Baby's First Book

"Sometimes, the smallest things take up the most room in your heart."

-A.A. Milne

MetroHealth
Pediatrics

Baby's 1st Book
Content

Patient's Bill of Rights, Speak Up, and Pain fliers in back folder pocket

Welcome to our NICU

Welcome to the Neonatal Intensive Care Unit (NICU) at MetroHealth Medical Center. We realize that the birth of an infant is a joyous moment for families, but having a baby that requires specialized medical needs can be very frightening. We have prepared this book to help familiarize you and your loved ones with our NICU.

Our NICU is an accredited Level III NICU with a 49-bed capacity. We provide care for the most critically-ill infants, and we are fortunate to have the most up-to-date technology and a wide variety of specialty services. Most importantly, our unit is staffed by doctors, registered nurses, neonatal practitioners and other health team professionals who are dedicated to helping your baby throughout this hospitalization.

Our NICU staff is grateful to share in this experience with your families, and we hope to decrease some of the anxiety and fear you may be feeling. We encourage your participation in your baby's care, for it is an important component of his or her time spent here in our NICU. We hope this booklet will give you a place to store your memories, as well as document the milestones your baby achieves while in the NICU. This book will also serve as a reference guide of information that may help in the understanding of your baby's care.

General Information

Babies who are admitted into the Neonatal Intensive Care Unit (NICU) can be quite ill. Oftentimes the care they require can be complicated and difficult to understand. As a parent, you will receive ongoing education during your baby's stay in our NICU. The following topics will be reviewed during admission:

Hand Washing

The best defense against illness is hand hygiene. Everyone who enters the NICU must wash their hands before coming in contact with your baby. Hands must be washed upon entering the unit for three minutes in duration. Hand washing must be repeated each time you re-enter the NICU.

Visitation Guidelines

We hope to make the time you spend at MetroHealth as comfortable as possible. We have two waiting areas for our NICU families. The first is located just outside our NICU. The second is our Ronald McDonald Family Room, which is located on the fourth floor. This is a place families may go to relax and rest, leaving some of the stress they may be feeling behind. We encourage you to visit daily and participate in your baby's care throughout their stay.

Visitation guidelines have been established and are as follows: Parents have 24-hour visitation. They must have original bands on or, if not, they must show picture identification at the front desk. Please do not share your band number with anyone. Grandparents, as well as other visitors, must be accompanied by the parent of the infant during visitation hours of 10:00 a.m. - 10:00 p.m. The only children who may visit the NICU are brothers and sisters of the baby who are greater than three years old. Siblings may remain at the bedside no longer than 30 minutes daily. No more than three visitors, including parents, may be at an infant's bedside at one time. If special visitation is requested, please contact management staff. Please remember that all our families deserve a right to privacy, so please stay at the bedside of the infant you are visiting.

MetroHealth staff reserves the right to restrict visitation due to illness, especially during cold and flu season.

Please DO NOT visit if you have the following illness:

- Diarrhea
- Vomiting
- Sore Throat
- Runny Nose
- Fever
- Flu
- Severe Cough (ask for a mask)
- Breathing Difficulty
- Conjunctivitis (Pink Eye)
- Unusual or Infected skin patches or rash
- Chicken Pox, Mumps, Measles or known exposure.
- Known exposure to other communicable disease such as hepatitis or TB.
- Lice, Scabies or other parasites.
- For your safety and the safety of other patients, please be aware that any visitors that are unruly, destructive to hospital property or who demonstrate violence will be asked to leave and will be escorted off the premises by security.

Breastfeeding

The American Academy of Pediatrics recommends that babies get breast milk for the first year of life. We ask that you provide breast milk for your baby. This is very important for both pre-term and full-term babies. Breast milk is easily digested and offers protection from infection for your baby. Ultimately, it is your decision on how to best feed your baby. You might choose to pump breast milk now and make a final decision with regard to breastfeeding at a later time.

Pumping kits are available upon request in the NICU. Breastfeeding classes are also available. See brochures enclosed in the back pocket of this book.

