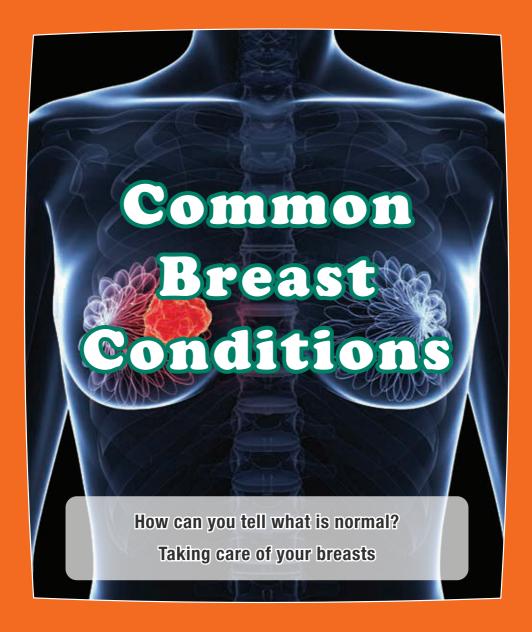
Inspired by Hope Committed to Care





Common Breast Conditions

Contents

Introduction	3
About your breasts	4
Common changes	5
How can you tell what is normal?	5
Taking care of your breasts	6
Common conditions	6
Breast Pain Fibrocystic Change Breast Cysts Fibroadenoma Mastitis Duct Ectasia Intraductal Papillomas Atypical Hyperplasia Lobular Carcinoma in Situ Gynaecomastia	8 9 10 11 13 14 15
Questions You Can Ask Your Doctor	18
Answers to Common Questions	19
Useful contact details	2
Cancer resources on the internet	2
Special thanks to the following people who have contributed to the	

development of this booklet:

Content:

Dr Yong Wei Sean | Deputy Head & Senior Consultant, Division of Surgery & Surgical Oncology, NCCS

Document No. CEIS-EDU-PEM-017/1023

Disclaimer

The National Cancer Centre Singapore does not endorse or promote the use of any product mentioned in this booklet. The information is presented in a summary to provide understanding and knowledge only. It does not recommend the self-management of health problems or replace consultation with your doctor. You should never disregard medical advice or delay seeking it because of something you have read here.

First edition June 2000, Revised October 2023,

Copyright © National Cancer Centre Singapore

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission from the publisher.

Introduction

Our breasts are significant for many different reasons. They way we feel about our breasts often influences how we feel about our own body image and ourselves.

Our breasts go through many changes during our lives. Most of these changes are quite normal and are due to the fluctuating levels of hormones in our bodies. These hormone levels alter during ovulation, menstruation, pregnancy and menopause.

As we age, our hormone levels gradually decrease and we may experience various changes in our breasts. These may include unusual pain, swelling, a lump or general 'lumpiness', nipple retraction, or even discharge from the nipple. Although most of these changes are benign (non-cancerous), they can make us very anxious and concerned. It is very important that these changes are thoroughly checked by a doctor.

We hope this booklet will answer some of the questions you may have about breast changes. If you find this booklet helpful, share it with your family and friends. And if you have any queries about the contents in this booklet or if there is any information you are seeking that is not covered here, please contact the Cancer Helpline at 6225 5655 for more information.

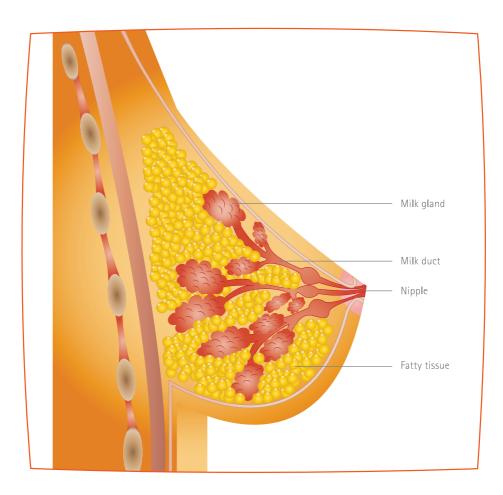
Other cancer information booklets are also available at the National Cancer Centre Singapore website. Contact the Cancer Helpline to request for a hardcopy of these booklets. For the electronic versions of this booklet and other booklets, please visit our website: www.nccs.com.sg or scan the following QR code.



