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2245/3-21/HM

Welcome

to the Neonatal Intensive Care Unit (NICU)

PARENT GUIDE

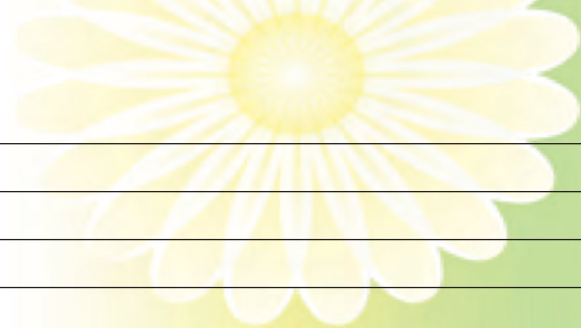
NICU and Transitional Care Nursery
856.342.2229

Congratulations on the birth of your baby, and welcome to the Neonatal Intensive Care Unit (NICU) at Cooper University Health Care. We know that having a baby can be stressful and frightening at times—all the more so if they need specialized care. We are privileged to care for you, your baby, and your family. This guide introduces you to Cooper's NICU and the team of highly skilled doctors, nurses, and specialists who are part of your baby's care team.

This guide also provides important information on how you can support your baby while they are in the NICU as well as visitation guidance, commonly heard terms in the NICU, and other resources to support your baby and your family.

We hope that this guide will help to ease some of your fears and help you to feel at home in the NICU. As always, we are here to answer any questions you may have or connect you to resources you may need.

Cooper
University Health Care
Children's Regional Hospital



[Include information here if electronic nomination form is also available.]

If you have any questions, please contact: ______________________ at ______________

Getting to Know Your Baby's Care Team

It takes a village to care for a child. You are a key member of the team that will care for your baby. In the NICU, you will see many different providers who are part of your baby's care team.

Coordinating Care Through "Rounds"

Meeting the delicate needs of your baby is our primary concern, and our staff regularly checks on them. Rounds provide a great opportunity to share updates on your baby and their plan of care as well as to answer any questions you may have. We encourage you to participate as much as possible.

Medical rounds are performed twice a day to discuss your baby's individualized care plan. You are welcome and encouraged to take part in these rounds, which include the doctors, nurse practitioners, nurses, respiratory therapists, and clinical pharmacists who are part of your baby's care team.

Hourly rounding is practiced by members of your baby's care team to monitor them throughout the day. During these rounds, we evaluate your baby's environment to ensure their safety, check any tubes your baby may require, and monitor them for any signs of pain or discomfort.

Multidisciplinary rounds occur weekly with a representative of the care team. Every baby's length of stay in the NICU varies depending on their unique needs. The team will meet regularly from the beginning of your child's stay to discuss their care, family support, and ultimately discharge plans.

At shift changes, the nurse on duty provides the nurse coming on duty with an update on your baby. This information helps to ensure a seamless transition of care between members of the nursing team.

Visitation

Parents or support persons who have a NICU bracelet may visit 24 hours a day, 7 days per week. All visitors must be over the age of 18. Please note that visiting guidelines may change depending on seasonal illnesses, such as the flu.

You may also call at any time to check on your baby. We will frequently verify your identification to protect your privacy. Please be prepared to give your NICU bracelet number when calling. This number should not be shared with anyone else. If you are unable to visit, the NICU has the ability to FaceTime with you so you can see your baby.

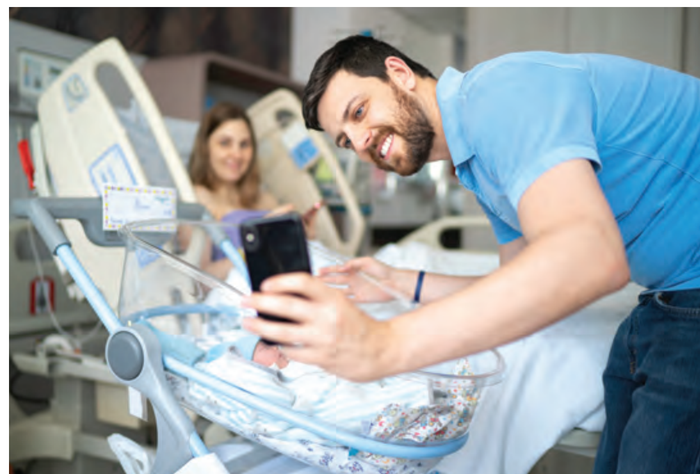
Provide the NICU bracelet number (shown here highlighted in yellow) to verify your identity.