A Plan for Your Baby

We hold medical rounds every morning. All members of the healthcare team meet and discuss the plan of care for all the babies in our unit. As parents, you are welcome to participate in our rounds. If you are unable to attend morning rounds, you may ask the doctor or nurse about the plan of care for your baby. Parents can also request to meet with a physician for a family meeting to talk about their baby's condition.

Family Education

Family education is ongoing throughout your baby's hospital stay. Nurses will review basic infant care, such as diapering, taking a temperature and bathing. Educational information will be given by the medical team throughout your baby's stay in the NICU. Information pamphlets pertaining to your baby's specialized needs are available. All infant care instructions will be given prior to discharge.

Your Baby's Healthcare Team

During your baby's stay in the NICU, a team of specialists in newborn medicine will care for your infant. MetroHealth Medical Center's NICU team is dedicated to providing quality care and is specially trained to take care of your baby and your family's special needs.

***The Neonatologist*:** A neonatologist is a medical doctor specializing in pediatrics with advanced training in neonatology, or the treatment of ill and premature newborns. The neonatologists are on service for one calendar month at a time.

***The Neonatal Fellow*:** A fellow is a pediatric doctor who is completing the advanced training to become a neonatologist. The neonatal fellows are on service for one calendar month at a time. A fellow is available 24 hours a day in the NICU.

***The Pediatric Resident*:** The resident is a medical doctor now being trained to specialize in pediatrics. Residents are on monthly rotations that will change during the course of each month.

***Neonatal Nurse Practitioner (NNP)*:** The neonatal nurse practitioner is an advanced practice registered nurse who has completed additional schooling in the diagnosis and treatment of illness in sick and premature infants. An advanced practice nurse in Ohio has a certificate of authority to practice and is credentialed by the medical staff at MetroHealth to provide this level of care

***The Pediatric Specialist*:** Other pediatric doctors may be asked by the neonatologists to see your baby to help identify or diagnose and treat the special, healthcare problems your baby may have. Examples of the consulting physician specialists might include heart specialist, gastroenterologist, geneticist, pediatric surgeon and others depending on your babies needs.

***The Nursing Staff*:** The nursing staff working in our NICU are all registered nurses. Many of these nurses have obtained a board certification in neonatal nursing. These nurses have been educated in the care of premature and sick newborns. They provide 24-hour care to your baby. Although our whole nursing team will help, we will assign 1 main nurse (primary) and additional specific nurses (associate) who will mainly take care of your baby. They will come to know you and your baby really well. Primary and associate nursing is our team approach to caring for your baby.

The Nurse Manager/ Assistant Nurse Manager: These are registered nurses in a management position who are responsible for the daily operation of the unit and of the nursing and support staff.

***The Clinical Nurse Specialist*:** The neonatal clinical nurse specialist is an advanced practice nurse who has completed a Masters in Nursing with a focus in neonatology, has a certificate of authority to practice in the state of Ohio and is credentialed by the medical staff at MetroHealth to provide care. The clinical nurse specialist works with the healthcare team within the organization and with families to assure quality of care and provide education as needed.

The Lactation Specialist: The lactation specialist is a registered nurse who has completed additional education and obtained certification as a lactation consultant and provides breastfeeding assistance to mother and baby.

***The Case Manager*:** The case manager is a registered nurse who helps the healthcare team to assess and plan services to meet the needs of your baby and family. The case manager can help you apply for other forms of financial aid that may be available to your family. The case manager maintains contact with insurance companies and other payers to clarify benefits. Before discharge, the case manager will arrange for medical and home care equipment.

The Social Worker: The social worker is a masters-prepared, licensed professional that can provide counseling, education, and community referrals for children and families. In the NICU, they can also offer support in dealing with the hospitalization of a sick or premature newborn.

***The Respiratory Therapist*:** The respiratory therapist is a specially trained healthcare provider who works together with the doctors and nurses to help babies breathe easier. The respiratory therapist operates a wide variety of equipment, including breathing machines, oxygen and other special devices that help sick babies.

Maternity Service Representative ("MSR"): The MSR works at the front desk. He or she will assist you with calls, visitation and scheduling appointments.

***The Chaplain*:** Chaplains are professional men and women educated to provide spiritual and emotional support to families. They can assist you with specific requests you may have about prayer, sacraments or other spiritual needs, or they can contact your church, community, pastor or rabbi.

