

# Advancing an Evidence-Based Approach to Newborn Feeding, Growth and Development

## Feeding Problems – Hospital Discharge Delay & Readmission Cost

### Early Readmission following NICU Discharges among a National Sample: Associated Factors and Spending

American Journal of Perinatology, 2023 Oct;40(13):1437-1445

### Inadequate oral feeding as a barrier to discharge in moderately preterm infants

Journal of Perinatology, 39:1219-1228, 2019

### Feeding Difficulties of Late and Moderate Preterm Infants: Evidence for Implementing nfant Feeding Solution

nfant whitepaper, 2017

## NICU Technology

### The Evidence Surrounding Recent Technologies in Neonatal Intensive Care Units to Assess and Treat Feeding Development in Premature Infants

Perspectives of the ASHA Special Interest Groups, SIG 13 3(4), 2018

### Technology – Considerations for the NICU of the Future

Newborn and Infant Nursing Reviews, 2016

## Foundational Work

### A comparison of the nutritive sucking performance of full term and preterm neonates at hospital discharge: A prospective cross-sectional study

Early Human Development, 134:26-30, 2019

### Comparison of tongue muscle characteristics of preterm and full-term infants during nutritive and nonnutritive sucking

Infant Behavior and Development, 37, 2014

### Measurement of infant tongue thickness using ultrasound: A technical note

Journal of Clinical Ultrasound, 2012

## Neonatal Feeding Screening and Development

A protocol for oral feeding progression for infants born less than 30 weeks postmenstrual age using infant technology

National Association of Neonatal Therapists Annual Conference, NANT 2021

Quantifying the impact of common feeding interventions on nutritive sucking performance using a commercially available smart bottle

Journal of Perinatal and Neonatal Nursing, 2019

Use of infant Feeding Systems Technology as adjunct to infant driven feedings for micropremies

National Association of Neonatal Therapists Annual Conference, 2019

Establishing the Evidence: Using objective metrics to support the transition to oral feeding infant, 2018

Machine learning techniques indicate relative risk for underlying post discharge feeding issues

Hot Topics in Neonatology Conference, 2017

Preliminary investigation of machine learning on neonatal ICU feeding transition

Southeastern Pediatric Research Conference, 2017

Measuring sucking performance to identify infants at risk: What Big Data can tell us

Southeastern Pediatric Research Conference, 2017

Objective assessment of a preterm infant's nutritive sucking from initiation of feeding through hospitalization and discharge

Neonatal Intensive Care, 29(1), 2016

## Quality Improvement

Effectiveness of a Novel Feeding Algorithm for Oral Feeding Transition of Infants Born Prematurely

Advances in Neonatal Care, 1;24(6):594-603, 2024

Real-time analysis of sucking waveforms to drive oral feeding practice and improve patient care outcomes

International Journal of Nursing and Health Care Research, 2021, 4(2) 2021. i.e. volume 4 issue 2, 2021

Know the Flow: Milk flow rates from bottle nipples used in the hospital and after discharge

Advances in Neonatal Care, 19(1):p 32-41, 2019

Caregiver education to advance the development of feeding skill in fragile infants

National Association of Neonatal Therapists Annual Conference, 2018

## Neurodevelopment Screening /Cerebral Palsy/HIE/NBI

Abnormal nutritive sucking as an indicator of neonatal brain injury

Frontiers in Pediatrics, 8(1), 2021

Nutritive sucking abnormalities and brain microstructural abnormalities in infants with established brain injury: a pilot study

Journal of Perinatology, 39, 1498-1508, 2019

Quantitative measures of nutritive sucking are associated with white matter tract integrity in newborns at high risk for neurological injury

Hot Topics in Neonatology Conference, 2018

**Quantitative assessment of nutritive sucking for early diagnosis of brain injury in high-risk infants**

Harvard Medical School, Boston Children's Hospital, 2018

**Exploring the Link Between Neonatal Brain Injury and Sucking: Early detection of injury leveraging emerging technologies**

Infant — Boston Children's Hospital & Harvard Medical School, white paper

**Association of Feeding with Functional and Structural Brain Abnormalities in Infants with Hypoxic Ischemic Encephalopathy**

American Academy for Cerebral Palsy and Developmental Medicine (AACPDM)

77th Annual Meeting, Chicago, IL

**Neonatal sucking as a predictor of neurodevelopmental outcomes at one year**

American Speech-Language-Hearing Association Annual Meeting. 2017

## Growth Trajectory

**Characterization of a Vigorous sucking style in early infancy and its predictive value for weight gain and eating behaviors at 12 months**

Appetite, 2023, Jun 1, 185, 2023

**Infant Sucking Behavior as a Predictor of Obesity Risk and Obesity-Promoting Eating Behaviors: How do Unique Infant Eating Behaviors Develop?** Infant — University of Michigan, white paper, 2019

## Ankyloglossia

**Objective improvement after frenotomy for posterior tongue-tie: A prospective randomized trial**

Otolaryngol Head Neck Surgery, 2021, 166(5):976-984, 2022

## Ongoing Work

**Predicting Outcomes of Surgical Intervention for Tongue-Tied Infants**

Current status: data analysis

**Objective Measure of Feeding Skill Progression for Tongue-Tied Infants**

Current status: data analysis

**Reliability and Accuracy of Volume Prediction for Infant Thrive Breast**

Infant, white paper, 2025