Visitor parking is available in an enclosed parking garage attached to the hospital. Cooper will compensate parking for NICU parents or support persons to promote bonding with your child.

Cell Phone Use in the NICU

For optimal growth and development, your baby and the other babies in the NICU need an environment that has minimal stimulation. While we encourage you to take pictures and capture milestones of your baby's life, we ask you to limit your cell phone use while in the NICU.

Cell phones often carry germs that can pass from your phone to your hand and, in turn, your baby. Therefore, limited use of cell phones minimizes the risk of an infection being passed to your baby. We will ask you and anyone else entering the NICU to place your phone in a plastic bag to further reduce this infection risk. We encourage you to use your time in the NICU to bond with your baby and participate in their care.



How You Can Support Your Baby

Wash your hands: We ask all of our parents and visitors to scrub their hands for 2 minutes every time they enter the NICU. We also ask that you use hand sanitizer when entering and leaving your baby's room and before you touch them. Remember, it is okay to ask staff members to wash or sanitize their hands if you did not see them do it.

Do not visit if you aren't feeling well: To protect the health of your baby and all babies we are caring for, anyone who is feeling ill or feverish should not visit the NICU.

Hold your baby: With the guidance and support of your baby's nurse, you can hold your baby as soon as they are ready. Depending on the needs of your baby, you will be able to hold them skin to skin (called kangaroo care). Holding your baby can help to stabilize their temperature, heart rate, and breathing rate. This is also a great opportunity to bond with your baby.

Breastfeed if you can: See page 3 for expert recommendations and information on the benefits of breastfeeding your baby. If you can't breastfeed or choose not to breastfeed, you may consider using donor milk for your baby.

Donor Milk

A mother's own milk is always preferred for feeding a baby. Research shows that mother's milk:

- Contains a unique and powerful combination of nutrients that are important for infant health
- Supports a baby's growth and development
- Boosts a baby's ability to fight infection
- Promotes the overall health of the baby's digestive system

However, when a mother's milk is not available, donor breast milk may be the best option to meet your baby's nutritional needs. All milk donors are healthy nursing moms who must meet the Mid-Atlantic Mothers' Milk Bank standards. This means that they must not be using any medications while collecting milk and must have negative blood tests for HIV-1 and 2, hepatitis B, hepatitis C, HTLV-1 and 2, and syphilis. Donor milk used in the NICU is carefully screened for safety.

Donor milk is pasteurized (heat-treated) human milk that comes from a certified milk bank. Pasteurization kills any known viruses and bacteria in the milk. After pasteurization, the milk is tested before it is sent to hospitals for use. Your baby's medical team will help to decide whether donor breast milk is best for your baby. Unpasteurized breast milk from a family member, friend, or online resource is not recommended.

Infant formula is an alternative to feeding your baby if neither your own milk nor a donor's milk is available. Please talk to a member of the medical team or your lactation consultant if you have questions or concerns about the use of donor human milk for your baby. You can also learn more about banked donor milk from the following websites:

- Milk Banking Association of North America: **www.hmbana.org**
- Mid-Atlantic Mothers' Milk Bank: **www.midatlanticmilkbank.org**

Want to Say Thank You to Your Nurse? Share *Your* Story!

The DAISY Award is an international recognition program that honors and celebrates the skillful, compassionate care that nurses provide every day.

The DAISY Foundation was established by the family of J. Patrick Barnes after he died of complications of the autoimmune disease idiopathic thrombocytopenic purpura (ITP) in 1999. During his hospitalization, the family deeply appreciated the care and compassion shown to Patrick and his family. When he died, they felt compelled to say thank you to nurses in a very public way.

Please say thank you by sharing your story of how a nurse made a difference you will never forget!

I would like to thank my nurse *(name):* ______________________________

from the ______________________________ **Unit.**

Please describe a specific situation or story that demonstrates how this nurse made a meaningful difference in your care or your family member's care:

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More space on the back to continue your story

Thank you for taking the time to nominate an extraordinary nurse for this award! We'd love to include you in the celebration if your nurse is selected for a DAISY Award. Please tell us a little about yourself.

