

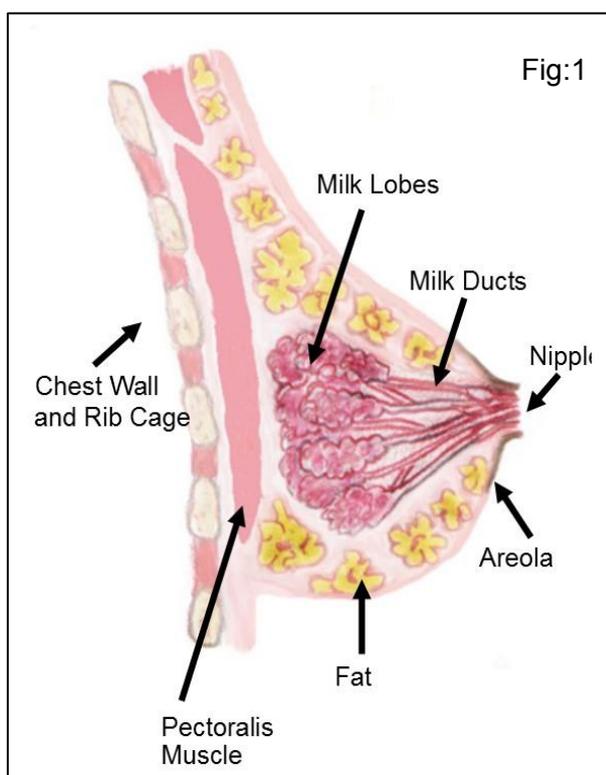
## Understanding breasts: structures and self-care

Yvette Jordan, UK Lymphology Clinics Training Director offers a guided tour to help you discover more about your breasts...

Breasts may attract a lot of attention, but natural hormonal and other changes can lead to them feeling uncomfortable and give rise to health worries. We can suffer soreness and swelling related to our monthly cycles, painful swelling during menopause, changes due to pregnancy and aging, mastitis and breast cancer. Despite their importance, for most of us, our breasts remain a mystery.

One in seven women in the UK will suffer breast cancer at some point in their lives. The risk for men seems to be increasing, but is around a hundred times lower. It is therefore essential that we understand the structure and the vital relationship between the breast and the lymphatic system in order to better look after ourselves.

### Development of the breast



By the time we are born, nipples and beginnings of the milk-duct system have formed. As we approach teen years, the ovaries start to produce and secrete oestrogen. Fat in the connective tissue starts to collect and the first visible signs of breast development begin. As the breasts enlarge and pubic hair develops, the milk duct system also starts to grow. We develop 15-24 milk lobes, which are responsible for milk production in late pregnancy and after childbirth.

The rate and development of the breasts differs widely, depending on factors such as fat deposits, hormonal changes and genetic factors and are not always the same size or shape. Once ovulation and menstruation begin, secretory glands are formed at the end of the milk ducts. In women, breast formation is complete within a year or two after the start of menstruation. The duct system continues to mature.

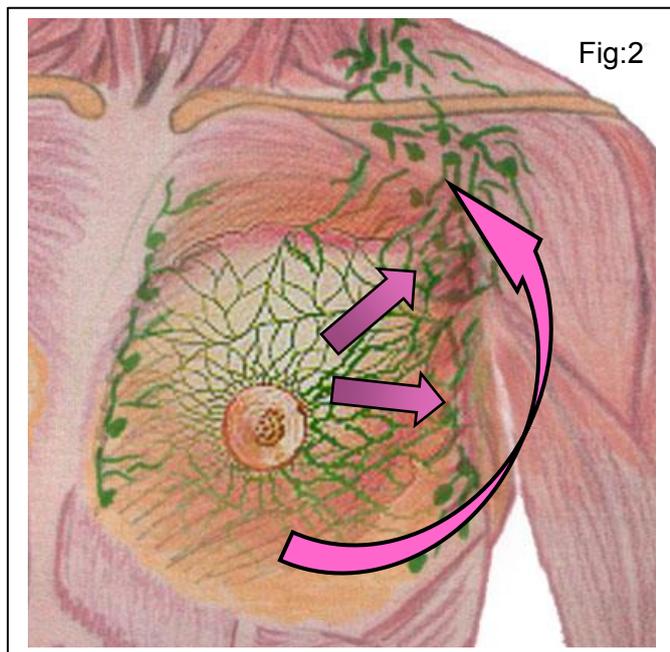
The breasts continue to change with menstruation, pregnancy and nursing causing further natural increases and decreases in breast size. As a woman ages, the fatty

tissue of the breasts may become more prominent than the glandular tissue, and the breasts may feel softer.

