



Why is the study being done?

The overall goal of our research is to develop better nutritional strategies for preterm babies, particularly strategies that support the use of breast milk.

This study looks at how we fortify (add extra nutrition to) breast milk. Currently, we add a standard amount of extra nutrients to milk, and only increase it if a baby is not growing well. However, nutrients like protein and fat vary in breast milk from day to day.

We aim to learn whether individualized fortification is more effective than standard fortification in meeting the nutritional needs of babies in the NICU. We expect this individualized approach will lead to better growth in the NICU and better neurodevelopment once discharged!

We want to stay in touch!

We will continue to look at your baby's growth and development from discharge to 2 years old. We hope to see you at your NICU follow up visits!

Contact Information



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THE NOURISH STUDY



At Brigham and Women's Hospital, we are focused on research that may improve the healthy growth and development of children.

We are asking families like yours to participate in our research study and help us learn more about infant and child development.

Who is eligible to join?

Your baby may be eligible for the Nourish Study if he or she...

- was born at or after 24 weeks' and before 31 weeks' gestation,
- is in the NICU at Brigham & Women's Hospital,
- has no known major congenital anomalies,
- is not planning to transfer to another hospital,

And

- You are planning to provide breast milk for your baby and have consented to use donor milk if your own milk is in short supply

Participation in our research study is voluntary. If you choose not to enroll, it will not affect your or your baby's medical care.



How will the study work?

Milk Analysis and Fortification

- After you consent to be in the study, we will randomly assign your baby to standard or individualized fortification, like flipping a coin.
- Each day, we will take ~1 teaspoon of breast milk to analyze for its nutritional content and store for future research.
- If there is not enough maternal breast milk for your baby, we will supplement with donor milk.
- We will add standard breast milk fortifiers every day for **all** babies. This is the standard diet, which every baby in the NICU receives, regardless of study participation.
- Depending on the results of the breast milk analysis, babies in the individualized group may receive extra protein and/or fat to meet a target daily intake.
- Only the research assistant preparing the milk will know which study group your baby is in.
- After your baby's milk is fortified, it will be given to the your baby's nurse to feed to your baby.



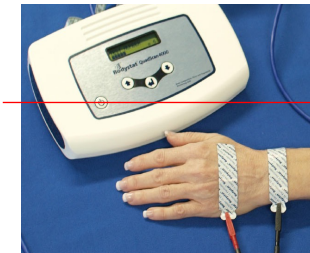
Breast milk analyzer

Infant Growth and Body Composition

- Our team will measure your baby's body composition up to 3 times. This measurement is done in the NICU using the PEA POD scale, which divides your baby's total weight into fat and fat-free mass. This takes about 5 minutes
- Another way we will measure this kind of body composition is with a bioelectrical impedance device (BIS)
- We will measure your baby's weight, length, and head circumference
- We will also collect clinical information from your baby's medical chart

Brain MRI

- Your baby will have a brain MRI at term equivalent age (close to your due date)
- A NICU nurse or doctor will be with your baby during the entire scan
- You can get the MRI report, if you'd like



Quadscan 4000 BIS (left), and the Pea Pod (right), located in the NICU, measures infant body composition