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NUTRITION THROUGH THE LIFE COURSE: PART 2 - LACTATION

actation is the period following birth whereby ⊿milk is produced and secreted. During the later stages of pregnancy, the female©s body prepares itself for lactation by laying down fat. Those fat deposits laid down during pregnancy are used for future energy needs of the infant through breastfeeding.

In addition to the maternal fat stores being depleted, additional energy and nutrients are needed to meet the extra needs of the new infant through breastfeeding. It is important that lactating women eat a variety of nutritious foods. It is recommended that the lactating mother's food intake should be higher than it was in pregnancy. Breastmilk should be the only source of food for the infant for the first 6 months and therefore

the lactating mother requires an additional 550 calories per day. This additional energy can be obtained from a moderate increase in foods from all six groups used in the Caribbean. Lactating mothers who were anaemic during pregnancy should continue to take iron and folic acid tablets for the first six months of lactation.

Family support, care and encouragement are necessary during lactation because stress can decrease milk production which is vital for health of the infant.

Physiology of Lactation

During pregnancy the body prepares itself for lactation by the release of hormones which causes an increase in the size of the breasts. After birth, babys suckling is the stimulus production milk and secretion. Inside the breast are several small sacs of milk secreting cells known as alveoli. Suckling causes the nerves of the areola, which is the dark skin around the nipples, to send a message to the brain which stimulates the pituitary gland. In response, the hormones prolactin and oxytocin are released. Prolactin stimulates milk production causing the alveoli to produce milk, while oxytocin stimulates the milk ejection or let down reflex which causes the movement of milk from the alveoli to the larger ducts beneath the areola. A delay or decline in suckling can significantly affect milk production and milk ejection.





Breastmilk Composition

As a global public health recommendation the World Health Organisation states that infants should be exclusively breastfed for the first six months of life and thereafter should continue to receive breastmilk in addition to complementary foods for up to two years and beyond. Breastmilk supplies the correct balance of nutrients and energy that promotes the infants optimum growth, health and development.

Breastmilk is composed of fat, carbohydrate, protein, vitamins, minerals and water. Iron, zinc and fats in breastmilk are more readily absorbed than those in commercial infant formulas. Breastmilk also has a high concentration of essential fatty acids that are required for brain and eye development and for healthy blood vessels.

Breastmilk contains whey proteins which have anti-infective constituents such as lactoferrin, immunoglobin, lymphocytes, lysozyme, neutrophils and macrophages. These components are vital because they protect infants against infections when their immune systems are still immature.

Benefits of Breastfeeding

Breastfeeding offer several advantages for both mother and infant.

- Breastmilk contains all the nutrients and water that the infant requires for the first six months of the infant©s life.
- Breastmilk has anti-infective properties which protect the infant from several diseases caused by viruses and pathogenic bacteria.
- Breastmilk assists in brain development which makes the breastfed infant more intelligent.
- Breastfeeding provides the most convenient and cheapest way of feeding the infant. It requires no preparation and is always available.
- Breastfeeding assists mother to lose weight gained during pregnancy
- Breastmilk is always sterile unlike commercial infant formulas.
- Breastfeeding promotes the development of an emotional bond between mother and infant.
- Breastfeeding promotes correct development of the jaw and teeth and speech patterns in infants.
- Breastfeeding provides protection against the development of breast and ovarian cancer in the mother.

Guide for Healthy Eating

It is important that lactating mothers practice healthy eating

when they are breastfeeding. They should therefore try to:-

- Have three main meals and a snack between meals.
- Eat nutritious snacks such as yogurt, crackers and cheese, fresh fruit, nuts, breakfast cereals and milk.
- Eat high fibre foods such as wholegrain breads and cereals, fruits, vegetables, nuts, peas and beans.
- Choose fat reduced varieties of dairy products.
- Trim away all visible fat from meats before cooking.
- Broil, grill or roast meat and fish instead of frying.
- Do relaxing exercises such as taking baby for a walk.

Myths About Diet and Lactation

Myth 1: Mothers must be fixated about what she consumes: Most of the nutrients present in breastmilk are not directly influenced by the diet of the mother. However the amounts of vitamins A and C and the fatty acid composition of the mother's milk varies according to her dietary intake. Therefore the mother should eat a balanced, varied diet but does not need special foods or to avoid certain foods.

Myth 2: Mothers need to go on a specific diet to lose weight: Lactating mothers can lose body fat by carrying out exclusive breastfeeding for the first 6 months of the infant©s life

without restricting their food intake.

Myth 3: It is normal for *breastfeeding to be painful:* In the first few days some breastfeeding mothers may experience tenderness of the nipple. However this type of discomfort should not persist. Physical discomfort such as sore nipples and engorged breasts which cause breastfeeding to be painful can be prevented by the correct positioning and attachment of baby at the breast. An infant that is poorly attached to the breast may be suckling on the nipple to obtain milk. This damages the nipple skin and can cause cracks. Since the milk is not being effectively removed, this results in the breasts becoming engorged and painful. Mothers who experience constant pain and engorged breasts should consult a health care professional for assistance with positioning and attachment.

Myth 4. Infants should be placed on rigid feeding schedules: Infants should be fed on demand. Rigid feeding schedules are not encouraged as this can result in breast engorgement and a reduction in milk production.

Myth 5. Large breasts produce more milk than small breasts: It is the amount of fat and supporting tissue that surrounds the alveoli that varies between large and small breasts. Both types of breast contain the same amount of gland tissue and

can supply large amounts of milk to the infant.

Myth 6. Mothers should supplement breastfeeding before six months because they cannot produce enough milk to feed their infants: Almost all mothers can produce enough breastmilk for their infants. Common reasons why mothers terminate breastfeeding is due to ineffective suckling by the baby resulting in very frequent or very long breastfeeds, and infants not being satisfied after breastfeeds. Mothers experiencing these breastfeeding challenges need support and advice from health care professionals to effectively initiate and continue breastfeeding.

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