

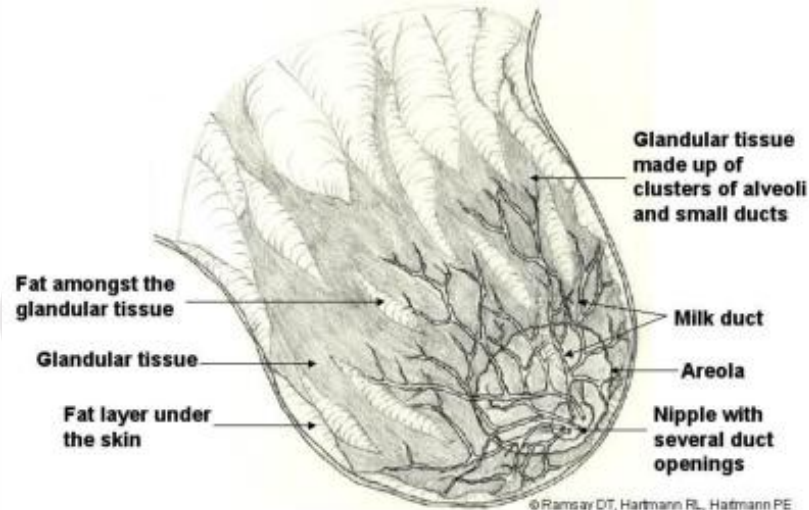
## BREAST FEEDING AND POST NATAL BREAST CARE

### HOW BREASTFEEDING WORKS

The breast is made of a network of ducts, fatty and glandular tissue containing small ducts and alveoli. The milk is produced within the alveoli. Recent research has shown the ducts to be quite close to the surface, about 2mm in diameter and easily compressed (Ramsay, et al, 2005).

Milk is produced by the glandular tissue contained within the fatty and fibrous supporting tissue of the breast. Prolactin is the hormone responsible for milk production. Small nerves in the areola, the coloured area surrounding the nipple, are stimulated as the baby suckles the nipple. This causes the release of the hormone prolactin which stimulates milk production.

ANATOMY OF THE HUMAN BREAST



The 'let-down reflex' gets the milk from the breast tissue to the nipple for the baby to drink. Nipple stimulation signals the brain to trigger the release of oxytocin. This hormone causes cells surrounding the alveoli in the glandular tissue to contract and release milk into the ducts. The milk is transported through the ducts to openings in the nipple. Oxytocin also stimulates the uterus and it is quite common to have uterine cramps and increased blood flow during or following breastfeeding in the first days and weeks after giving birth.

Babies suckle in a two phase pattern. As the baby starts to feed they suckle in a shallow and fast suck, suck pattern. This progresses to a deeper suck and swallow action as let-down occurs. The stimulation of the nipple triggers further oxytocin and prolactin to be released so further milk is produced and let down. In this way the more the baby suckles, the more milk you make, so supply usually equals demand.

### LEARNING TO BREASTFEED

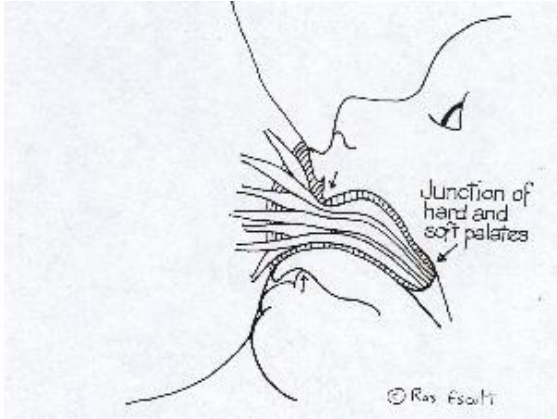
**BREASTFEEDING IS NOT EASY!!** It is a learnt skill and often does not come 'naturally'. Women in previous generations learnt to breastfeed by growing up watching the women in their family breastfeed. Now days, often the first time women are exposed to breastfeeding is when they first try it themselves. 49% of women have trouble breastfeeding on the day of delivery. Luckily this reduces to 15% a week later (Dewey et al, 2003). Many factors influence breastfeeding and attachment early on. Poor attachment and difficulty feeding is more likely if this is your first baby, have had a caesarean or have flat or inverted nipples (Dewey et al, 2003).

Successful breastfeeding is multifactorial. The position you hold the baby in, your, how the baby reacts and your level of anxiety all affect how feeding goes. Problems with breastfeeding can range from difficulty or painful attachment to engorgement, blocked ducts and mastitis.

When feeding your baby it is important to maintain a good posture. This positions your nipples straight ahead, which is easier for the baby to attach to. Bring the baby to your nipple height

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and prop up their weight with pillows or a 'brestfriend' support. You should not feel you are taking the weight of the baby in your arms; rather you are guiding the baby into the correct position. It is tempting to lean forward and drop your nipple into the baby's mouth. This is more difficult for the baby to attach to and feed from and can result in neck and back pain for you (just what a new mother does not need!).



The baby should have good hold of your areola and the nipple well within his mouth. The baby draws the nipple and breast tissue into his mouth a long way. His tongue comes forward over the gums and the bottom lip rolls out. It should feel comfortable if the baby is well attached. Poor attachment is painful due to abnormal pressure on the nipple which can cause cracking or open areas.

It is important to drain the whole breast when feeding. However it isn't always that easy! Ideally, as you feed the baby's suckling action will drain the whole breast. Holding the baby in the usual cradle hold and the under the arm 'football' hold helps fully drain the breast. You can also try side lying which is a nice position when you are exhausted as you can both have drift off to sleep!

It is a good idea to feel your breasts for lumps after each feed. Your breasts should be soft and relatively smooth. Regular checks allow you to 'get to know' your breasts and notice lumpy areas sooner rather than later.