The Special Care Clinic Coordinator: The coordinator of the follow-up clinic helps to schedule your baby for follow-up preemie clinic appointments. If your baby needs to go to Special Care Clinic, we will provide you with a handout explaining the importance of keeping these appointments.

***The Occupational or Physical Therapist (OT/PT)*:** Occupational therapists and physical therapists are healthcare providers specially trained to evaluate and treat children with neuro-developmental problems, feeding difficulties, strength or movement abnormalities or developmental delays. If your baby requires this special care, the neonatologist will ask the therapist to do an evaluation and they will recommend a treatment program for your baby that may include feeding methods, positioning, splinting, massaging and exercises that you can do to help your baby.

Smoking Policy

Smoking is not allowed on the MetroHealth campus.

Infant Security ("Hugs")

The NICU is a locked unit for your baby's protection. This is also why we must verify parent's by their ID band or photo ID. As your baby gets better, an electronic tag (Hugs) will be used for security purposes, also.

Available Services

The following services are available upon request:

- Interpreter Services
- Hearing Impaired
- Maternal Boarding

NICU Survival Tips

Treat each day as a new day. A baby's NICU stay can be very much like a rollercoaster, having many emotional ups and downs. Take it one day at a time.

It can be very stressful for parents to have their baby in the NICU. Parents may feel a variety of different emotions, including shock, disbelief, anger, guilt or depression. Know these feelings are normal under the circumstances, and we will offer all our support and services to assist you in this difficult journey.

Be patient with your spouse and family members. Everyone handles their emotions and stress differently. You are all in this together.

Surround yourselves with those you love. Accept help as offered, whether it be a shoulder to cry on, or a warm meal for your family.

Take care of your physical and spiritual needs. Remember to rest and eat well, as you will need your strength to take care of your baby when he or she comes home.

Involve yourself in your baby's care. Please visit frequently. Try to arrange your visitation to include Kangaroo care or feeding and bath time.

Take lots of pictures. Bring a disposable camera to keep at your baby's bedside or use your cell phone. Use it to capture all those "cute" moments. Are you having problems taking a picture with your baby's eyes open? Try turning off the overhead light.
Shielding your baby's eyes might help as well.

Keep mementos of you baby's stay in the NICU, such as ID bracelet, blood pressure cuff or first hat. Take many photos and journal in your infant book while visiting.

Linens and clothing may be brought from home to be used for your baby. We ask that all items be washed with Dreft detergent and without fabric softener prior to use. Please inspect previously used items for smell of smoke. If smoke scent is detected on items, they will be returned and not used.

Things to Do with Siblings

Having a baby in the hospital can be stressful for the whole family. Brothers and sisters want to learn about and help take care of the new baby. Here are some tips to help.

It is important for your children to visit their new brother or sister. This can help them in bonding with the baby, as well as validating the existence of their new sibling.

The only children who may visit the NICU are brothers and sisters of the baby who are greater than three years old. If you would like for them to visit, we will need to do a short health screening. Please call the NICU before your child visits. Of course, a parent or other adult must be with the siblings at all times. An adult must always be with the sibling in the waiting area. Please feel free to bring books and crayons or toys to help entertain the child while in the waiting area. The Ronald McDonald Family Room, located on the fourth floor, is available to families of patients from 9 a.m. – 9 p.m. when staffed by a volunteer.

Allow 30 minutes per day to visit. During the visit, encourage siblings to talk to and touch the baby.

Before visiting, prepare siblings for what they will see. Show them pictures of the baby. Children will tend to focus on the baby. Give them a simple explanation of machines, tubes and wires to help relieve fears.

After the visit, talk to brothers and sisters about what they saw. Give them time to express what they are feeling.

Between visits, give them brief, simple updates – both good and bad – on how the baby is doing. This will help ease their worries and satisfy curiosity.

Allow siblings to bring in new clothes. They can also draw or color pictures for the baby. Some children also like to make cards or write letters which can be kept in baby's first book.