ABOUT YOUR BREASTS

Your breasts are glandular organs designed to produce milk after pregnancy. Breast tissue extends downwards from the collarbone to the side of the body where the armpit is located. Breast tissue comprises a large number of special glands which produce milk after childbirth. The glands consist of milk sacs where milk is made, and ducts that carry the milk to the nipple. These milk glands are arranged in 15 to 20 lobes. The glands are surrounded by fibrous tissue that helps to give breasts their structure and shape.

Your breasts also contain blood vessels, lymph vessels, lymph glands and nerves. The lymph glands are connected by a system of lymph ducts to other lymph glands in your armpits. These lymph glands and ducts are part of the lymphatic system, which helps your body fight infection.



COMMON CHANGES

Your breasts go through many changes when you reach puberty and will continue to change as you get older. Initially, breasts are dense, glandular structures needed for producing milk, but gradually, they become less glandular and more fatty. By the time you reach menopause, your milk glands will have largely been replaced by fat. Thus, as you get older, your breasts will become softer and less lumpy.

Changes in your breasts also occur with your monthly periods (menstrual cycle). They may feel swollen, tender or lumpy just before your period. This is normal and is due to the body's response to changes in hormone levels. It is normal for breast tissue to grow a little and fill with fluid during the early part of the monthly cycle. The fluid is reabsorbed when your hormone level falls at the start of your period. These normal changes continue every month until you reach menopause.

HOW CAN YOU TELL WHAT IS NORMAL?

The best way to know your breasts and what changes are normal or abnormal is to regularly examine your own breasts. Women who practise breast self-examination (BSE) every month quickly become familiar with the normal look and feel of their breasts. They are then able to spot any unusual changes quite easily.

There are several ways of learning how to do BSE properly. You can ask your doctor to teach you, or you can learn it yourself by using BSE instruction pamphlets available from Singapore Cancer Society, Health Promotion Board, Breast Cancer Foundation and National Cancer Centre Singapore.

It is good practice to ask your doctor to examine your breasts regularly on an annual basis. Mammograms (breast X-rays) and breast ultrasound are also possible alternatives to discuss with your doctor. If you wish to have more information on mammograms, early detection and preventive actions, please contact the Cancer Helpline on tel: 6225 5655 or email: cancerhelpline@nccs.com.sq

A mammogram is a special X-ray of the breast, which uses low doses of radiation. Mammograms can be used to check healthy women for early signs of breast cancer before the woman herself is aware of any change or before a lump can be felt. These are called screening mammograms.

Women aged 40 to 49 years old who wish to go for screening mammograms, are advised to talk to their doctor about the benefits and limitations of mammograms. Women aged 50 years and above are encouraged to go for screening mammograms once every 2 years. You may scan the QR code (right) if you wish to book a mammogram appointment. Studies in the west have shown that breast cancer is more common in older women. Research has also proven that with well-coordinated programmes, screening mammograms can detect breast cancer early, resulting in reduction in the mortality rate from breast cancer.



While all women are at risk of developing breast cancer, the risk increases as we grow older. Breast tissue in younger women tends to be denser. This makes it more difficult to detect small changes in the breast. As there is no evidence that screening mammography benefits women under 40, this test is not recommended for women in this age group. However, if you experience some symptoms that you are worried about, please consult your doctor for advice. If there is strong family history of breast

cancer, especially at an early age, you can also consult your doctor or visit the Cancer Genetics Service at National Cancer Centre Singapore (NCCS) for advice.

To make an appointment, please call 6436 8088.

TAKING CARE OF YOUR BREASTS

- Examine your breasts monthly. Perform Breast Self-Examination (BSE) one week from the first day of your period. If you are no longer menstruating, choose a same date each month that is easy to remember.
- Report any breast changes to your doctor, for example: redness and swelling, presence of a lump, skin changes or discharges from the nipple.
- Have an annual breast examination by your doctor.
- Talk with your doctor about the benefits of breast screening.

COMMON CONDITIONS

Breast Pain

Breast pain can cause a lot of anxiety. Many women worry that they may have breast cancer. You may find it reassuring to know that breast pain alone is usually not a sign of breast cancer and does not increase your risk of breast cancer.

Breast pain is very common in women across all ages. Approximately two out of three pre-menopausal women (women who have not been through menopause) will experience breast pain at some point in their lives.

There are two main categories of breast pain:

- Breast pain that is part of a women's normal menstrual cycle is known as 'cyclical breast pain'.
 Women may experience it as discomfort and lumpiness in their breast a week or so before their period. The breast becomes tender and sore to the touch. The pain can also vary from mild to severe. It often goes away once the period starts.
- Some women have lasting pain in the breast that is not related to their menstrual cycle. The pain may be coming from elsewhere in the body. This is known as 'non-cyclical breast pain'.