## COMMON PROBLEMS AND PHYSIOTHERAPY MANAGEMENT

### ENGORGEMENT

Engorgement can occur when your milk comes in. This is uncomfortable swelling of your breasts that tends to happen between 2 to 4 days after delivery. The swelling may restrict the flow of milk by compressing the ducts. The breast may be very hard making it difficult for the baby to attach and feed well.

### PHYSIOTHERAPY MANAGEMENT

Engorgement is very uncomfortable but can be assisted by ultrasound performed by your physiotherapist over the engorged breast. Demand feeding and using heat just before feeding to help the milk flow, and cold between feeds to reduce swelling is helpful. Cabbage leaves are said to be comforting, especially if kept in the freezer and slipped into your maternity bra between feeds.

### BLOCKED DUCTS AND MASTITIS

Blocked ducts can occur whenever there is excessive compression of the ducts and restriction of milk flow. As the ducts are easily compressed, the compression does not need to be strong at all. The restricted milk can then 'set' and block the ducts. Any obstruction to normal breast drainage can be a factor in a blocked duct. This can include bruising or swelling, hurried feeds or poor positioning, poor attachment, nipple soreness, poor bra design and finger compression.

If blocked ducts are not cleared you may develop mastitis. This is an infection of the breast tissue and a hard lump can be felt. There can be tenderness, swelling and sometimes a red flare over the affected area of the breast. You may feel unwell or have a fever. Cracked nipples may give an inlet for bacteria to enter the breast tissue, although mastitis often occurs with intact nipples. The bacteria are often the same normal bacteria found in the baby's mouth. Left untreated, mastitis may become a breast abscess.

Strangely we find blocked ducts often occur more with weather changes, Friday afternoons, public holidays and when there is family coming to visit! So call if you think you are having problems sooner rather than later!

## PHYSIOTHERAPY MANAGEMENT

It is almost always ok for the baby to continue feeding, and usually it is beneficial for the mother, by helping clear the blocked area. Physiotherapy treatment consists of ultrasound and effleurage or draining massage to clear the ducts. If caught early enough this may clear the duct and prevent infection. However if you begin to feel unwell, have fevers or the blockages are failing to improve antibiotics may be needed. Antibiotics are also recommended if there is any pus in the expressed milk. It is usually safe to continue feeding with the antibiotics under direction from your doctor. A blocked duct can become mastitis within hours. If you can't clear a blockage yourself within 12 hours, seek help!

## HOW TO AVOID PROBLEMS

Milk flow can be restricted by a poorly fitting bra, poor positioning of you or the baby, compression from your fingers holding your breast too firmly or even sleeping on your stomach. A bump to the breast or the baby pulling at your breast can cause bruising and swelling which may restrict milk flow. Incomplete drainage from hurried feeds or too long between feeds can allow milk to collect and set in the ducts.

Picking a well fitting maternity bra is important. Maternity bras that have cups that don't completely drop down when you feed, but leave a triangle of fabric around the breast, can compress the breast and restrict milk flow. You may need a couple of different sized bras for days when you are fuller than others.

Positioning yourself and the baby during feeding is essential. You spend so long feeding throughout the day you need to do it in good posture for two reasons. Firstly it helps protect you from neck and back pain from prolonged poor positions, a very common complaint for new mothers. Secondly, poor positioning especially leaning down towards the baby can kink the easily compressed ducts in your breast, block milk flow and result in incomplete emptying of the breast. Using a commercial breast feeding pillow such as the 'Brestfriend' or a few pillows to lift the baby up to your level helps maintain a good breastfeeding position. This reduces the load on your neck and back and positions your nipple straight ahead which is easier for the baby to attach to. Some women are lucky and only need to feed in the 'cradle hold' position to drain their breast. Other women need to use a number of positions for effective drainage including the 'football hold' or side lying.

When feeding avoid pressing too firmly on your breast with your fingers when positioning your nipple. Lifting the baby up to your breast rather than leaning down to the baby helps reduce the need to direct the nipple towards the baby's mouth. If you still feel the need to direct your nipple, use only very gentle pressure.

Get to know your breasts, feel that they are soft and smooth after feeding –some women have naturally lumpy breasts- have any persistent lumps checked out. If you know what your breasts normally feel like after a feed, the quicker you'll pick up blocked ducts and other changes.

## WHAT TO DO IF YOU HAVE PROBLEMS

- Feed in a variety of positions
- Fully drain the blocked breast at each feed either by feeding or expressing
- Stand in the shower and express the lumpy blocked area and follow up with a feed
- If the blockage doesn't clear within 12 hours, seek help from your Physio, GP or Obstetrician
- ALWAYS GET PERSISTENT LUMPS CHECKED TO EXCLUDE CAUSES OTHER THAN BLOCKED DUCTS OR MASTITIS

## HOW WE CAN HELP

- Ultrasound and massage to unblock ducts
- Advice on positioning and posture during breastfeeding
- It's important you bring the baby with you for treatment if possible as the baby helps clear the blockage once the ultrasound and massage have loosened it.

For treatment of engorgement, blocked ducts or mastitis or advice and instruction in posture and successful attachment please call 02 9387 1011 to make an appointment with one of our Physiotherapists.

## REFERENCES

Ramsay DT, Kent JC, Hartmann RA and Hartmann PE (2005), 'Anatomy of the Lactating Human Breast Redefined With Ultrasound Imaging', *Journal of Anatomy*, 206 (6), pp 525-534.

Dewey KG, Nommsen-Rivers LA, Heinig MJ, Cohen RJ (2003), 'Risk factors for suboptimal infant breastfeeding behaviour, delayed onset of lactation, and excess neonatal weight loss', *Paediatrics*, Sep:112(3 Part 1):607-61.