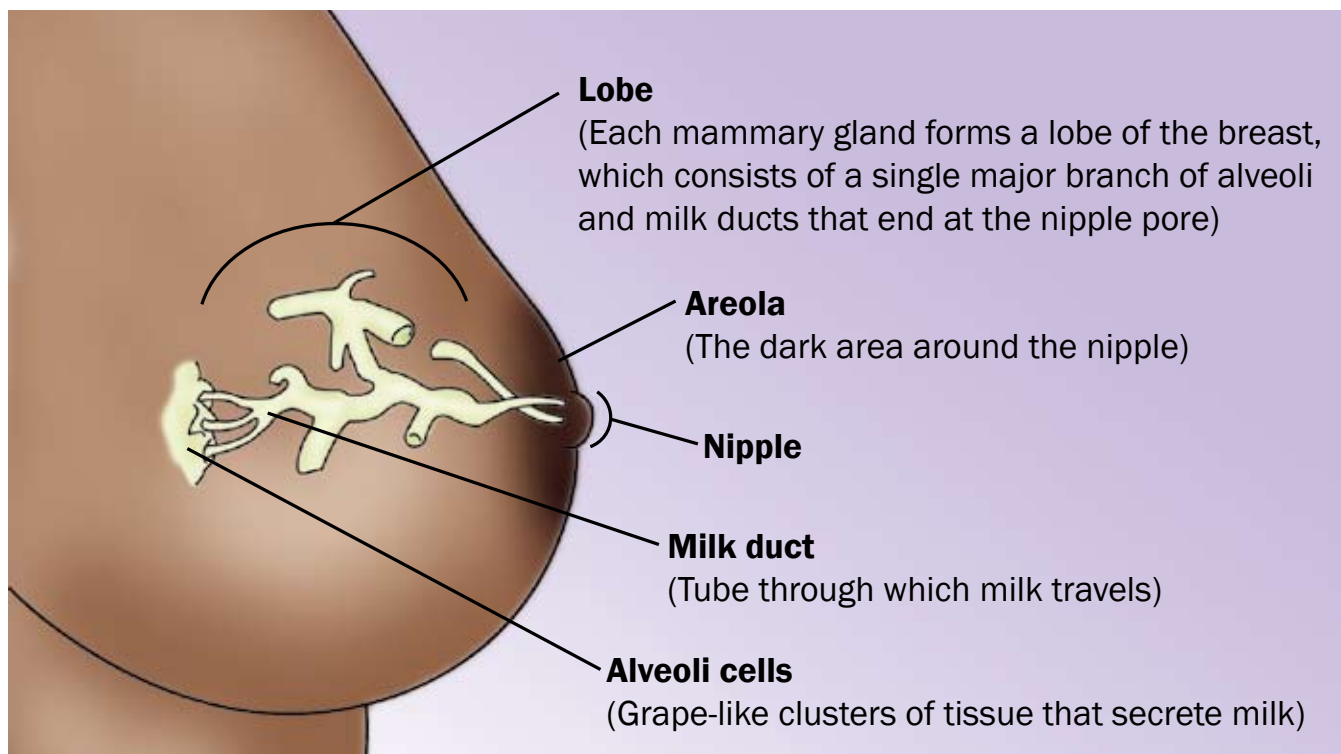


How Breast Milk Is Made

Knowing how the breast works to produce milk can help you understand the breastfeeding process. The breast itself is a gland that is made up of several parts, including:

- **Glandular tissue** – body tissue that makes and releases one or more substances for use in the body. Some glands make fluids that affect tissues or organs. Others make hormones or assist with blood production. In the breast, this tissue is involved in milk production.
- **Connective tissue** – a type of body tissue that supports other tissues and binds them together. This tissue provides support in the breast.
- **Blood** – fluid in the body made up of plasma, red and white blood cells, and platelets. Blood carries oxygen and nutrients to and waste materials away from all body tissues. In the breast, blood nourishes the breast tissue and provides nutrients needed for milk production.
- **Lymph** – the almost colorless fluid that travels through the lymphatic system and carries cells that help fight infection and disease. Lymph tissue in the breast helps remove waste.
- **Nerves** – cells that are the building blocks of the nervous system (the system that records and transmits information chemically and electrically within a person). Nerve tissue in the breast makes breasts sensitive to touch, allowing the baby's sucking to stimulate the let-down or milk-ejection reflex and milk production. (See **page 9** to learn how let-down works!)
- **Fatty tissue** – connective tissue that contains stored fat. It is also known as adipose tissue. Fatty tissue in the breast protects the breast from injury. Fatty tissue is what mostly affects the size of a woman's breast. Breast size does not have an effect on the amount of milk or the quality of milk a woman makes.





What is a let-down reflex?

A let-down reflex or milk ejection reflex is a conditioned reflex ejecting milk from the alveoli through the ducts to the sinuses of the breast and the nipple. (See the anatomy of the breast on **page 8**.) This reflex makes it easier to breastfeed your baby. Let-down happens a few seconds to several minutes after you start breastfeeding your baby. It can happen a few times during a feeding, too. You may feel a tingle in your breast or you may feel a little uncomfortable. Keep in mind that some women don't feel anything.

Let-down can happen at other times, too, such as when you hear your baby cry or when you may just be thinking about your baby. If your milk lets down as more of a gush and it bothers your baby, try expressing some milk by hand before you start breastfeeding.

Special cells inside your breasts make milk. These cells are called alveoli (al-VEE-uh-leye). When your breasts become fuller and tender during pregnancy, this is a sign that the alveoli are getting ready to work. Some women do not feel these changes in their breasts. Others may sense these changes after their baby is born.

The alveoli make milk in response to the hormone prolactin (proh-LAK-tin). Prolactin rises when the baby suckles. Another hormone, oxytocin (oks-ee-TOH-suhn), causes small muscles around the cells

to contract and move the milk through a series of small tubes called milk ducts. This moving of the milk is called let-down reflex.

Oxytocin also causes the muscles of the uterus to contract during and after birth. This helps the uterus to get back to its original size. It also lessens any bleeding a woman may have after giving birth. The release of both prolactin and oxytocin may be responsible in part for a mother's intense feeling of needing to be with her baby.