Symptoms of Breast Pain

Cyclical breast pain

Cyclical breast pain is linked to changing hormone levels during the menstrual cycle, which mainly affects pre-menopausal women. These hormonal changes cause the breast tissues to be more sensitive, which can in turn, cause pain.

You may experience heaviness, tenderness, burning, prickling or stabbing pain, or feel tightness in the area. The pain can affect one or both breasts and can spread to the armpit, down the arm and to the shoulder blade. This type of pain usually stops when the ovaries become inactive after menopause.

However, women on **hormone replacement therapy (HRT)** after their menopause can also experience breast pain. This is because the HRT maintains some hormones at a pre-menopausal level.

Non-cyclical breast pain

There are two types of non-cyclical breast pain.

- True non-cyclical breast pain comes from the breast but is not linked to the menstrual cycle.
- Extra mammary or chest wall pain (known as musculoskeletal pain) is felt in the area of the breast but actually comes from elsewhere, such as the muscles, bones and joints.

Both types of non-cyclical breast pain can result in continuous pain or pain that comes from time to time and can affect women before and after menopause. The pain can be in one or both breasts and can affect the whole breast or a specific area. It may feel like a burning, prickling or stabbing pain, or tightness in the area. The pain may last from a few minutes up to a few days.

Seek medical attention if the pain is persistent and/ or associated with other breast symptoms such as a breast lump or skin changes etc.

Causes and Risk Factors of Breast Pain

Cyclical breast pain

Although cyclical breast pain is linked to the menstrual cycle, it can also be associated with taking contraceptive pills, certain anti-depressant drugs, or even stress.

Non-cyclical breast pain

It may be due to breast infection, previous breast surgery etc. However, in many cases, it is not entirely known what causes true non-cyclical breast pain that is not linked to the menstrual cycle.

Extra mammary or chest wall pain could be related to an underlying problem such as inflammation (swelling) of the chest wall, known as costochondritis which affects parts of the ribs. The pain could also be the result of underlying muscle injury, heart problem etc.

Diagnosis of Breast Pain

The diagnosis is reached after a detailed history and physical examination. Breast imaging may be required if there are other associated symptoms such as a breast lump etc.

Treatment of Breast Pain

If your breast pain is related to extra mammary or chest wall pain, the doctor will advise you on the treatment accordingly depending on its cause.

If there is an identifiable cause for the breast pain such as infection, appropriate treatment for the underlying cause will be given. If not, true non-cyclical breast pain with no attributable cause can be treated as for cyclical breast pain.

Treatment for cyclical breast pain

If you have cyclical breast pain, the pain that you are experiencing is part of your monthly cycle and is normal. The pain is usually self-limiting without need of further treatment. However, if the pain becomes unmanageable, some of the treatment options below may help:

- Changes in diet and lifestyle choices. For a start, your doctor may suggest simple things that you can do to help reduce the pain. These include reducing your intake of caffeine, while increasing the amount of fresh fruits and vegetables you eat and engaging in regular exercise to help maintain a healthy weight. You may also be advised to wear a supportive and correctly fitted bra.
- Some women have found relaxation therapy, such as listening to soothing music, useful in reducing the symptoms of cyclical breast pain. Other complementary therapies that promote wellbeing, such as acupuncture and aromatherapy, may also be helpful.
- If your pain started when you began taking a contraceptive pill, changing to a lower dosage pill or
 a different brand may help. If the pain continues, you may want to try non-hormonal methods of
 contraception such as condoms etc.
- A simple painkiller such as Paracetamol or Ibuprofen (either as a cream, gel or tablet) can help with pain relief.

Fibrocystic Change (FCC)

Fibrocystic change (FCC) of the breasts is the most common benign breast condition. These changes are normal and are not a disease.

More than 60 percent of women may experience fibrocystic changes. It occurs more frequently in women aged 30 to 50 years and resolves most often after menopause.

Symptoms of Fibrocystic Change

Breast pain and tender lumpiness are the commonest symptoms of fibrocystic change. The size of the breast lump or lumpiness may fluctuate especially from mid-cycle to just before the period.

Causes of Fibrocystic Change

Although the exact cause is not clear, hormonal imbalance, particularly oestrogen predominance over progesterone, seems to play an important role in its development. As hormonal levels may fluctuate during the menstrual cycle, the symptoms of fibrocystic changes may also fluctuate with breasts becoming lumpier, tender and sore just prior to menses.

