

Why measure infant body composition?

The goal of our research is to learn more about how babies grow and develop.

Some examples of how we may use information about a baby's body composition:

- ❖ To learn about how factors in pregnancy affect the growth of your baby
- ❖ To understand how a baby's diet affects his or her growth pattern
- ❖ To determine the balance of fat and lean mass that predicts better health and development later in childhood
- ❖ To see if and how body composition relates to brain growth and development



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Measuring Body Composition using the PEA POD for Newborn Research





What is a PEA POD?

- ❖ The PEA POD is a specialized scale that both weighs a baby and uses air displacement plethymography to determine the baby's body volume. These measurements allow us to calculate the baby's density and estimate the baby's body fat and lean body mass.
- ❖ The PEA POD is specially designed for infants weighing from 1 to 8 kg.
- ❖ The PEA POD is FDA-approved and used safely in the NICU at BWH and around the world.

What does the PEA POD involve?

- Your baby will be wheeled down the hall in an open crib with warm blankets to and from the PEA POD.
- Your baby will be weighed naked and then placed in a warmed chamber to determine his/her body composition (90 seconds).
- While in the chamber your baby will hear soft sounds, like a white noise machine.
- We will observe your baby through the window on the top of the chamber.
- The total time to complete the PEA POD is 3 to 5 minutes.
- If clinically indicated, we will place your baby on a wireless monitor for the test.

Frequently Asked Questions



When will the PEA POD be performed?

- Your baby will go in the PEA POD once he/she is clinically stable and able to breathe without any support.
- The PEA POD may be performed more than once, depending on the study protocol.

What are the risks of the PEA POD?

- There are no known health risks of the PEA POD.
- Your baby may experience mild discomfort, similar to when he/she is weighed on a regular hospital scale or during a diaper change.

Who will be with my baby?

- A health care provider and a member of the research team will monitor your baby for the duration of the PEA POD and can discontinue the test at any time, if needed.

Can you perform the PEA POD if my baby is on oxygen?

- If your baby is on “low flow” oxygen, a nurse or doctor will do an oxygen challenge test to determine if your baby can safely come off his/her oxygen to complete the PEA POD.
- If your baby's oxygen level remains within normal limits for 5 minutes, it is safe to complete the PEA POD (a 3-minute test).
- We will monitor your baby's oxygen saturation continuously during the PEA POD. If oxygen saturation drops, we will stop the test and place him/her back on oxygen.

Did you know?

Our team has safely completed over 200 NICU PEA POD measurements in the past five years.