Starting around the age of 35 the mammary glands slowly start to shrink, and shrinkage of the milk ducts is the last major change that happens in the breast tissue. Finally breasts gradually atrophy after menopause along with the elongation of the shrunken milk ducts together with stretched lymphatic capillaries and vessels.

### The lymphatic system and breast anatomy

So, what effect does the lymphatic system have on our breasts? Cellular changes and renewal of cells are the



fastest in the breast than any other part of the body and this means the lymphatic system must work harder here to keep our breasts clean on the inside.

The lymphatic system of the breast starts as tiny blind-ended lymph capillaries directly underneath the skin and inside the breast next to each blood capillary. See FIG 2 & 3. Lymphatic capillaries need a pressure change to allow them to open and remove waste.

The capillaries become larger lymphatic vessels, and these are helped along the system by the lymph nodes which are around the side of the chest, underneath the armpit and up towards the base of the neck. Lymphatics are a one-way waste removal system and you can have over thirty lymph nodes in this area. Elsewhere in the body,

the lymph disposal system is subject to pressure changes because of muscle contraction but our breasts don't move and we don't tend to move them. This can lead to tight bras acting like a dam, restricting the flow of waste through the lymph system.

After ovulation, the milk ducts, shed cells which need to be taken away by the lymphatic system as they are metabolic waste. If the lymphatic system cannot remove waste or excess fluid, we often experience prolonged breast tenderness and discomfort. At the same time, hormonal changes cause breast swelling and inflammation. This can be relieved by massaging and helping the lymphatic system to remove excess waste fluid and making the breast more comfortable.

#### How can bras reduce the movement of fluid within the breast?

For many women, when we go without a bra, the tiny ducts are more vertical and elongated rather than horizontal. This influences our breasts overall, especially as ageing breast mass shrinks or when we are going through any changes such as menopause.

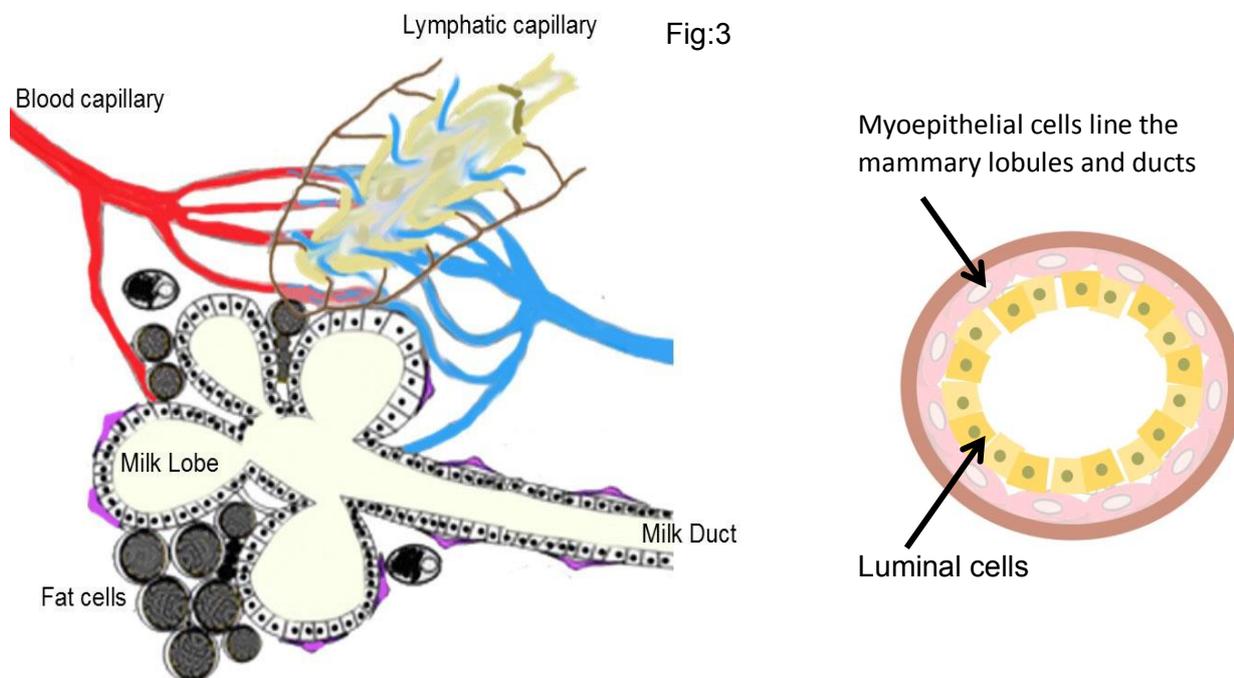
Few of us wear comfortable bras. Around 70% of us wear the wrong size and as our breasts change from day to day, we should have a range of sizes and styles to ensure comfort. Instead, our bras feel too big, too tight, ride up or dig into our shoulders. A bra that fitted perfectly at 7a.m. may be painful by evening. There is a reason for all the above. Fluid! Change your bra regularly, especially during periods or if you feel any inflammation within the breasts, or you start to feel them change.