Risk Factors of Fibrocystic Change

The risks may increase with:

- · Menstruation starting at an early age
- Having your first child at age 30 and older
- Never had a baby
- Infections

Diagnosis of Fibrocystic Change

Careful assessment of the history of the symptoms with a clinical breast examination, followed by mammograms and breast ultrasound may be indicated in some women. Occasionally, a biopsy of the breast tissue may be needed to ensure the symptoms of fibrocystic change are not due to a malignant condition

Treatment of Fibrocystic Change

Management of fibrocystic change includes:

- Using a supportive bra
- Taking analgesics e.g. Panadol, NSAIDs
- Some women have found avoiding caffeine and reducing salt intake helpful in relieving symptoms
 of fibrocystic change but studies have not shown any significant impact
- For women with painful breast cysts, this may be relieved by a fine needle aspiration to remove the cyst contents, otherwise management is largely expectant
- Vitamins and dietary supplements such as evening primrose oil and Vitamin E

Cancer Risk of Fibrocystic Change

Fibrocystic breasts without atypical proliferations (abnormal growth of cells) do not increase the risk of breast cancer.

Breast Cysts

Breast cysts occur when fluid-filled sacs develop in the breast. They develop naturally as the breast ages and changes.

Breast cysts are most common in women who have not reached menopause, although you can develop breast cysts at any age. Women who use hormone replacement therapy (HRT) after menopause may also develop cysts.

Developing one or more cysts, either in one breast or both breasts, is relatively common and there is nothing to worry about. Many women reportedly have cysts without knowing about them. Having a breast cyst does not increase your risk of developing breast cancer.

Symptoms of Breast Cysts

Cysts can present as lumps on the breast or they can sometimes be found by chance when you have a routine breast screening.

In some cases, the cysts can feel uncomfortable and even painful for some women. Before your period, cysts may also feel larger, sore and tender.

Causes and Risk Factors of Breast Cysts

The exact cause of breast cysts is unknown but it is likely related to the hormonal fluctuations.

Diagnosis of Breast Cysts

An ultrasound (which creates a picture of the breast using high-frequency sound waves) can be performed. In women aged 40 years old and above, a mammogram (breast X-ray) may be arranged too.

If the cyst is easily felt, your doctor may insert a fine needle into the lump to draw out (aspirate) the fluid to confirm the diagnosis.

Treatment of Breast Cysts

Most people who discover that they have breast cysts usually do not require any treatment or followup. Many cysts go away naturally.

However, if the cyst is large and causing discomfort, or does not go away on its own, your doctor may draw out the fluids using a fine needle. Once the fluid has been drained, the cyst usually disappears. You may feel some discomfort as the fluid is being drawn, and the area may feel bruised and tender for some days after. If so, painkillers such as Paracetamol can be taken.

The fluid drawn from the cyst can vary in appearance, from clear to a dark colour. Usually, it is only sent to a laboratory for testing if it is blood-stained, as this may indicate breast cancer.

Cysts can grow back or you may develop new cysts. If you think a cyst has returned or a new cyst has formed, please have it examined by a doctor.

In a minority of cases, the cyst may be cancerous, especially if there are sinister factors seen on ultrasound. In such cases, the doctor will advise you on the appropriate treatment.

Fibroadenoma

Fibroadenoma is the most common tumour of the breast. It occurs in 25 percent of asymptomatic women, usually with a peak incidence in early reproductive life between the ages of 15 and 35.

Fibroadenoma is conventionally regarded as a benign tumour of the breast, and is thought to represent a harmless overgrowth of breast tissue. It is hormone-dependent and may enlarge during pregnancy, and involutes (shrinks) with the rest of the breast after menopause.

Symptoms of Fibroadenoma

Fibroadenoma often presents as a painless, highly mobile, firm nodule within the breast. They may also be detected upon routine breast imaging i.e. mammography or ultrasound examination.

Causes & Risk Factors of Fibroadenoma

Fibroadenoma has no known risk factors and is thought to be caused by female hormones.

Diagnosis of Fibroadenoma

Clinical breast examination often reveals the characteristic 'breast mouse' which is a nodule that is very mobile within the breast. Mammograms and breast ultrasound are often used depending on the risks, and diagnosis can be confirmed by core needle biopsy or excision biopsy.

Treatment of Fibroadenoma

A fibroadenoma may be monitored for long-term stability or they may be removed by vacuum-assisted needle biopsy (VAB) or surgery.

