

MATURATION AND INFLUENCE ON S/S/B COORDINATION

The ability of an infant to breastfeed depends on the suck, swallow, and breathing coordination of the innate reflexes

Esophageal Peristalsis and swallowing has been seen in the fetus as early as 1week gestation.

Sucking has been described between 18-24 weeks.

Lactase, a brush border intestinal enzyme that digests lactose, is present at 24 weeks.

Lingual and gastric lipases are detectable at 26 weeks.

The gag reflex is seen in preterm babies of 26-27 weeks.

Rooting is seen around 32 weeks.

The coordination of suck, swallow, and breathe actions is seen at 32-35 weeks.

Some babies as young as 28 weeks are able to lick expressed milk from the mother's nipple.

At 28-30 weeks, some oral feeding might be possible at the breast or by cup.

From 32-34 weeks, some babies might be able to take a complete breastfeed once or twice a day.

From 35 weeks onward, efficient breastfeeding that maintains adequate growth is possible.

Pre-term infants are characterized by a weak suck, a lack of coordination between sucking,

swallowing, and breathing, a baby who tires easily, and a baby who has low muscle tone.

1. Immature suck pattern.

Three to five sucks per burst

A pause of equal duration, often detaching from the breast

2. Transitional suck pattern.

6 to 10 sucks per burst

Burst = pause duration with occasional detaching

An apneic episode can follow longer suck bursts

3. Mature suck pattern.

10-30 sucks per burst

Brief pauses

Suck/swallow = 1: 1 ratio

Disorganized sucking is a lack of rhythm of the total sucking activity.

Dysfunctional sucking is the interruption of the feeding process by abnormal movements of the tongue and jaw.

Non-nutritive sucking

Has a number of advantages including increasing the infant's weight gain linking a full stomach with the act of sucking and a soothing experience.

Non-nutritive sucking opportunities are at pacifier or an emptied breast during gavage

Rate of 2 sucks per second

Weak, uncoordinated flutter suck

Absence of swallow