

Babies with health problems go to the Neonatal Intensive Care Unit (NICU). Babies in the NICU have 24-hour care from a team of experts. Having a baby in the NICU comes with many questions, uncertainty, emotions and can be one of the most stressful times in life. Each piece of equipment serves a particular purpose to help care for your baby. Having an idea of what the different equipment is used for can help alleviate some of the worries and help families feel more comfortable asking NICU providers questions.

Some equipment often used in the NICU:

**Monitors:**

Monitors are set to alarm if specific parameters are not met. Sometimes the baby's regular movement can trigger alarms. The baby's nurses are trained to look at the baby and the monitors to see if something is genuinely wrong.

* **Pulse oximeter (also called a pulse ox)** — A small device wrapped around your baby’s foot or hand that measures the oxygen in their blood. It helps providers know if your baby needs more or less oxygen. It doesn't cause your baby any pain.
* **Apnea monitor —** A machine detects when your baby stops breathing for a few seconds. An alarm lets NICU staff know your baby has stopped breathing.
* **Blood pressure monitor** — A machine connected to a small blood pressure cuff wrapped around your baby's arm or leg. Blood pressure is the force of blood that pushes against the walls of the arteries. The cuff takes your baby's blood pressure regularly and displays it on a screen.
* **Temperature probe —** This is typically a patch placed on the baby’s skin that records the baby's temperature on the monitor.
* **Cardiopulmonary monitor —** A machine that tracks your baby's heart and breathing rates. It's connected to your baby's chest with small sticky pads called leads. Information from the monitor displays on a screen and can be printed out. An alarm sounds if your baby's heart or breathing rate becomes too fast or too slow.

**Intravenous lines (IVs)**

Some babies may require medication or fluids to prevent dehydration and maintain blood pressure or nutrients. IVs are one of the quickest and most controlled ways to get fluids and medicines into the body.

* **Peripheral IV —** A short, thin line (tube) placed into one of the baby's veins, usually in the arms or legs. It can be used to give IV fluids, nutrition, and medications.
* **Arterial line —** A thin tube that goes into your baby’s artery to check his blood pressure and measure blood gases. An artery is a blood vessel that carries oxygen to all parts of your baby’s body. Blood pressure is the force of blood that pushes against the walls of the arteries. Blood gases are acid, oxygen, and carbon dioxide in your baby's blood.
* **Central line —** A small plastic tube that goes into a large blood vessel. Your baby gets medicine and fluids through the tube, and providers can draw blood out through the tube. One kind of central line used a lot is called a peripherally inserted central catheter (also called a PICC line).
* **Umbilical Venous Catheter (UVC) —** A small flexible line put into the umbilical vein through the umbilicus or "belly button ."This tube is sometimes used for blood samples but mainly to give IV fluid and medicine to the baby. Umbilical catheters are not painful to the baby. The main complications that can occur involve infection and bleeding. These happen rarely, and your baby's doctor or nurse can answer questions you may have about them.
* **Umbilical Artery Catheter (UAC) —** A small flexible line put into one of the two arteries in the baby's umbilicus or "belly button ."Blood samples can be taken from the line and tested to check the oxygen in the baby's blood. This helps to tell the doctors and nurses how well the baby's lungs are working to supply oxygen to the baby. Blood pressure can be monitored to show how well the baby's heart works. Fluids are also given to the baby through the UAC.

**Respiratory Support**

Often, babies in the NICU need some assistance to breathe effectively. There are several ways to ensure that babies get the support they need for respiration

* **Nasal cannula —** Small prongs go into the baby's nose through which air mixed with oxygen is administered.
* **Continuous positive airway pressure (also called CPAP) —** A machine that sends air and oxygen to your baby's lungs through small tubes in his nose or windpipe (also called the trachea).
* **Endotracheal tube —** A small plastic tube that goes into a baby's nose or mouth and down to the windpipe (also called the trachea) that sends air and oxygen to the lungs. The tube is attached to a mechanical ventilator machine to help your baby breathe.
* **Mechanical ventilator —** A machine that helps your baby breathe or breathes for him when he's not breathing on his own. It works by pushing warm air and oxygen into the lungs through a breathing tube called an endotracheal tube. The provider sets your baby's oxygen, air pressure, and breaths per minute.

**Feeding tubes**

Feeding requires both strength and coordination. Some babies may not be able to suck and swallow well enough to get all the nutrients that they need.

* **Gastrostomy tube (also called g-tube or gastric feeding tube) —** A tube that goes into your baby’s stomach for feeding. Liquids go through the tube to feed your baby. The tube is used for babies who can’t take food by mouth and need long-term help with feeding.
* **Nasogastric tube (also called NG tube) —** A feeding tube that goes through your baby's nose, down the esophagus, and into the stomach. The esophagus is the tube in your baby’s body that carries food from the throat to the stomach. Your baby can get breast milk, formula, and medicine through the tube. When your baby is fed breast milk or formula through an NG tube, it's called gavage feeding.
* **Orogastric tube (also called OG tube) —** A feeding tube that goes in your baby's mouth, down the esophagus, and into the stomach. The esophagus is the tube in your baby's body that carries food from the throat to the stomach. Your baby can get breast milk, formula, and medicine through an OG tube. When a baby is fed breast milk or formula through an OG tube, it's called gavage feeding.