It may be difficult to differentiate a large fibroadenoma from the phyllodes tumour, another type of breast tumour, based on ultrasound or even core needle biopsy. If the latter is suspected, surgical excision with a margin to completely remove the tumour is recommended.

Cancer Risk of Fibroadenoma

Simple fibroadenomas do not increase the risk of breast cancer.

Mastitis

Mastitis is usually an infection of the breast tissues. It is common in breastfeeding women. It can occur at any time during lactation but is more common in the first 3 months of lactation. About up to 10 percent of women who breastfeed may be affected.

Idiopathic Granulomatous Mastitis (IGM)

Women not lactating or breastfeeding can also get mastitis. In some of these women, the cause is unknown. This may be resolved with a course of antibiotics, but if IGM persists, it may become complicated and abscesses may result. Surgery to drain the infection and to obtain tissue for biopsy may be needed.

In some severe cases, steroid therapy may be considered if an infective cause is excluded.

Symptoms of Mastitis

Symptoms include:

- Breast pain
- Swelling
- Redness and warmth
- Development of a breast lump
- · Fever, chills and tiredness

How to Prevent Mastitis?

Women are encouraged to breastfeed frequently, especially when breasts feel engorged. Try to ensure that your baby latches on properly during feeding and allow the baby to finish feeding. Avoid pressure on the breasts e.g. tight bra/ clothing and adjust breastfeeding techniques to avoid breast engorgement.

Causes of Mastitis

This may be from a blocked milk duct, or bacteria that enters the breast through cracks or breaks in the skin or nipple.

Risk Factors of Mastitis

Mastitis is most often related to:

- Breastfeeding
- Sore or cracked nipples
- Using only one position to feed
- Wearing a tight bra that may restrict milk flow
- Mastitis not related to breastfeeding may be seen in women with diabetes mellitus

Diagnosis of Mastitis

Diagnosis is made on assessment of history and by clinical physical examination. Breast imaging such as breast ultrasound may be needed to assess for abscess formation (collection of pus material within the breast).

Mammograms are usually not needed and can be uncomfortable. A biopsy may be indicated if symptoms persist after a course of antibiotics.

Treatment of Mastitis

Antibiotics and pain relief are the main courses of treatment. Usually a course of oral antibiotics is sufficient. However, if the condition persists or worsens, intravenous antibiotics may be required. If it is not treated adequately, an abscess may form and this may require surgical drainage.

Cancer Risk of Mastitis

Mastitis does not increase the risk of breast cancer.

Duct Ectasia

In duct ectasia, there is a swelling of the milk ducts beneath the nipple and thickening of the walls of the milk ducts. The ducts are filled with fluid. It occurs mainly in perimenopausal women aged 40 to 50 years.

Symptoms of Duct Ectasia

Symptoms of duct ectasia include:

- Dirty white, greenish or blackish nipple discharge
- Tenderness and redness in the nipple and surrounding breast tissue
- Thickening near the clogged duct
- Inverted nipple
- Breast discomfort

Causes & Risk Factors of Duct Ectasia

It is speculated that duct ectasia may be caused by changes due to ageing, smoking and nipple inversion

Diagnosis of Duct Ectasia

Diagnosis of duct ectasia is based on clinical breast examination with ultrasound of the nipple and areola, and mammograms.

Treatment of Duct Ectasia

The treatment of duct ectasia is largely symptomatic but antibiotics and analgesics may be needed. Supportive management includes:

- Warm compresses to sooth the painful breast
- Breast pads to absorb the nipple discharge
- A good support bra to help minimise breast discomfort
- Sleeping on the opposite side to help prevent swelling and discomfort to the affected breast
- Stopping smoking
- Surgery, which may be considered to excise the affected duct

Cancer Risk of Duct Ectasia

Duct ectasia does not increase the risk of breast cancer.

Intraductal Papillomas

Intraductal papillomas are small, tiny wart-like growths in the breast's milk ducts and are non-cancerous. They are common between the ages of 35 and 55 years.

There are 3 types of papillomata:

- Solitary intraductal papilloma which can present as a single lump near the nipple can cause nipple discharge.
- **Multiple papillomas** may present as groups or clusters of small growths, farther away from the nipple and may not cause nipple discharge.
- Multiple papillomatosis are very small groups of cells inside the ducts and they are more scattered.

Risk Factors of Intraductal Papillomas

There are no known risk factors

Symptoms of Intraductal Papillomas

It may cause a nipple discharge. If it is near or beside the nipple, a small lump may be felt.