Your name: ______________________ Date of nomination: ______________

Phone: ______________________ Email: ______________________

I am *(please check one):* ❏ Patient ❏ Visitor ❏ RN ❏ MD ❏ Staff ❏ Volunteer

Please submit your nomination form to:

DAISY Coordinator: Chantay Harris
Administrative Assistant, Professional Development, K-213 (2nd floor)
Patient Care Services Department
Email: harris-chantay@cooperhealth.edu • **Phone:** 856.342.2000, Ext. 1005807

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Parent Notes

Why Breastfeed?

Experts recommend breastfeeding.

The American Academy of Pediatrics and the World Health Organization recommend that infants receive nothing but breast milk for the first six months of life. Mothers and infants who breastfeed have better health outcomes than those who formula feed.

It provides nature's perfect nutrition.

Healthy full-term infants do not need to be given formula to fill them up. The first milk produced, called colostrum, is being made for the infant during the third trimester of pregnancy and is ready for the infant as soon as delivery is complete. The amount of colostrum that is produced at the time of delivery is all that the infant needs. During the first few weeks of life, as breastfeeding continues, the breast milk "supply" grows in response to the infant "demand."

It's hard work — but so worth it.

Confidence when breastfeeding, especially during the first few days and weeks after delivery, is not always easy to achieve. New babies can be sleepy or unsettled, and mothers may be tired and sore. Sometimes a mother may ask for formula without realizing the dangers that formula supplementation can have on infant nutrition, milk production, and latching to the breast.

Exclusive breastfeeding decreases the infant's risk of:

- Asthma
- Allergy, including cow's milk allergy
- Acute respiratory disease, including pneumonia and RSV
- Dental malformation
- Infection from contaminated formula
- Nutritional deficiencies
- Childhood cancers, such as leukemia
- Chronic diseases, such as high blood pressure and high cholesterol
- Both Type 1 and Type 2 (adult-onset) diabetes
- Cardiovascular disease
- Obesity
- Digestive distress and disease
- Mortality
- Otitis media and ear infections
- Side effects of environmental contaminants
- SIDS
- Sleep apnea

Exclusive breastfeeding decreases the mother's risk of:

- Premenopausal breast cancer
- Being overweight or obese
- Ovarian cancer and endometrial cancer
- Osteoporosis
- Stress and anxiety
- Rheumatoid arthritis
- Gestational and adult-onset (Type 2) diabetes
- Hypertension and cardiovascular disease
- Metabolic syndrome

Benefits of exclusively breastfeeding for the child and parents include:

- Improved cognitive development
- Increased natural child spacing
- Continuous stimulation of the mother's hormones to ensure an ideal milk supply
- Less likelihood of rapid breathing, coughing, choking, and color changes (all of which are risks of feeding by formula)
- Less likelihood of nipple confusion because of the difference between a shallow latch for a bottle/pacifier and a wider, deeper latch at the breast
- Less likelihood of insufficient milk drainage from the mother, leading to decreased milk supply, painful engorgement, and/or mastitis (breast infection)

Oral-Motor Stimulation and Oral Feeding Skills

Speech language pathologists (SLPs), or "feeding specialists," evaluate and treat babies with feeding difficulties during their NICU stay and can continue to provide assessment/treatment once babies are discharged from the NICU.

In the NICU, SLPs will:

- Evaluate your baby's feeding skills by examining their lips, tongue, jaw, cheeks, and palate; this allows us to develop a feeding plan that is best for your baby
- Assess bottle nipple flow rates to determine whether your baby requires a slower or faster flow
- Try different feeding positions to see which position is best for oral feeding
- Determine whether further evaluation of your baby's swallowing is needed to assess their feeding skills
- Work with the medical team to see if your baby's feeding times or schedule should be modified
- Facilitate positive and pleasurable feeding experiences to set your baby up for long-term feeding success after they are discharged from the NICU

You can encourage cue-based feeding by following the infant-driven feeding (IDF) protocol.

