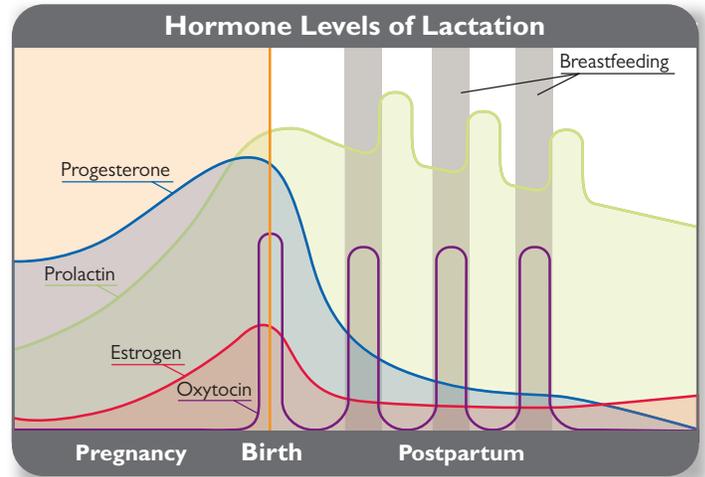


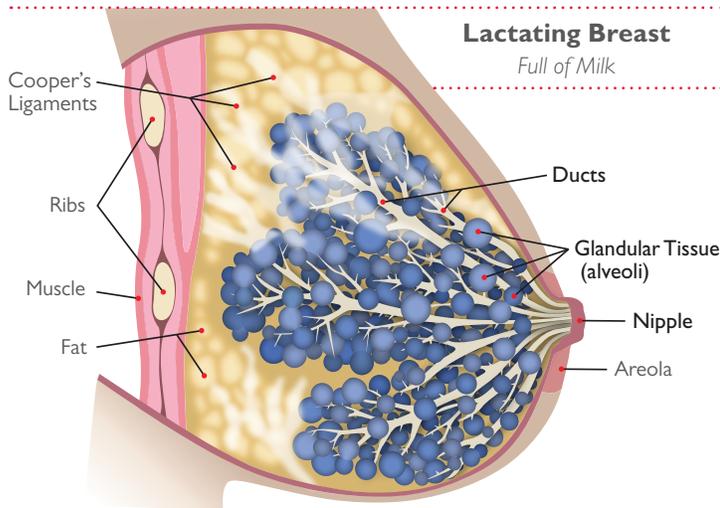
How Do My Breasts Make Milk?

QUESTION: When do my breasts start making milk?

ANSWER: A woman's breasts start getting ready to make milk when she becomes pregnant. Breast changes are caused by four main hormones. These hormones cause the ducts and glandular tissue (alveoli) to grow and increase in size. Your breasts start to make the first milk, colostrum, in the second trimester. Colostrum is thick and clear to yellow in color. Once your baby and the placenta are delivered, your body starts to make more milk. Over the next few days, the amount of milk your breasts make will increase and the color will change to appear more watery and white.



Adapted from Love, 1990



QUESTION: Can I help my breasts make milk?

ANSWER: Yes, there are four hormones that help your breasts make milk: estrogen, progesterone, prolactin and oxytocin. Your body naturally knows how to adjust the level of these hormones to help your breasts make milk, as seen in the drawing above. There are some things you can do to help your breasts make milk:

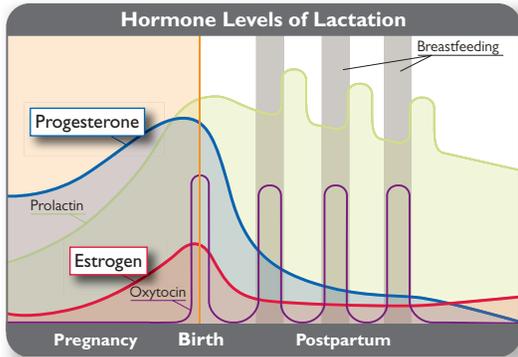
1. Breastfeed or pump within one hour of baby's birth.
2. Breastfeed or pump 8-10 times every 24 hours, about every 3 hours.
3. Massage and gently squeeze your breasts before and during breastfeeding or pumping.
4. If pumping, hand express afterwards for a few minutes to help drain your breasts of milk.