Diagnosis of Intraductal Papillomas

Diagnosis is made on clinical breast examination and breast imaging, including mammograms and breast ultrasound. Biopsy is usually recommended to confirm the diagnosis.

Treatment of Intraductal Papillomas

Surgery may be necessary to remove the papilloma and affected part of the milk duct. This is usually curative and presents a good outlook. Vacuum-assisted core needle biopsy (VAB) is an alternative option used for these lesions.

Atypical Hyperplasia

Atypical hyperplasia is an accumulation of abnormal cells in the breast and it is a risk factor for developing breast cancer.

Atypical ductal hyperplasia is caused by the accumulation of abnormal cells that are similar to the breast duct cells

Atypical lobular hyperplasia is caused by abnormal cells similar to the breast lobule cells.

Causes of Atypical Hyperplasia

There are no known causes.

Symptoms of Atypical Hyperplasia

Atypical hyperplasia is usually asymptomatic and may present as an abnormal finding, such as microcalcifications on mammograms, but it is most often discovered incidentally when biopsies are done for other findings.

Diagnosis of Atypical Hyperplasia

A biopsy of the abnormal area seen on mammogram may be recommended. This may be done using a needle biopsy or by open biopsy. An open biopsy allows more tissue to be examined and in about 25 percent of cases, an early cancer may be found.

Treatment of Atypical Hyperplasia

The main form of treatment is surgery and the removal of the abnormal area.

Cancer Risk of Atypical Hyperplasia

There is an increased risk of developing breast cancer in the future. It is about four times the lifetime risk.

At 5 years after the diagnosis of atypical hyperplasia, 7 percent of the women may develop breast cancer. At 10 years after the diagnosis, 13 percent may develop breast cancer and at 25 years after the diagnosis, about 30 percent may develop breast cancer.

The risk of cancer may be decreased by taking oral medications like Tamoxifen, Raloxifene, Aromatase Inhibitors and avoiding hormonal replacement therapy.

Follow-up Care for Atypical Hyperplasia

Women with atypical hyperplasia should continue with monthly breast self-examinations in order to detect any early breast changes as well as consider annual mammograms, in view of the increased risk.

Lobular Carcinoma in Situ

Lobular carcinoma in situ (LCIS) is caused by abnormal cells forming within the milk glands (lobules) in the breast. It is most common in women between the ages of 40 and 50. LCIS is not a cancer but it does increase the risk of developing breast cancer.

Symptoms of Lobular Carcinoma in Situ

Lobular carcinoma in situ (LCIS) by itself does not usually cause symptoms but it is usually diagnosed after a biopsy is done for some other reason. In more than 50 percent of cases, lobular carcinoma in situ may be multifocal, that is multiple lobules may have areas of abnormal cell growth.

Causes of Lobular Carcinoma in Situ

There are no known causes.

Risk Factors of Lobular Carcinoma in Situ

Risk factors include:

- A family history of breast cancer
- Taking hormonal replacement therapy (HRT) for menopause

Diagnosis of Lobular Carcinoma in Situ

Lobular carcinoma in situ (LCIS) is commonly an incidental finding on biopsy of the breast for another reason.

Treatment of Lobular Carcinoma in Situ

Management of Lobular Carcinoma in Situ includes:

- Close observation, e.g. clinical breast examinations, annual mammograms or MRI of the breasts.
- Chemoprevention, which is taking medication to reduce the risk of cancer. These drugs may include Tamoxifen or Raloxifene for 5 years.
- Surgery, where preventive or prophylactic mastectomy may be considered if there is a high risk based on a strong family history of breast cancer or if there is a BRCA gene mutation.

Cancer Risk of Lobular Carcinoma in Situ

There is an increase of 20 percent cancer risk over 15 years at the point of diagnosis.

Gynaecomastia

Gynaecomastia is the enlargement of male breast tissue. It is common in newborns, at puberty as well as in older men

There is growth of the male breast glands and not just the fat. It may occur in one or both breasts and it is a benign condition.

Symptoms of Gynaecomastia

This may present as a rubbery or firm mass that starts from underneath the nipple and then spreads outwards over the breast area. There may be discomfort or tenderness. It may occur in one or both breasts.

Causes & Risk Factors of Gynaecomastia

Gynaecomastia can be due to the imbalance of sex hormones, testosterone and oestrogen. Oestrogen is a female hormone that causes the breast tissue to grow. Men do produce some oestrogen but they usually have more testosterone which prevents the effects of oestrogen.