Signs of STABILITY during oral feeding:	Signs of STRESS during oral feeding:
• Calm, alert, and engaged • Eyes opened (babies like to have the lights dim so they can comfortably open their eyes) • Vital signs stable • Rooting and latching • Able to self-pace and coordinate suck/swallow/breathing	• Fatigue/sleepiness, tachypnea (increased respiratory rate), drop in heart rate or oxygen level, nasal flaring, head bobbing, or work of breathing • Spilling milk down chin, gulping, gurgle/wet breath sounds, color changes, coughing, choking, or gagging

Whether your baby is breastfeeding, bottle feeding, or both, you have an important role in helping your baby to achieve safe and successful full oral feeds. Here's how you can help your baby to develop successful feeding skills:

- Provide a safe and comfortable feeding position for your baby. Babies who are not full term tend to benefit from an elevated sidelying position.
- Once your baby gets bigger and approaches "full term," they may tolerate a semi-upright position, with their head supported in a midline/neutral position.
- When feeding your baby, you can swaddle them with their hands toward their face.
- If you are bottle feeding, you can pace the baby's feeding by fully draining the nipple in between sucking bursts or fully removing the nipple from baby's mouth to help to coordinate their suck/swallow/breathing pattern.

Newborn Screening Tests

Most babies are healthy when they are born, but some babies may have a rare health problem, even though they look healthy. Through newborn screening we can help to prevent serious problems in your baby's health by finding any problems early. All infants born in a New Jersey hospital or birthing center will be screened. If your baby is still in the hospital, screenings are typically done at 2, 7, 14, 21, and 42 days of life or on discharge from the hospital.

Ask your baby's care team if you have questions or concerns about newborn screening tests.

How will my baby be tested?

Before you leave the hospital, a nurse will take a few drops of blood from your baby's heel. The hospital will send the blood sample to a newborn screening lab.

How will I get the results of the test?

The State Health Department will notify you via mail if your baby's test results indicate a problem. Your baby's doctor is also notified of these results and often receives the results before your letter is mailed.

- **Monitor:** A machine displaying a baby's heart rate, respiratory rate, blood pressure, and blood oxygen saturation.
- **Nasal Cannula:** Small prongs placed in a baby's nose to deliver oxygen.
- **NPO:** Latin abbreviation meaning "nothing by mouth." If a baby is kept NPO, all nutrition will be given intravenously (through a vein).
- **Omni Bed, or Giraffe:** A specialized bed that provides heat and humidity and can weigh your baby.
- **Peripherally Inserted Central Catheter (PICC Line):** A line inserted through a vein and advanced through increasingly larger veins toward the heart. A PICC line may be used for IV therapy, antibiotics, or nutrition.
- **Phototherapy:** Light therapy to treat jaundice. Bright blue fluorescent lights, called bililights, are placed over a baby's incubator, or the baby may be placed on a blanket that also shines the light up to the baby.
- **PKU, or Metabolic Screen/Newborn Screening:** A blood test done on special paper to look for several different genetic disorders. It is often done 24 to 72 hours after birth and repeated on preemie babies at 2 and 4 weeks of age.
- **Pulse Oximeter, or "Pulse Ox":** A machine that measures how well the blood is being oxygenated, often used on the feet or wrists.
- **Reflux:** Backward flow of stomach contents, generally referring to a type of spitting up or regurgitation common in premature infants.
- **Residuals:** The contents left inside the baby's belly at the start of the next feeding.
- **Respiratory Distress Syndrome (RDS):** Lung disease caused by lack of surfactant (lubricant in the lungs). RDS is a common cause of breathing difficulty in premature babies.
- **Sepsis:** A dangerous and potentially fatal condition in which the body is fighting a severe infection that has spread via the bloodstream.

- **Suctioning:** The process of removing secretions from the baby's nose, mouth, or lungs with either a bulb syringe or a suction catheter.
- **Swaddle:** A method of wrapping a baby in a blanket to help keep them warm. Swaddling can also provide comfort and containment.
- **Tachycardia:** Abnormally fast heart rate.
- **Tachypnea:** Abnormally fast breathing rate.