Changing your bra regularly helps keep your breasts healthier and fluid flowing within the breast tissue. Lymphatic fluid needs to be kept moving away from inside the breast. Even if you do wear a tight or uncomfortable bra make sure you move the skin all over and around the breast or exercise by gripping hands together and pushing against each other to push up and flex your pectorals at the end of every day.

### Lymphatics and your naturally monthly cycle

The ovaries produce oestrogen during the first half of the menstrual cycle, which stimulates the growth of milk ducts in the breasts. The hormone progesterone takes over in the second half of the cycle which stimulates the formation of the milk glands. Progesterone is critical to female hormone balance, so it's important to keep our lymph moving freely, as it serves as a delivery system for progesterone, to balance out oestrogen. These hormones are responsible for the cyclical changes that many women feel in their breasts including swelling, pain, and soreness.

During menstruation, many women find their breasts feel lumpy. This is because the glands in the breast are enlarging to get ready for a possible pregnancy. If pregnancy does not happen, the breasts go back to normal size. Once menstruation starts, the cycle begins again. If the changes of the breast linger for much longer at the end of your cycle, or your breasts are more painful than normal it may be that the myoepithelial cells that line ducts are not functioning quite as they should.



Myoepithelial cells initiate the squeezing and contraction of the ducts and lobes at end of the monthly cycle and in pregnancy during lactation. Interestingly, as part of the structure of the ducts they are regarded as natural tumour suppressors because they stabilise the normal structure of the breasts. If pressure builds up within the breast caused by too tight a bra, or where the breast tissue is too dense, swollen and engorged, breasts will remain sore and painful for longer periods than they really need to. Similarly, underperforming myoepithelial cells can result in weak lactation, leading to the development of mastitis or blocked ducts from lack of movement of the breast tissue and lymphatic system. Natural lymphatic drainage massage can help reduce mastitis symptoms and even increase milk production for a better feed for baby, as my clients have discovered.



Fig: 4

### **Just checking your breasts is not enough**

During perimenopause, the levels of oestrogen and progesterone begin to change. Oestrogen levels dramatically decrease leading to many symptoms commonly linked to menopause. Without oestrogen, the breast's connective tissue becomes dehydrated and is no longer elastic. The breast tissue and milk ducts shrink and lose shape. Sagginess means the milk ducts and associated lymphatic vessels become stretched and elongated and the breasts now need extra care.

### **How the most common breast cancer starts**

Figures from Cancer Research UK show that the most common breast cancer has risen by 186% since the 1990's and mainly occurs in women aged 59-69. Ductal carcinoma in situ (DCIS) is non-invasive breast cancer. DCIS isn't life-threatening but having DCIS can increase the risk of

developing an invasive breast cancer later.

Invasive ductal carcinoma (IDC) accounts for about 80% of all invasive breast cancers in women and 90% in men. Beginning in the cells of a milk duct, it then grows through the duct walls and into the surrounding breast tissue and then spreads towards the lymph nodes and is why they remove them if diagnosed with breast cancer.