Even though you have a baby in the hospital, don't forget to spend special time with your other children. Read stories, play or go for a walk together. It is important that you let your other children know that you have enough love for them and the new baby.

Sibling Class

This class is perfect for the older brother or sister in the family. Our class will teach them what to expect when the newborn baby comes home. For more information, please call 216-778-3381.

Commonly Used NICU Terms

The Neonatal Intensive Care Unit (NICU) is a very busy place. All of the equipment, tubes, wires, machines, noises and medical terms can make you feel overwhelmed. The medical terms, as well as the routines in our NICU can be very unfamiliar to you. Feeling overwhelmed is a very normal reaction for parents and family members.

The machines and equipment provide a very important part of your babies care. The staff uses equipment to monitor you baby's vital signs (heart rate, temperature, breathing rate and blood pressure). Infant monitors are very sensitive so they can detect any change in your baby's condition. Because they are so sensitive, even the baby's movement can trigger a false alarm. Many times the monitors will alarm when nothing is wrong with the baby's condition. The nurse or doctor will know which alarm needs immediate attention.

You will hear the following list of terms throughout your baby's NICU stay. We hope this list helps you understand a little more of what is being talked about, but please ask questions when you do not understand what is being said about your baby. We want to help you feel as comfortable as possible when you spend time with your baby in the NICU.

Accucheck (Blood glucose): A drop of blood that is used to measure blood sugar level in the blood.

Apnea: A temporary pause in breathing lasting more than 15 to 20 seconds. Some babies also have a decreased heart rate or bradycardia with apnea. This is commonly referred to as A's and B's.

ABG (Arterial Blood Gas): An ABG is a test done to measure oxygen and carbon dioxide in the blood. This test can help doctors and staffs adjust the breathing support the baby is receiving.

Aspirate: The amount of formula or breast milk remaining in the stomach before a baby's next feed.

Anemia: A condition where there are not enough red blood cells in the blood

Bilirubin: When your body breaks down old red blood cells bilirubin is released.

When there is more bilirubin than normal, jaundice or yellowing of the skin occurs.

Bolus: A specific amount of fluid given over a short amount of time.

BPD (Bronchopulmonary dysplasia): Referred to as chronic lung disease. A baby who has this may require long-term oxygen. This usually occurs in infants who are very premature and have severe respiratory distress syndrome.

Bradycardia: A slowing of the heart rate to less than 80 beats per minute. Bradycardia is commonly associated with apnea. This will resolve as an infant further develops.

Cardiorespiratory Monitor: A machine used to display the heart rate, respiratory (breathing)rate and blood pressure and oxygen saturations. All babies will have breathing and heart rate monitored.

CBC (Complete blood count): A lab test done to determine the number of red blood cells, white cells and platelets in the baby's blood. This result can assist in identifying an infection.

Central Venous Line: A catheter used to give fluids and nutrition that has been inserted into a large vein. Central lines are used for long-term IV therapy.

Chest X-ray: An X-ray taken of the chest area to look at lungs and heart.

Chest tube: A small tube placed between the ribs through the chest wall and connected to a suction device used to treat a pneumothorax (collapsed lung) or after some surgeries.

Colostrum: Milk produced by mother after birth. It is very rich in antibodies and protein.

Congenital: Present at birth.

CPAP (Continuous Positive Airway Pressure): Oxygen and pressure delivered via prongs in the baby's nose. This may be used after removal of the breathing tube to continue assisting the infant with breathing.

Culture: A test done to check for infection. Specimen obtained by blood, urine, sputum and spinal fluid.

Cyanosis: A bluish discoloration of the skin.

ET tube (endotracheal tube): A flexible tube placed in the mouth and down the trachea (lower breathing passage) connected to a breathing machine that helps the baby breathe.

Extubate: Removal of the breathing tube.

Echocardiogram: Ultrasound of the heart.

Electrolytes: Chemicals in the blood such as sodium, potassium and chloride.

Gavage feedings (NG or tube feeding): A way to feed babies who are not able to go to breast or take feeds by mouth. A very small soft tube is placed into the mouth or nose and passed into the stomach.

Gestational age: Baby's age from the day you become pregnant or date of conception to the date of delivery. A full-term infant has the gestational age of 37 to 42 weeks.