- **Total Parenteral Nutrition (TPN):** A type of IV fluid that provides total nutrition to someone who cannot take any nourishment by mouth. TPN is nutrition provided outside of the digestive system that contains sugars, electrolytes, vitamins, and proteins to supply all of the nutrients that the body needs.
- **Trophic Feeds:** A slang phrase to describe the slow starting of feeds to get the digestive system ready to start functioning fully.
- **Umbilical Lines (Umbilical Arterial "UA" or Umbilical Venous "UV"):** A type of central line that can be placed in the umbilical cord to provide fluid and nutrition to a baby. Your baby cannot feel this line and does not experience any pain.
- **Ventilator (Vent):** A machine that helps an infant breathe by pumping oxygen into a tube ("ET tube") that goes into the lungs.
- **Warmer, or Radiant Warmer:** An open bed that allows maximum access to a sick or newborn infant. Radiant heaters above the bed keep the baby warm.
- **Wean:** To take away gradually, often used in the NICU to describe the process of removing an infant from a ventilator or an incubator.

Common Terms You May Hear in the NICU

As you navigate through your NICU journey, here are some of the terms you may hear at your baby's bedside and what they mean:

- **Anemia:** A condition in which the level of red blood cells is lower than normal. Red blood cells carry oxygen and carbon dioxide to and from tissues in the body.
- **Apnea, or "A":** A pause in breathing that lasts more than 20 seconds. This is a common problem in premature infants that requires monitoring and sometimes medication.
- **Aspiration:** Inhaling a foreign substance into the lungs, such as milk or amniotic fluid.
- **Bagging:** A slang term for pumping air into a baby's lungs using oxygen and a rubber bag. This method is used temporarily to help a baby who needs help breathing.
- **Bilirubin:** A yellow pigmented waste product that forms when the body naturally eliminates old red blood cells. Bilirubin may make the skin and eyes look yellow, or jaundiced. Premature infants are often put under a fluorescent light (called "phototherapy") to help reduce the bilirubin level.
- **Blood Gas:** A blood test to evaluate an infant's level of oxygen, carbon dioxide, and acid. This helps to evaluate respiratory status.

- **Blow by:** A slang term for giving a baby a small amount of oxygen through a tube pointed toward the nose.
- **Bradycardia ("Brady" or B's):** A slowing of the heart rate.
- **Chronological Age:** A baby's age based on their actual birthday.
- **Corrected Age:** A baby's age based on their gestation.
- **Cyanosis:** Blueness of the skin as a result of decreased oxygen levels.
- **Desaturation ("De-satting"):** A drop in oxygen level in the baby's bloodstream.
- **Endotracheal Tube (ET Tube):** A tube that passes through the baby's mouth or nose into the windpipe (trachea) to allow oxygen into the lungs.
- **Gavage Feedings (OG, NG, or Nasogastric Tube):** A plastic tube passed through the baby's mouth or nose and into the stomach to provide nutrition.
- **Head Ultrasound (HUS):** A painless test using sound waves to look at a baby's brain. This test can be done at the bedside in the NICU.
- **Heel Stick:** A slang term for obtaining a blood sample by pricking the baby's heel.
- **High-Frequency Oscillatory Ventilator:** A special ventilator capable of breathing for a baby at rates exceeding those of a normal ventilator.
- **Hypotension:** Low blood pressure.
- **Input and Output (I's and O's):** A slang abbreviation for the amount of fluid (IV and feeds) a baby takes in compared with how much output the baby has.
- **Intravenous (IV) Therapy:** Nutrition or medication given through a catheter that is inserted into a vein.
- **Intubation:** Inserting a tube into the trachea (windpipe) through the nose or mouth to allow air to reach the lungs.
- **Isolette, or Incubator:** A type of enclosed bed for an infant who is not mature or well enough to maintain their body temperature in an open crib.

- **Jaundice:** Yellow skin color that develops in most premature babies and some full-term babies.
- **Kangaroo Care:** Skin-to-skin care where the baby is placed on the bare chest of the mother or father.
- **Lead:** Monitor wires attached to a baby's skin.
- **Meconium:** A dark green sticky substance found in the baby's intestines. It's the baby's first bowel movement after birth.

Why do some babies need to be retested?

Your baby may be retested if you leave the hospital less than 24 hours after birth. Some states require a second test for all babies. Some babies need to be retested because of a problem with the blood sample or because the first test showed a possible health problem.

