Clinical Pearls

Prolactin (luteotropic hormone), enables women to produce milk. Prolactin is secreted from the pituitary gland located at the base of the brain.

On the walls of the lactocytes (milk-producing cells of the alveoli) are prolactin receptor sites that allow the prolactin in the blood stream to stimulate the synthesis of breastmilk components.

*When the **alveolus is full of milk**, the walls expand/stretch and alter the shape of prolactin receptors so that prolactin cannot enter via those receptor sites – reducing the rate of milk synthesis.*

When a mother delivers her baby, and the placenta leaves her body, estrogen and progesterone levels decrease. These two hormones let prolactin levels increase and signal the milk-making glands in her breasts to produce breast milk.

***As milk empties** from the alveolus, increasing numbers of prolactin receptors return to their normal shape and allow prolactin to pass through – increasing the rate of milk synthesis.*

***Prolactin levels peak at night.** Night feeds are key to increasing milk supply in the first 6-8 weeks of breastfeeding.*

***The prolactin receptor** theory suggests that frequent milk removal in the early weeks will increase the number of receptor sites. More receptor sites means that more prolactin can pass into the lactocytes and thus milk production capability would be increased.*

***Touch** is important to stimulate prolactin release such as Skin-to-Skin contact and sucking.*

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