Hematocrit: A blood test to measure number of red blood cells in the blood.

Heel stick: A blood sample obtained by pricking a baby's heel.

Hyperalimentation: An intravenous solution that provides supplemental nutrition.

Hood: A clear plastic tent placed over a baby's head to deliver a specific concentration of oxygen.

Isolette: An enclosed bed that provides warmth and supports the baby's temperature.

Intravenous line: A way to give fluids and nutrition through a catheter into a vein placed in the arm, leg or scalp.

Intubation: A procedure to insert an endotracheal tube (ET tube) through the mouth into the trachea.

IUGR (Intrauterine growth restriction): Infants who grow slowly and are small prior to birth.

Jaundice: The yellow color that appears when there is a high amount of bilirubin in the blood.

Leads: Small patches on the baby's chest that connect to wires, which will monitor heart and breathing rate. They are also referred to as electrodes.

LP (lumber puncture): A procedure where a spinal needle is inserted between two lumbar vertebrae in the lower portion of the back to obtain a sample of spinal fluid to check for infection. This is similar to an epidural or spinal.

Meconium: Your baby's first stool. It is dark green or almost black and usually sticky.

NEC (Necrotizing Entercolitis): An infection in the intestines.

Neonate: A newborn infant (first 28 days of life).

NPO: Nothing to eat or drink.

Nitric Oxide (NO) A gas that is given to treat pulmonary hypertension. It is used to relax the walls of blood vessels in the lungs, which improves oxygenation.

O2: Abbreviation of oxygen.

Percutaneous line (PICC line): A long catheter or tube placed into a vein used to provide fluid and nutrition into the body. It can stay in longer than a regular IV.

Phototherapy: A special light used to help lower the jaundice level. The baby will have eye patches on when this light is in place.

Pneumothorax: A condition when air escapes from the baby's lungs into the chest cavity, which compresses or collapses the lung.

Preemie: A premature infant born before 37 weeks gestation.

Pulse Oximeter: A monitor that measures the amount of oxygen in the bloodstream by using a small light sensor wrapped around the baby's hand or foot.

Radiant Warmer: An open bed with an overhead heater used to keep the baby warm.

RDS (Respiratory Distress Syndrome): A condition in the lungs caused by the lack of a substance called surfactant, usually because of prematurity, which makes it difficult for the baby to breathe.

Sepsis: An infection in the blood stream.

Surfactant: A substance produced by the lungs to help keep them inflated by reducing surface tension. There is also a manufactured substitute used to treat respiratory distress syndrome in premature infants.

TTN (Transient tachypnea of the newborn): Rapid breathing that can occur after birth if the body does not absorb fluid that normally fills the baby's lungs before delivery. This usually lasts just a few days.

Umbilical Artery Catheter (UAC): A small catheter placed into one of the two arteries in the umbilical cord. It can also be used to give fluids, allow bloods to be drawn, or for pressure to be monitored.

Umbilical Venous Catheter (UVC): A small catheter placed in the vein of the umbilical cord that is used to give fluids and nutrition and can be used to draw blood.

Ventilator: A machine that helps support breathing by giving oxygen, as well as a prescribed number of breaths per minute and a set amount of pressure to the lungs.

Vital Signs: Refers to body temperature, heart rate, breathing rate and blood pressure.

