

Supplemental Nursing System



INCREASING BREASTFEEDING RATES AND MOTHER/INFANT BONDING IN THE HEALTH CARE SETTING

Supplemental Nursing System

- ▶ What is it?
- ▶ :The Supplemental Nursing System (SNS) consists of a container and a capillary tube leading from the container to the mother's nipple. The SNS container can be filled with fresh pumped breast milk, with fresh donor milk, with pasteurized donor milk, or, if no human milk is available, with infant formula.



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What physiologic effect does this device have on mothers to induce lactation?

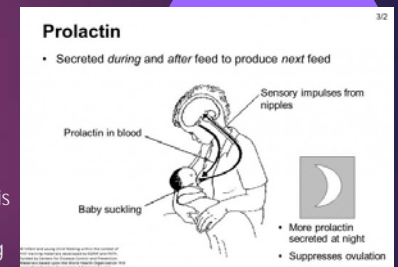
Stimulation techniques involve breast stimulation (non-pharmacological methods). Effects emotions, visual, olfactory, and auditory stimuli on prolactin secretion.

- ▶ **Prolactin** is the hormone that stimulates your breasts to make **milk** during and after pregnancy. Not being able to **breastfeed** due to low **milk supply** is often the biggest problem with having low **prolactin**, and is why many mothers seek remedies to **increase** their **prolactin level**.

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As an infant suckles on the breast sensory impulses from the nipples stimulate prolactin in the blood. This rise in this crucial hormone allows increase in milk production, along with oxytocin (the love hormone) bonding.

**Supplementation at the breast may be necessary due to unforeseen factors, however it is possible to provide that support to ease through this transition period and decrease breastfeeding dissatisfaction for mother and infant. **



Supplemental Nursing System – Who Qualifies?



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- ▶ Some circumstances that may affect a baby's latch including a
 - *prematurity (minimal fat pads in cheeks decrease suck stamina and ability)
- ▶ *Tongue Tie, posterior tongue tie, buccal tie,
- ▶ *cleft lip or palate
- ▶ *Down Syndrome (decreased stamina, tone, and oral abnormalities)
 - *mother adopting
- ▶ *a mother who has had previous breast-related surgeries, including augmentation, reduction, or removal of breast tissue for medical reasons
- ▶ * a mother who congenitally has insufficient glandular tissue, would also be an example of which an SNS would offer a positive breastfeeding option

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- ▶ https://www.youtube.com/watch?v=m4lt_Co1eBI
- ▶ What to look for:
- ▶ : **Proper latch-** it is imperative to first involve a board certified lactation consultant to assess latch, and education received by mother on what a nutritive latch, suck, swallow looks like. There should be no complaint of ANY pinching or burning while infant suckles
- ▶ : **Flow of supplement-** Given a proper latch the small silicone tube will go to the back of the palate with the nipple and flow of milk is determined by the suck of the infant.

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In 2017 Crouse Health trialed 25 infants with low blood glucose for various reasons (Infants of Diabetic Mother, Transient Tachypnea of the new born resolved, late preterm). The results showed stabilization of infant glucose and wean from IV within 24-48 hours.

Mothers milk increasing after each nutritive feeding. Patient satisfaction with their breastfeeding experience was demonstrated due to being able to bond and feed their baby while separated during their NICU stay and still establish a quality supply prior to discharge.



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Adoption

The physical connection of breastfeeding benefits both mother and child. ALL adoptions involve a loss for the child. Even a newborn infant who is placed right into the loving arms of his adoptive parents is being separated from the only mother he/she knows:



Research has shown breastfeeding to have positive psychological effects for mothers as well. One study compared mothers' moods when they alternately breastfed and bottle-fed mother's milk to their babies. The researchers found a correlation between breastfeeding and a positive mood immediately after breastfeeding, but the same effect was not apparent for bottle-feeding. The researchers suggested that the higher levels of the hormone oxytocin released by breastfeeding may have contributed to the positive mood (Mezzacappa and Katkin 2002). Bonding is a crucial aspect of adoption, and the hormones released during breastfeeding can facilitate that process.

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QUESTIONS?

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▶ References

- ▶ *Ruth A. Lawrence MD, Robert M. Lawrence MD, in [Breastfeeding \(Seventh Edition\)](#), 2011*
- ▶ *Adda Grimberg, Jessica Katz Kutikov, in [Fetal and Neonatal Physiology \(Fifth Edition\)](#), 2017*
- ▶ *Malcolm J. Low, in [Williams Textbook of Endocrinology \(Thirteenth Edition\)](#), 2016*
- ▶ *J.D. Carmichael, G.D. Braunstein, in [Hormones, Brain and Behavior \(Second Edition\)](#), 2009*