- Hormone imbalance in men can cause the breasts to grow.
- **Obesity** increases levels of oestrogen and is also a common cause for gynaecomastia.
- In newborn baby boys, oestrogen can pass through the placenta from the mother, but this is temporary and will disappear in a few weeks after birth.
- **During puberty**, hormone levels change and if the amount of testosterone drops, teenage boys can develop gynaecomastia. This usually clears up after their hormone levels stabilise and is uncommon beyond the age of 17 years.
- As men get older, they produce less testosterone and tend to have more fat and these can lead to excess breast tissue growth.
- **Medications** may sometimes cause gynaecomastia due to their side effects on the hormonal pathways. Common examples include:
 - o Some heart medications such as spironolactone, verapamil, nifedipine, enalapril, digoxin and amiodarone
 - o Antibiotics/ antifungals like ketoconazole, isoniazid and metronidazole
 - o Chemotherapy drugs like methotrexate and steroids
 - o Psychiatric medications like haloperidol, diazepam and tricyclic antidepressants
 - o Recreational drugs including alcohol, amphetamines and heroin
- Rarer conditions include tumours such as pituitary tumours in the brain, testicular tumours, lung, liver and kidney cancers, kidney, liver or thyroid disease or genetic causes such as Klinefelter syndrome.
- Sometimes, the cause is unknown.

Diagnosis of Gynaecomastia

A careful examination of your history including the use of medications is important in the diagnosis. Blood tests to exclude the rarer causes may be performed, and investigations may include mammograms and breast ultrasound if there is a suspicion of and to exclude breast cancer.

Treatment of Gynaecomastia

In general, treatment is not needed for most cases. If there is an underlying cause, treating the cause will decrease the breast enlargement. For men with gynaecomastia of unknown cause or have residual gynaecomastia after treatment of the cause, medical or surgical treatment may be considered.

Medical treatment includes drugs such as Clomiphene and Tamoxifen, which oppose the action of oestrogens. Up to 50 to 80 percent of patients have been reported to achieve partial reduction in breast size with these pharmacologic therapies.

Surgery can remove the amount of breast tissue and the various techniques include reduction mammoplasty, subcutaneous mastectomies with or without liposuction and microdebridement. In these surgeries, the breast is either partially or totally removed with the preservation of the nipple and overlying skin.

Cancer Risk of Gynaecomastia

There is no increased risk of breast cancer development in men with gynaecomastia, but the diagnosis of cancer needs to be excluded in their management.

QUESTIONS YOU CAN ASK YOUR DOCTOR

When you see your doctor. be specific about your concerns. For example, which part of the breast is affected, how long have you had the condition, is the lump there all the time? The following questions may help your discussion with your doctor:

About your illness

- 1. What do you think is causing my breast pain?
- 2. How can I manage my breast pain?
- 3. Do I need to see a breast specialist?
- 4. Am I at increased risk of breast cancer?
- 5. What can I do to reduce my risk of breast cancer?

About tests

- 1. What tests do I need to check a lump?
- 2. Do I need a mammogram?
- 3. What were the results of my tests?
- 4. Do I need more tests?



If you have other questions, you may want to add on to the list. Feel comfortable to ask the doctor to explain the answers to you again if you do not understand them. It is also useful to write down the points you have discussed to act as a reference and reminder when you need them.

ANSWERS TO COMMON QUESTIONS

Q. Are most breast lumps due to cancer?

A. Most lumps are benign and not cancerous. However, it is important to get them checked by a doctor if it is growing bigger, painful, hard, associated with skin changes or been present for more than a few weeks. Often your doctor will be able to assess the lump further with appropriate imaging to advise.

Q. What are the most common types of benign lumps?

A. The most common benign lumps are fibrocystic changes, breast cysts, and fibroadenomas. These are often described as benign, tiny, fluid-filled sacs that might feel like lumps. They might be hard or rubbery, and often fluctuate with the menstrual cycle. A woman can also have a single breast lump that might be large or small. These most often occur in women who are in their reproductive years.

Q. If I have a benign breast condition, am I more likely to get breast cancer?

A. Occasionally some women with particular benign breast conditions are slightly more at risk. However, you will need to talk this over with your doctor.

Q. Do benign conditions come back?

A. Generally no, but a small number of women will develop new benign lumps in the future.

Q. What should I do if I find a lump?

A. A lump in a pre-menopausal woman might be monitored for one to two months to see if it changes. It may be related to hormone fluctuations and the menstrual period. Any unexplained breast lump that persists should be checked by your doctor. Call and make an appointment.