COLOSTRUM & MILK PRODUCTION (approximate times)

	Pregnancy		Birth	Postpartum		
	2nd trimester	3rd trimester	Birth	Postpartum days 2-4	Postpartum days 5-14	Postpartum day 14+
Colostrum	X	X	X	X		
Transitional Milk				X	X	
Mature Milk						X

QUESTION: What do estrogen and progesterone do?

ANSWER: Estrogen and progesterone prepare your breasts to make milk. These hormones are released by the placenta during pregnancy. They have two major roles. They increase the size and number of milk ducts in your breasts. They also keep your body from making large amounts of breast milk until after your baby is born. Once your baby is born and the placenta is

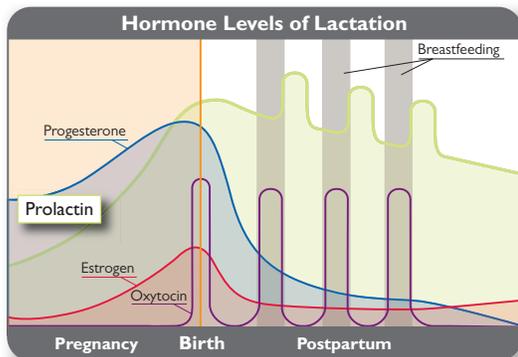


Adapted from Love, 1990

delivered, these hormones decrease. This decrease signals your body that it is time to make milk.

QUESTION: What does prolactin do?

ANSWER: Prolactin helps your breasts make milk. After the birth of your baby, prolactin levels increase. Every time you breastfeed or pump, your body releases prolactin. With each release, your body makes and stores more milk in the breast alveoli. If the level of this hormone gets too low, your milk supply will decrease.



Adapted from Love, 1990

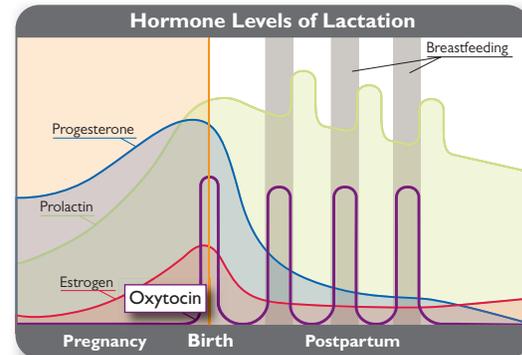
This is why it is important to breastfeed or pump right after delivery and then at regular time frames.



The four hormones that help your breasts make milk are: estrogen, progesterone, prolactin and oxytocin.

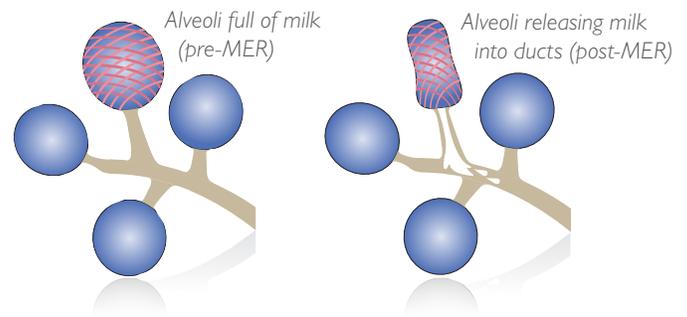
QUESTION: What does oxytocin do?

ANSWER: Oxytocin releases milk from your breasts. When your baby (or breast pump) begins to suck and draw your nipple into her mouth, this hormone is released. This release causes milk to be squeezed out of the alveoli, into the ducts and out of your nipple, into your baby's mouth. This process is called let-down or milk ejection reflex (MER).



Adapted from Love, 1990

Milk Ejection Reflex (MER)



References

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- Lawrence RA, Lawrence RM. *Breastfeeding: A Guide for the Medical Profession*. 7th ed. Maryland Heights, MO: Elsevier Mosby; 2011.
- Love SM, Lindsey K. *Dr. Susan Love's Breast Book*. 1st ed. MA: Addison-Wesley; 1990.
- Riordan J, Wambach K. *Breastfeeding and Human Lactation*. 4th ed. Sudbury, MA: Jones & Bartlett Publishers; 2010.

This is general information and does not replace the advice of your healthcare provider. If you have a problem you cannot solve quickly, seek help right away.

Every baby is different, if in doubt, contact your physician or other healthcare provider.