### **Warning signs**

There are several warning signs you should check for and consult your GP about. It is better to get a professional opinion and have your fears allayed than to delay and have to deal with the consequences. No GP should make you feel you are wasting their time.

The lymphatic system is often involved in and affects most warning signs. Consult your GP if you experience any of the following.

- A lump or new pain in your breast or lumps under your arm
- Thickened breast skin or rash or redness on your breast
- Unnatural swelling in your breast
- Dimpling on your breast or the skin of your nipple
- Nipple pain, inverted nipple, nipple discharge
- Changes to your breast or nipple that are different from the ones you have with your period
- Note that men should also consult a GP should they encounter these signs.

### **Getting to know your breasts**

Our breasts let us know when things are not working as efficiently as they should, but we need to be more vigilant about watching for these early signs which can develop very slowly. Numerous things can affect our breasts daily: weight, stress, diet, underwear, time of the month, consumption of alcohol, excess consumption of fatty, salty foods and of course hormones. In addition, posture, heavy bag carrying, sleeping and working positions, sitting all day, not moving the muscles behind the breast, not lifting or moving the arms above the head or not doing upper body exercises and even wearing a tight bra all contribute towards a lack of waste fluid movement in the lymph capillaries. This can then fester away within the tiny ducts which over many, many years which can lead to stagnation of cells.

For healthy breasts, you must get up close and personal with them every single day. Really get to know your breasts - feeling, touching, massaging, moving or checking your breasts every day and getting to know their normal natural changes.

### **Daily TLC for breasts**

When you switch off the alarm off to wake up, it's check your breasts time! After completing the checks lying down, check again in the shower and standing up and bent over, before you put your bra on, it only takes seconds. Firstly, your nipples by gently squeezing them between your fingers to feel for any signs of pressure in them. Then cup each breast (depending on the size with one or both hands) and consider how they feel. Do they both feel the same as yesterday, does one feel bigger, smaller, firmer or swollen. If you grip or squeeze, is it more painful or are any of the following happening:

- Nipples swollen, harder or one more swollen, continuously pert or more tender than the other?
- Do the breasts feel swollen or naturally, firm or soft?
- Are they the same size or different?
- Do they regularly ache or feel tender anywhere around the armpit or breast when you squeeze them?
- Any unusual discomfort that has been there for more than two days?
- Is the left breast or nipple always bigger, more sore or swollen than the right? Breast cancer is 5-10% more breast cancer in the left breast.

If you suffer with swelling or discomfort or the above symptoms persist regularly, watch Breast Wise® and do this every day for at least two weeks then a minimum of twice a week and just get into the habit of moving and bathing breast tissue, especially at the end of the day when the breasts have been still inside the bra has been pressing on the ribs and skin.

### **Getting Breast Wise**

Nothing in life is ever guaranteed. We do not know our future or whether we will be the unlucky one in seven who develops breast cancer, or whether a cure will be found in the next few years. However, the occurrence of hormonally driven breast cancers is alarming and the density of the breast's influence on the progression and severity of breast cancer is now recognised. As obesity can cause dense, swollen breasts and is now recognised as a major contributory factor in breast cancer, so it makes good sense to take control of your own breast health.

Understanding your breast's anatomy and stimulating the lymphatic system to clean and remove toxic waste

inside is good health practice. Assist the natural contracting breast cells and help yourself reduce any constant discomfort you may suffer by keeping your 'pipes' cleaner inside and slow down natural stagnation which is not good for breasts.

To get to know your breasts every day, move them, love them and do Breast Wise® breast cleansing video routine regularly to improve their health. This free video on YouTube shows you a short self-lymphatic drainage massage. Clean lymph means healthy cells inside and a great win-win for healthier breasts of tomorrow. Think of your new breast health routine like cleaning your teeth - you don't think about doing it, you just do it!

You can find the Breast Wise® video here: **[www.theuklc.com](http://www.theuklc.com)**

Yvette Jordan, Lymphatic Specialist and Lymphoedema Therapist hopes to awaken a new interest and awareness for all clients, therapists and patients as she continually strives to help improve health and well-being through education and awareness of the lymphatic system. Find out more at [www.uklymphologyclinics.com](http://www.uklymphologyclinics.com)