Q. What if there is breast cancer in my family?

A. Women who have a strong family history, such as a mother and/ or sister who developed breast cancer before menopause may be at increased risk of breast cancer. If you are concerned about a family history of breast cancer, talk with your doctor. You may also want to consult a breast specialist.

Q. Can breast cancer be detected early?

A. Yes. Screening tests such as mammograms are used to detect early stage cancer even before people develop symptoms. Detecting cancer while it is still in the early stages allows for curative treatment and a better prognosis.

Q. What if the lump turns out to be cancer?

A. If breast cancer is detected early, it has a better chance of being cured. Your doctor will discuss the diagnosis and the best treatment options for you. Detecting breast cancer as early as possible improves the chances of treatment being successful. Following the guidelines of breast cancer screening improves the chances of cancer being diagnosed at an early stage and treated successfully. You can also call the Cancer Helpline at 6225 5655 for general information and counselling on breast cancer, as well as to find out the type of support services available.

Q. I have just had a mammogram and the specialist said it showed microcalcification. What does it mean?

A. A number of conditions can lead to traces of calcium forming in the tissues of the breast. Microcalcification are tiny specks of calcium, less than 1mm in size, which show up as bright white spots against the grey/ black background of the mammogram picture.

About 4 out of 10 breast cancers contain clusters of microcalcification. Microcalcification is even more common in the precancerous condition of ductal carcinoma-in-situ of the breast (DCIS) where it is seen in about three quarters of all cases. In mammograms, microcalcification may be the first sign that a cancer is present, with clusters of calcium specks showing up even though no lump is felt and the lump is not seen on the mammogram film. Microcalcification does also occur with a number of completely benign, noncancerous, breast conditions including fibroadenomas and papillomas. Very often the specialists can tell from the shape and pattern of the calcium specks whether or not a cancer is likely to be present. If there is any uncertainty your doctors will arrange a biopsy to get a definite answer.

Q. Will the biopsy scar be noticeable?

A. A biopsy scar is usually small and will be less noticeable as it fades with time. Some women are not worried about the scar while for others it may be more of a concern. If you need a biopsy, check with your surgeon beforehand about the likely size and position of the scar. Please check with your doctor before applying anything onto the area.

Q. Will I be able to breastfeed after a biopsy?

A. Yes. A biopsy will not interfere with your ability to breastfeed. Even if you need a biopsy while you are breastfeeding, you can still continue to do so after the procedure. Do discuss this with your doctor.

Q. What should I do if my doctor says my breast condtion is nothing to worry about but I still feel concerned?

A. If your doctor has suggested your condition is hormonal, you may wish to wait until your next period to see if it still persists. If it does or if you are still concerned, go back to your doctor or seek a second opinion. You can also call the Cancer Helpline on telephone 6225 5655 or email: cancerhelpline@nccs.com.sq

Q. What can I do for myself to continue good breast health?

- A. Perform a monthly breast self-examination.
 - Have a baseline mammogram by the age of 40, and then as recommended by your healthcare provider.
 - Have breast examinations by your health care provider at least once a year.
 - Keep track of your family health history.

USEFUL CONTACT DETAILS

General Enquiries : 6436 8000
 Cancer Helpline : 6225 5655
 Breast Screen Singapore Call Centre : 6536 6000



CANCER RESOURCES ON THE INTERNET

American Cancer Society www.cancer.org



Westmead Breast Cancer Institute www.bci.org.au



MD Anderson Cancer Centre www.mdanderson.org



Medline Plus www.medlineplus.gov



OncoLink www.oncolink.org



American Society of Clinical Oncology www.asco.org



Cancercare www.cancercare.org



National Cancer Institute www.cancer.gov



Susan G. Komen Breast Cancer Foundation www.komen.org







—



For more information on cancer, please call the

Cancer Helpline at Tel: 6225 5655 or email: cancerhelpline@nccs.com.sg

MONDAYS - FRIDAYS : 8.30am to 5.30pm

SATURDAYS, SUNDAYS : CLOSED (Please leave a message)

& PUBLIC HOLIDAY

Scan here for call back:



THIS IA A PUBLIC EDUCATION INITIATIVE BY:

Cancer Education & Information Services

Division of Supportive and Palliative Care National Cancer Centre Singapore 30 Hospital Boulevard

Singapore 168583

Tel: 6225 5655 Fax: 6683 6174 Website: www.nccs.com.sg Reg No. 199801562Z