When you and your baby first arrive in the neonatal intensive care unit (NICU), you may feel stressed by the equipment, tubing, monitors, and alarms in this area. These are the tools of the NICU that help meet the varied and special needs of premature and/or sick babies. To be an active partner in your baby’s care in the NICU, it helps to know a bit about these tools. Below is a description of the equipment that helps support the four main needs babies have to survive outside the mother’s womb: warmth, breathing, feeding, and blood flow.

**To help with warmth:** Babies whose bodies are able to keep warm can sleep in a regular open crib. Babies who have problems keeping warm are usually placed in one of these special beds:

- **A radiant warmer** is a bed that helps keep the baby’s body temperature regulated. A sensor placed on the baby’s stomach or chest keeps track of the baby’s body heat and signals the warmer to increase or decrease heat to the baby. The glass sides protect the baby from drafts. Because it is an open bed, it is normally used for babies who need more “hands-on” care.

- **An isolette** (also called an incubator) uses moist air to keep the baby warm. Since premature babies can lose moisture through their thin skin, water is added to the air to help prevent this. Like in the warmer, a sensor placed on the baby’s stomach adjusts the amount of heat provided. Because it is enclosed, an isolette also helps to protect the baby from noise, drafts, and germs.

**To track breathing and blood flow:** A monitor checks your baby’s vital signs at regular intervals and displays the results on a screen. Nurses and doctors check these screens to keep track of your baby’s vital signs. The monitors may be grouped into one large unit near your baby’s bed, or many smaller monitors placed near the bed. Each NICU varies, so ask the NICU staff if you have questions about these. The cardiorespiratory moni

“At first, the NICU made me nervous. I was afraid I would set off an alarm when I was near my baby.”

Gwen, mother
A pulse oximeter keeps track of the amount of oxygen in the baby’s blood. A small sensor placed on the baby’s hand or foot sends a beam of light through the baby’s skin to measure the oxygen. This is a painless method that helps doctors know how well the baby’s heart and lungs are working.

To help with breathing, feeding, blood flow, and medicines: Infusion pumps provide fluids, food, and medicines your baby may need. These pumps are set to provide a precise amount at the rate and time that meets your baby’s unique needs. A ventilator (also called a respirator) is used for babies who need help with breathing. There are many types of ventilators. Babies who cannot breathe on their own may need a machine that inflates their lungs. Babies who can breathe on their own but who still may need help, may have a machine that provides oxygen at a pressure that makes breathing easier. This treatment is called continuous positive airway pressure (CPAP).

Other tools
A phototherapy light (called a bili light) is used for babies who have too much bilirubin [bil-EE-roo-bin] in their blood (called jaundice). Untreated jaundice can cause serious problems, so this light is sometimes used to convert the bilirubin into a harmless substance. The baby’s eyes must be covered while under this light, but the light is not harmful.

What can parents do? As parents, you play a vital role in your baby’s care. Learning about the tools of the NICU is one way to take an active role in that care. Talk with your baby’s doctors and nurses about these tools. The equipment is complex, so ask questions until you feel you understand. Learning about your baby’s care may help you reduce the stress you may feel when your baby is in the NICU.

Take a closer look at these Pediatrix topics

- four main needs babies have - B1 - About premature babies
- jaundice - F10 - Jaundice

Ask Questions
In an area that is new to you, asking these questions can be helpful:
What is the main problem?
What do we need to do?
Why is it important to do this?

Source: Partnership for Clear Health Communication at the National Patient Safety Foundation
www.npsf.org/askme3

This information is for educational purposes only and is not intended to substitute for professional medical advice. Always consult with a health care professional if you have any questions about the health of your baby.