

# Feeding Challenges for Premature Infants

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*The National Coalition for Infant Health is a collaborative of more than 180 professional, clinical, community health, and family support organizations focused on improving the lives of premature infants through age two and their families. NCfIH's mission is to promote lifelong clinical, health, education, and supportive services needed by premature infants and their families. NCfIH prioritizes safety of this vulnerable population and access to approved therapies.*

One of every ten babies is born prematurely. (1) Many of these babies are temporarily fed through a feeding tube. But as development progresses, most babies transition to traditional oral feeding. This can mean feeding from their mother's breast or from a bottle. Making this leap is hard – for babies and their parents.

Learning to breastfeed or bottle feed may seem simple in comparison with other life-saving care delivered in the neonatal intensive care unit. For some babies, however, it can be a significant challenge. Doctors, nurses, neonatal therapists and lactation consultants all want premature babies to thrive with feeding so they can successfully transition home with their families.

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**Q: Which babies are most prone to feeding challenges?**

Babies who are born prematurely or at low birth weight are most prone to feeding challenges. Affectionately called, “immature feeders” by the clinical staff in neonatal intensive care units, these tiny infants may have to overcome several medical challenges before being ready to feed orally. These complications may include conditions such as pulmonary hypertension, chronic lung disease or heart conditions, which may require surgery.

While it is less common, late preterm infants and even some full-term infants can also have oral feeding challenges.

## Feeding Challenges for Premature Infants

**Q: What causes some babies to struggle with feeding?**

All of a baby's body systems are affected by being born prematurely. In addition to individual body systems not being ready for

feeding, premature babies may also have tubes in their mouth or nose. These tubes help babies breathe or eat. Moreover, they may be there for weeks or even months. Premature babies may also require repetitive nasal and oral suctioning. These negative sensory experiences, while necessary at the time, can cause babies to develop an aversion to anything coming near with their mouth. (2)

**Q: What is the long-term impact of having feeding challenges?**

Some babies who start out slowly grow to be excellent feeders with no long-term issues. Other babies, however, continue to have feeding challenges into childhood. Long-term feeding challenges can negatively affect growth and development. Forty percent of children followed in feeding clinics are former preterm infants. (3)

**Q: What are the impacts of delayed feeding from a breast or bottle on the baby and his or her family?**

Due to the coordination, maturity and physical endurance it requires, often feeding from a breast or bottle is what keeps premature babies hospitalized when they are otherwise ready to go home. (4) While many premature babies leave the hospital ahead of their expected due date, the discharge of an extremely low birth weight baby may not occur until after his or her original due date.

Some activities, and certainly the family dynamic, can be impacted by babies' feeding challenges. Even though a baby gains enough feeding competence to go home, he or she may not be strong enough feeders for parents to leave them in mainstream child care settings. These include daycares and the church or gym nursery.

**Q: What can parents do to support their baby with feeding?**

Research has shown that touch is essential for babies' physical and psychological development. (5) This concept also applies to feeding. Parents' presence with their premature baby has a significant impact on feeding readiness and success.

The goal of health care providers in neonatal intensive care units is to help parents become expert feeders of their baby. Parents will become more comfortable with their baby's feeding cues the more times they are present and with their baby during feeding.

**Q: How can neonatal intensive care unit leadership help promote oral feeding readiness in babies?**

Hospital leadership must ensure that their clinical staff members are knowledgeable in all elements of feeding. They should have policies that can increase babies' oral feeding readiness — offering a baby a pacifier and human touch during tube feedings, for example.

Clinical staff must also be experts in recognizing signs of readiness and assessing a baby's feeding quality once he or she begins oral feeding. Encouraging a baby to feed orally as soon as he or she shows maturity and readiness can help the baby successfully transition and be ready to go home sooner.

Finally, when possible, hospital staff should try to reduce obstacles that inhibit parents' presence for feedings. Likewise, parents should also seek resources to help them overcome obstacles, such as reliable transportation or care for other children who may not be allowed in the neonatal intensive care unit.

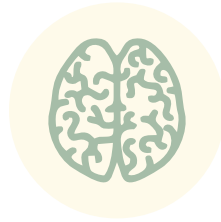
**Q: What are the financial and health system impacts of delayed oral feeding?**

Caring for premature babies is expensive, especially when their



## MUSCLE TONE & STRENGTH:

Feeding is hard work, and premature babies may lack the physical strength and endurance to do it multiple times a day. Sucking pads in the mouth, which help with suction during feeding, are not yet fully developed in premature babies.



## BRAIN DEVELOPMENT:

Timing sucking, swallowing and breathing requires coordination.<sup>2</sup> Premature babies' brain development may not be mature enough to successfully feed. It is, in fact, the first coordinated activity they must perform.



## IMMATURE LUNGS:

Oral feeding is taxing on the respiratory system. Every swallow comes with holding one's breath for a heartbeat. This makes feeding like aerobics for a premature baby.

hospital stay is prolonged because of oral feeding challenges. The average cost of a hospital stay for babies born between 34- and 36-weeks gestation is \$51,083. This amount increases for babies born before 32 weeks gestation. Their 46.2-day average length of stay costs more than \$280,000. (6)

These costs are shouldered by infants' families and health insurance systems. Medicaid, for example, paid \$695 million for hospital care of premature and low birth weight babies in 2013. (7)

The societal burden of prematurity is great too. Medical, educational and lost productivity costs associated with preterm birth in the United States cost an estimated \$26.2 billion in 2015. (8)

### Conclusion

Prematurity makes oral feeding significant work for babies. It can also be frustrating for parents who want their baby to "get it."

The clinicians caring for premature infants must have the proper training to ensure they are oral feeding experts who can guide parents along this journey properly. Further, neonatal intensive care units should promote policies that support parents and families of the babies in their care.

Engaged parents, expert clinicians and supportive policies provide the best opportunity for premature babies who struggle with oral feeding to successfully gain the ability, to the benefit of babies, their families, and the broader health care system.

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The authors have no relevant disclosures.

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**National Coalition for Infant Health Values (SANE)**

**Safety.** Premature infants are born vulnerable. Products, treatments and related public policies should prioritize these fragile infants' safety.

**Access.** Budget-driven health care policies should not preclude premature infants' access to preventative or necessary therapies.

**Nutrition.** Proper nutrition and full access to health care keep premature infants healthy after discharge from the NICU.

**Equality.** Prematurity and related vulnerabilities disproportionately impact minority and economically disadvantaged families. Restrictions on care and treatment should not worsen inherent disparities.



Protecting Access for Premature Infants through Age Two

A collaborative of professional, clinical, community health, and family support organizations improving the lives of premature infants and their families through education and advocacy.



**The National Coalition for Infant Health advocates for:**

- **Access to an exclusive human milk diet** for premature infants
- **Increased emotional support resources** for parents and caregivers suffering from PTSD/PPD
- **Access to RSV preventive treatment** for all premature infants as indicated on the FDA label
- **Clear, science-based nutrition guidelines** for pregnant and breastfeeding mothers
- **Safe, accurate medical devices** and products designed for the special needs of NICU patients



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