

INTERVENTIONS TO SUPPORT HOMEOSTASIS DURING ORAL FEEDINGS WITH SOFFI™

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1

Part IV

Positioning Considerations



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2

2

Objectives

- Describe optimal alignment of head, body, extremities
- Discuss at least one benefit of side-lying positioning during feeding



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3

**Feeding
Fundamentals**

3

Positioning

- Support the motor system during bottle feeding by swaddling
- Bring body, extremities into flexion
- Keep body, head in alignment and midline
- Hold close to caregiver
- “No empty space”



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4

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4

Positioning

- Determine need to start with a special position based upon the history and stability of the infant
- Begin in cradle hold for more stable, more mature infants
- Change to cradle hold as tolerated, as needed
- Should allow for feeder to fully visualize face, mouth
- Should allow for interaction as tolerated
- Shoulders should be elevated compared to hips



Feeding
Fundamentals

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5

5

Special Positioning

- Should prevent fluid from collecting in pharynx
- Elevated Side-lying
 - Improves oxygenation during feedings
 - Does not increase length of stay
- Elevated upright position decreases apnea and bradycardia during feeding



Jones, 2008; Clark, 2007;
Jenni, 2007; Park, et al., 2014

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6

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6

Side-lying Positioning for Stability

n=80 (38 side-lying, 42 upright)

- Elevated side-lying (ESL) group ($p<.05$):
 - Higher SpO2 values
 - ESL: 96.77 +/- 2.51; ESU: 93.48 +/- 5.63
 - Lower heart rates
 - ESL: 155.87 +/- 11.18; ESU: 164.35 +/- 6.00
- Elevated supine group:
 - Oxygen saturation levels decreased more ($p<.01$)
 - Heart rates increased more ($p<.05$)

Girgin et al., 2018



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7

7

Preliminary Support...

- 4 studies met criteria for quasi-experimental or experimental design studying effect of positioning
 - 2 studies found side-lying position to support physiologic stability during feeding
 - 2 studies found no significant differences
 - “This finding should be interpreted cautiously because of various methodological weaknesses and limited generalizability”

Park, et al., 2018



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8

8

Side-lying Positioning Pilot

- n=6 infants, GA 29-33 5/7 weeks at birth, 33-36 weeks PMA
- No significant differences:
 - Oxygenation
 - Heartrates
 - Level of activity (dropped for both across feeding)
 - Duration of feeding
 - Trend towards fewer choking episodes, but not significant ($p=0.09$)
- Total volume consumed greater for Side-lying ($p=0.007$)



Raczynska & Gulczynska, 2019

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9

Why change to cradle hold

- Anecdotal evidence that “long term” sidelying is associated with facial asymmetry (no published evidence)
- Special positions affect parent-child interaction
- When an intervention is no longer needed, it should not be used
 - Homeostasis



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10

10

Change to cradle hold

Crossover trial of 25 infants

- Born <34 weeks PMA, ≥34 weeks PMA at study (mean age 37 weeks GA), eating ≥ two feeds/day
- No significant differences in the mean HR or number of episodes of bradycardia HR <100 bpm
- No difference in mean SpO₂ during feeds (p=.55)



Dawson, et al., 2013

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11

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11

Change to cradle hold

- No difference in number of episodes of SpO₂ <80% (p=.26)
 - 68% of infants in the cradle-hold position; 56% in side-lying
- Not significant, but a trend noted (p=.08)
 - 20% volume in the cradle-hold position; 25% in side-lying
- Not significant, but a trend noted (p=.09)
 - 27 minutes for a feeding in cradle-hold; 23 minutes in side-lying



Dawson, et al., 2013

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12

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12