

INTERVENTIONS FOR TRANSITION FROM ENTERAL TO ORAL FEEDING IN PRETERM INFANTS

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Preterm Infants: Preterm infants are defined as having been delivered prior to 38 weeks gestational age (GA). Infants born before reaching this gestational age may experience difficulty with feeding and swallowing.

Developmental Milestones:

Swallowing milestones in the developing fetus:

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|--|-------------|
| Swallowing first appears: | 13-16 weeks |
| Sucking begins: | 18 weeks |
| Upper and lower respiratory development begins: | 21-25 weeks |
| Lungs may mature enough to breathe air with difficulty: | 26-29 weeks |
| Ability to produce a coordinated suck-swallow-breathing pattern emerges: | 32-34 weeks |

Establishing a Nonnutritive Suck 30-34 weeks GA

1. Place a gloved finger or a pacifier in the infant's mouth
2. Press firmly 4-6 times (1-2 times per second) on the middle of the tongue
3. Pause to see if the infant continues unassisted sucking
4. Repeat as tolerated

(Hall, 2001)

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Oral Stimulation Program 26-29 weeks GA

| Structure | Stimulation steps | Purpose | Freq. | Duration |
|-------------------------------|--|---|---------------|----------|
| Cheek | 1. Place index finger at the base of the nose. 2. Compress the tissue, move finger toward the ear, then down and toward the corner of the lip (ie, C pattern). 3. Repeat for other side. | Improve range of motion and strength of cheeks, and improve lip seal. | 4x each cheek | 2 min |
| Upper lip | 1. Place index finger at the corner of the upper lip. 2. Compress the tissue. 3. Move the finger away in a circular motion, from the corner toward the center and to the other corner. 4. Reverse direction. | Improve lip range of motion and seal. | 4x | 1 min |
| Lower lip | 1. Place index finger at the corner of lower lip. 2. Compress the tissue. 3. Move the finger away in a circular motion, from the corner toward the center and to the other corner. 4. Reverse direction. | Improve lip range of motion and seal. | 4x | 1 min |
| Upper and lower lip curl | 1. Place index finger at center of lip 2. Apply sustained pressure, stretch downward toward the midline. 3. Repeat for lower lip-apply sustained pressure, and stretch upward toward the midline. | Improve lip strength, range of motion, and seal | 2x each lip | 1 min |
| Upper gum | 1. Place finger at the center of the gum, with firm sustained pressure slowly move toward the back of the mouth. 2. Return to the center of the mouth 3. Repeat for opposite side. | Improve range of motion of tongue, stimulate swallow, and improve suck. | 2x | 1 min |
| Lower gum | 1. Place finger at the center of the gum, with firm sustained pressure slowly move toward the back of the mouth. 2. 3. Repeat for opposite side. Return to the center of the mouth. | Improve range of motion of tongue, stimulate swallow, and improve suck. | 2x | 1 min |
| Internal cheek | 1. Place finger at inner corner of lips. 2. Compress the tissue, move back toward the molars and return to corner of lip. 3. Repeat for other side. | Improve cheek range of motion and lip seal. | 2x each cheek | 2 min |
| Lateral borders of the tongue | 1. Place finger at the level of the molar between the side blade of the tongue and the lower gum. 2. Move the finger toward midline, pushing the tongue towards the opposite direction. 3. Immediately move the finger all the way into the cheek, stretching it. | Improve tongue range of motion and strength | 2x each side | 1 min |
| Midblade of the tongue | 1. Place index at the center of the mouth. 2. Give sustained pressure into the hard palate for 3 seconds. 3. Move the finger down to contact the center blade of the tongue. 4. Displace the tongue downward with a firm pressure. 5. Immediately move the finger to contact the center of the mouth at the hard palate. | Improve tongue range of motion and strength, stimulate swallow, and improve suck. | 4x | 1 min |
| Elicit a suck | 1. Place finger at the midline, center of the palate, gently stroke the palate to elicit a suck. | Improve suck, and soft palate activation. | N/A | 1 min |
| Pacifier | 1. Place pacifier in mouth. | Improve suck, and soft palate activation | N/A | 3 min |

(Fucile, Gisel, and Lau, 2002)