-5cm in diameter and has spread to the lymph nodes.

- **Stage IIB (advanced)** - Stage III and Stage IV all refer to advanced breast cancer

Your cancer will also be given a grade according to how fast the cancer is growing. The grading categories of breast cancer are described below:

- **Grade 1, Low grade** - Cells look abnormal and are growing but not as fast as grade 2 growth rate.
- **Grade 2, Intermediate grade** - Cells look abnormal and are growing faster than grade 1 but not as fast as grade 3 growth rate.
- **Grade 3, High grade** - Abnormal cells have grown at a fast rate and do not represent the original normal breast cells.

Surgical procedures

There is no one type of treatment for every breast cancer. The treatment offered to you aims to remove the cancer, reduce the risk of the cancer spreading or controlling the spread whilst giving you the most optimal prognosis. The choice of treatment offered to you will depend on your test results, the severity of your symptoms as well as your age and general health. Your surgeon will suggest the most appropriate surgery to you which you can then take your time to consider and talk it over with your friends and family. The various types of surgery are outlined below:

- **Lumpectomy**
This is the most breast preserving surgery that is offered to women if the cancer is small compared to the size of their breast. A lumpectomy removes only the breast lump and some of the normal tissues surrounding it. These specimens will be sent for examination by pathology to determine if any cancerous cells are found in the edge of the tissue. If cancerous cells are found by the pathologist, the surgeon may need to remove some more tissue or conduct a mastectomy.
- **Mastectomy**
A mastectomy is usually recommended if the breast cancer is large compared to the size of the breast. A mastectomy will involve a unilateral mastectomy which is the removal of one breast or a bilateral mastectomy which is the removal of both breasts. You will have a stay in hospital and the length of this stay is dependent on each individual's situation. Every woman responds differently to a mastectomy but common side effects include:
 - Pain and/or discomfort in the breast and/or armpit while the wounds are healing
 - A collection of fluid may form in or around the scar of the breast or armpit which is called a seroma. These generally resolve on their own but in some cases may need to be drained.
- **Lymphoscintigraphy**
Lymphoscintigraphy is a nuclear medicine imaging technique that is used to capture an image of the lymphatic system in the body. This scan is particularly advantageous for patients who have been diagnosed with breast cancer as the lymphoscintigraphy shows the direction of lymph flow from the site of the cancer and also the closest and most important lymph nodes to the cancer – these are called sentinel lymph nodes. Before your surgery, a small amount of blue dye will be injected into your breast. This will help your surgeon to locate the sentinel node.

- [Sentinel Lymph Node Biopsy and axillary dissection](#)

A sentinel lymph node biopsy is a procedure that involves your surgeon removing the lymph node(s) in the armpit to which cancer cells are likely to spread to from the breast. After your surgeon removes the sentinel node(s), a pathologist will examine the node and determine if there are cancerous cells in the node. If cancerous cells are found then your surgeon may perform another procedure called an axillary dissection which involves the removal of more of the lymph nodes from the armpit to assess how many lymph nodes are affected.

[Support and helpful links & FAQ](#)

[What do I do if I find a lump in my breast?](#)

It is likely that at some point in a woman's life, a lump will be found in the breast. Generally these are breast cysts. However, if you find a lump that is irregular, slowly enlarging or new, you should contact your GP. In younger women, breasts can feel much lumpier around the time of the menstrual cycle. If a lump persists after a menstrual cycle, contact your GP. If you are an older woman, have gone through menopause and have found a lump then it is best to contact your GP as soon as possible.

[Are most breast lumps cancerous?](#)

Breasts with lumps are common and change with different times of the menstrual cycle. Most lumps found in breasts are just cysts which are a small, generally harmless fluid-filled sac. Any lump that you find is new or unusual should be checked by a GP.

[I have no family history of breast cancer, can I still get it?](#)

Every woman (and man) has a chance at developing breast cancer. Having a family history of breast cancer will put you in a higher category and chance at developing the disease.

[Is it always necessary to remove the breast if you are diagnosed with breast cancer?](#)

The treatment options available to each woman differentiate based on test results, personal history and general health. Not every case of breast cancer involves the removal of the breast. This will be determined based on your personal case.

[Is there any support for me with my newly diagnosed breast cancer?](#)

There are plenty of websites, foundations and support groups for women (and men) who have been diagnosed with breast cancer and are on their own personal journey. Some helpful websites with support information, groups and events are:

- <https://www.bcna.org.au/>
- <http://www.mcgrathfoundation.com.au/>
- <http://www.questforlife.com.au/>

[What about my partner, family members or friends?](#)

- <https://www.bcna.org.au/understanding-breast-cancer/talking-to-family-and-friends/>

[Our partnership with the McGrath Foundation:](#)

McGrath Breast Care Nurses are there for you when you need it most. Please see below the details of the Breast Care Clinical Nurse Consultant that is available to all of A/Prof Gabby Vasica's patients.

Elaine Arnold

Tel. 0436 013 999

elaine.arnold@healthscope.com.au

<https://www.mcgrathfoundation.com.au/>



Sydney General Surgeons

Suite 502/20 Bungan St, Mona Vale NSW 2103

Telephone 02 9997 7346 **Facsimile** 02 9979 7540

Email admin@sydneygeneralsurgeons.com.au **Website** sydneygeneralsurgeons.com.au

ABN 97 153 604 972