Clinical Pearls

How mothers produce breastmilk

Lactation is naturally controlled by a baby's needs and not breast size

Alveoli/Breast gland
Where the milk develops
The lactation cells that look like grapes produce breastmilk.

Milk (Lactiferous) ducts
Through which the breastmilk flows
Small muscle cells help move the breastmilk through the lactiferous ducts.

Nipple
Where the breastmilk is released
There are 4-18 pores in the nipple which the milk flows through.

Areola
The darker pigmented area of the breast
It is thought that this may serve as a target to help the baby locate the nipple.

Montgomery Glands
Oil producing glands situated on the areola
These oil producing glands discourage the growth of bacteria on the skin and nipple area.

Alveolus
Epithelial cells
Myoepithelial cells

Lansinoh

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Breastmilk Composition

Breastmilk contains all the nutrients that an infant needs in the first 6 months of life. It strengthens the infant's immune system to provide protection against infection.

Vitamins & Minerals
A,D,E,C, and B complex minerals - iron, zinc, calcium, sodium, chloride, magnesium, and selenium. Build strong bones, make red blood cells, keep muscles & nerves functioning properly.

Water 87%
hydration.

Immunological & growth factors
Immunoglobulins - antibodies to fight bacteria, viruses, fungus, and parasites. Secretory Immunoglobulin A (IgA) coats newborn's lungs and intestines to prevent germs from entering body and blood.

Hormones & Enzymes
Hormones for growth and development, metabolism, stress, pain, and blood pressure. i.e. (Oxytocin, prolactin), leptin protects baby against over eating. > 40 enzymes. Help digestion by breaking down fats or proteins, protect from germs and illness.

Protein & Amino Acids 1%
Whey, casein, and nucleotides to promote growth & development. HAMLET is a tumoricidal protein–lipid complex (α-lactalbumin & oleic acid) to protect against 40 types of cancer.

Fat 3-5%
Rich in omega 3s (DHA & AA) Rich in cholesterol, Triglycerides & complex lipids Automatically adjusts to infant's needs; Vital for growth, weight gain, brain development and vision.

Upto 15% stem cells
to create and repair the body.

Lactose 7%
Carbohydrates provide energy, especially for the developing brain. Helps maintain milk consistency, absorption of calcium human milk oligosaccharides (HMOs) to promote growth of beneficial gut bacteria .

Lansinoh®