What if my baby needs to be retested?

Your baby's health professional or the State Health Department will contact you if your baby needs to be retested. They will tell you the reason and explain the next steps. If your baby needs to be retested, it is recommended to do it right away. Be sure that your hospital and health professional have your correct address and phone number.

Congenital Heart Disease

Congenital heart disease (CHD) is the most common birth defect. Infants with CHD have an abnormal heart structure that creates abnormal blood flow patterns. Approximately one in every 1,000 infants has a form of CHD. Some forms of CHD cause no or very few problems in a baby's health, growth, and development. However, critical CHD can bring a significant risk of further health problems and even death if not diagnosed soon after birth.

A simple pulse oximetry (or "pulse ox") test can help to diagnose cardiac defects in a baby. The test can also help to identify babies with low levels of oxygen in their blood who may have serious heart problems. A medical practitioner may ask for more testing, such as an ultrasound of the heart or an echocardiogram, if your baby has a low pulse ox reading. The echocardiogram will screen your baby for any serious problem with the structure of their heart or the blood flow through the heart. Pulse ox testing can identify a baby with serious CHD before they leave the newborn or neonatal nursey.

Pulse Oximetry

Pulse oximetry is a simple, noninvasive, and painless test to measure pulse rate and how much oxygen is in the blood. Pulse ox is often thought to be a basic vital sign. Pulse ox is measured with a sticky strip, like a bandage, with a small red light (or "probe") on the baby's hand and foot. The probe is attached to a wire that is connected to a special monitor that shows the pulse ox reading. The pulse ox test takes just a few minutes to perform when a baby is still, quiet, and warm. You can comfort your baby and keep them warm, calm, and quiet while the test is being performed.

It is possible that the pulse ox test will not detect all problems with a baby's heart. Your baby should continue to have normal visits with their primary care doctor, who will advise you if they suspect a problem with your baby's heart.

Where should pulse ox screening be performed?

Pulse ox screening should be performed while the infant is in the hospital nursery before they go home.

How Physical and Occupational Therapy Can Help

"Big Journeys Begin With Small Steps"

Getting Ready to Go Home

To be discharged from the NICU, your baby needs to be consistently gaining weight, eating all of their feedings, and maintaining their temperature while dressed and wrapped in an open crib. We will help you to get ready for your baby's discharge by making sure you feel prepared to feed and care for your baby. We will contact your chosen pediatrician to schedule your baby's first appointment. Our team will also provide your pediatrician with a summary of your baby's stay in the NICU. Our neonatologists will continue to care for your baby in cooperation with your pediatrician through our ***Neonatal Follow-up Clinic***.

You will be asked to watch educational videos to help you to feel ready for your baby's discharge from the NICU.

We will need you to bring in your infant car seat before discharge. We may need to evaluate your baby's safety in the car seat, depending on their size. This is referred to as a car seat challenge.

Your baby's nurse will give you further information on prescriptions, feedings, safe sleep, and other discharge needs.

Make sure to contact your insurance company within 30 days from birth to add your baby to your insurance plan. If you need help with this, our social worker is available.

Support for NICU Families

The Behavioral Medicine team at Cooper provides psychological support to patients and families who are struggling with distress related to medical issues. The team is available to check in on NICU families and provide ongoing support during hospitalization and afterward in our ***Neonatal Follow-up Clinic***.

Social Work: Our team of skilled social workers helps to coordinate services, including your own support structure, financial and insurance arrangements, and even housing needs.

Ronald McDonald Family Waiting Room: Our partners at the Ronald McDonald House provide a room for NICU families as a place to sit and relax. Snacks and beverages are provided. There is a restroom available for families in the waiting area and a second one located just outside of the NICU entrance.

Pastoral Care: We have a team of chaplains who are available to NICU families on request to offer prayers.

Safety: It is important to us to protect your family's safety while your baby is receiving the specialized care they need. To protect your baby, the NICU is one of many locked units in the hospital. Our unit secretary will help you to enter and exit the unit. We also have a security team to help ensure the safety of our patients and their families. You will see our security guards stationed at different points in the hospital.

Lactation Specialists: Breastfeeding support is available through our lactation consultants, nurses who specialize in the art of breastfeeding and manage any complex breastfeeding challenges.