Responsive feeding in infants

What is responsive feeding?

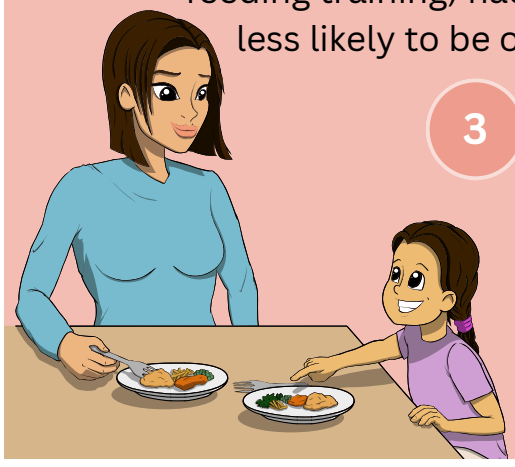
Responsive feeding is a practice that involves **recognizing a child's hunger and satiety cues and responding to them warmly and appropriately**. Responsive feeding promotes reciprocity between children and caregivers during feeding interactions and teaches children to eat based on their physiological and developmental needs.[1-3]

Non-responsive feeding styles are characterized by a **lack of reciprocity**, such as caregiver-led feeding (e.g., feeding on a schedule), controlling/pressuring feeding (e.g., encouraging bottle-emptying), or other styles like uninvolved or indulgent feeding that often present as a child ages. These styles can override a child's internal hunger signals and undermine their emerging autonomy.[1-3]

Benefits of responsive feeding

1. Responsive feeding helps **promote bonding** between infants and caregivers. When caregivers respond to their infant's cues, infants learn that their needs can be recognized and met. This helps infants feel secure and develop a trusting relationship with their caregivers.[2]

2. Responsive feeding can help **support optimal growth**.[4] Infants' appetites vary with their growth spurts; therefore, following an infant's hunger and fullness cues, rather than a schedule, can help ensure their physiological needs are met. A randomized clinical trial found that infants randomized to the responsive feeding group (as compared to the control group that received no responsive feeding training) had less rapid weight gain during the first 6 months and were less likely to be overweight at 1 year of age.[5]



3. Infants who are fed responsively **learn to self-regulate their hunger**[4] and to **eat autonomously**,[2] which can help them **develop healthy eating patterns** later in life. A national study in the US found that children were twice as likely to clean their plates at age 6 if they had been encouraged to empty their bottles as infants.[6]

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How to practice responsive feeding

Knowing how to **recognize an infant's hunger and satiety cues** is essential for practicing responsive feeding. You can share these tips for recognizing hunger and fullness with your patients:[7]

Common hunger cues (0-6 months):

- turning their head from side to side
- bringing their arms and legs close to their body
- sucking on their hands
- increasing their movements

Common satiety cues (0-6 months):

- closing their mouth
- relaxing their arms and legs
- turning their head away from the bottle
- closing their eyes, falling asleep

Late hunger cues in infants:

- becoming agitated
- crying

Feeding babies before these late cues can help avoid a frantic or fussy feed.

Infants who continue to be offered food when they've reached satiation may react by:

- pushing their caregiver away
- arching their back
- becoming agitated, and
- crying

Providing a **comfortable feeding environment** and **nurturing behaviours** for the infant are also important components of responsive feeding.[1] **During feeds, caregivers can**:

- make eye contact with their infant
- smile and change their facial expressions
- talk to their infant
- use gentle touch
- hum or sing to their infant

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Responsive feeding in Nova Scotia

The MAMA Lab at Mount Saint Vincent University recently assessed responsive feeding practices among caregivers in Nova Scotia by **video-recording feeding sessions** with infants aged 6-27 weeks. We included both mothers and other caregivers in this study, and all infants were consuming human milk, either from the breast or from a bottle. These feeding sessions were **scored using the Nursing Child Assessment Feeding Scale (NCAST)**.

Responsive feeding behaviours observed among these Nova Scotian dyads included:

- ideal positioning of trunk-to-trunk contact between caregivers and infants
- singing and positive communication during feeds
- caregivers providing soothing, non-verbal gestures
- caregivers responding to the sounds and movements of their infants throughout the feed

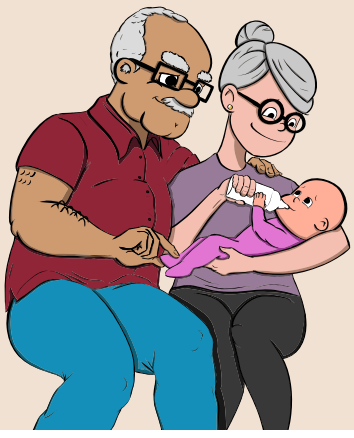
Non-responsive feeding behaviours observed among caregivers included:

Offering food when their infant was not ready to eat (e.g., chasing infant with bottle)

Looming over their infant during the feed (i.e., having their face <7 inches from their infant's face)

Using cues external to the infant to gauge their hunger (e.g., checking the amount of milk left in the bottle)

Feeding responsiveness was relatively high in the study sample. **The most responsive feeding practices were observed when mothers were breastfeeding**, followed by the same mothers bottle-feeding, and then by fathers/other caregivers bottle-feeding.[8]



With this, **there is room to improve responsive feeding among bottle-feeding caregivers** in Nova Scotia.

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1. Pérez-Escamilla et al. 2021 Curr. Dev. Nutr. 5:nzab076; **2.** Black et al. 2011 J. Nutr. 141 :490-494; **3.** Ventura 2022 Promoting Responsive Feeding During Breastfeeding, Bottle-Feeding, and the Introduction to Solid Foods, 43-56; **4.** Harbron et al. 2013 South Afr. J. Clin. Nutr. 26:S141–S149; **5.** Savage et al. 2016 JAMA Pediatr. 170:742-749; **6.** Li et al. 2014 Pediatrics 134 Suppl 1 :S70-77; **7.** Pérez-Escamilla et al. 2017, Durham, NC: Healthy Eating Research; **8.** Fry et al. 2022 ISRHML 21st International Conference