Developmental Care

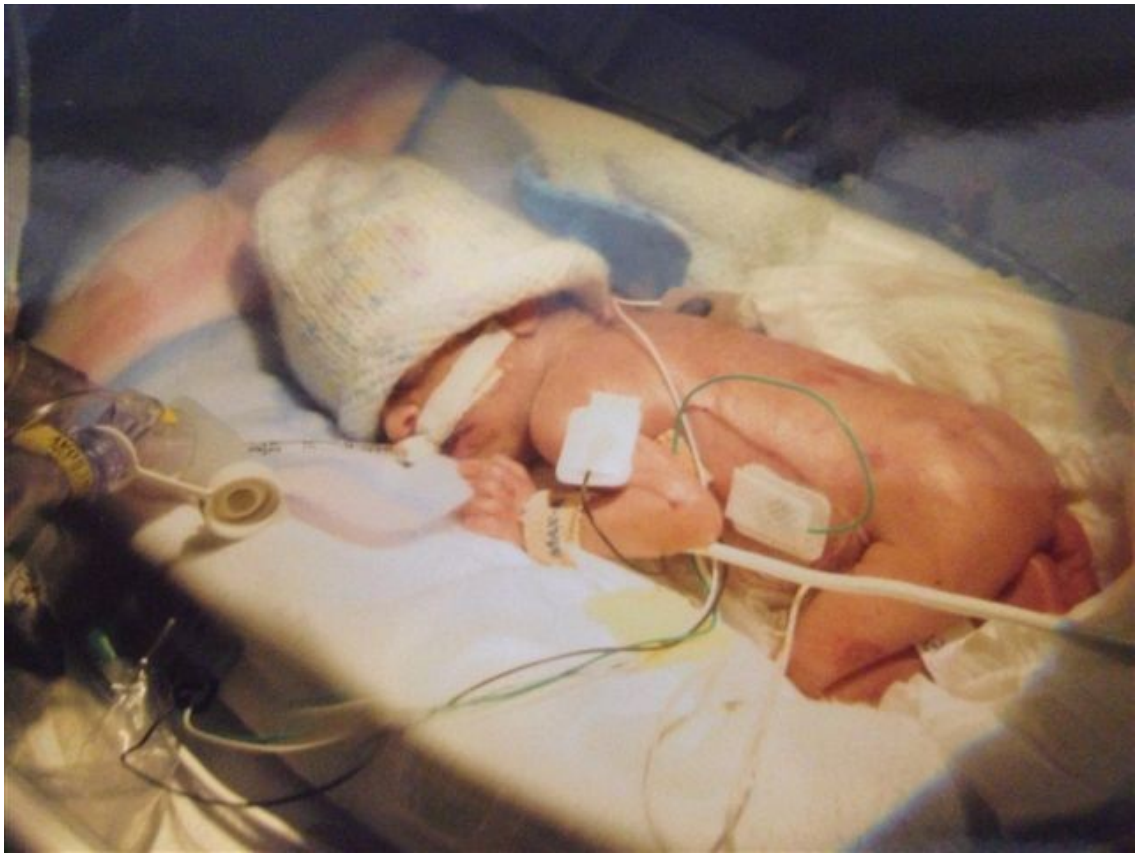
The womb is the ideal place for all babies to experience their growth and development. In the event this is not possible due to a preterm birth, the NICU is the second best place. The developmental supportive care we provide is evidence based, compassionate and mindful of what is in the best interest of the growing infant.

In our NICU, we recognize the vulnerability of our babies and strive to structure our care to minimize any negative impacts the NICU environment may be causing. Providing developmental care has shown to produce positive outcomes, such as reduction in length of stay and costs, as well as a decrease in neonatal morbidities. In addition, infants have shown fewer occurrences of stress cues, as well improved short-term growth outcomes.

In the NICU, we observe babies, because their behaviors can tell us what is stressful for them, or what they find to be comforting. The following information is provided to introduce to you the age-appropriate characteristics and behaviors you may see in your infant, as well as appropriate supportive care we can provide.

Mom and baby

Baby's 1st Book
23 – 25 weeks



Appearance and Development

Your baby is about 14 inches long and weighs about 1.5 to 2 pounds.

Your baby's skin is very fragile; it may appear to be thin, shiny or even translucent.

Your baby's coloring may appear reddened for several weeks.

Your baby's eyelids may be fused.

Your baby is fully formed and can hiccup and cry, as well as hear your voice and heartbeat.

Your baby's extremities are extended (held straight) and weak.

Your baby may exhibit a trembling or jerking movement due to immature muscles and nerves.

Your baby's lungs are not fully mature, so he or she will require a ventilator (breathing machine) to assist with breathing.

Your baby may have catheters in his or her umbilical cord which will allow for blood pressure monitoring, medication administration and blood sampling.

Touching

Touching may be stressful.

Have your nurse show you the best way to touch your baby.

Hold your baby's hand and/or other parts of body.

Cradle your baby by placing your hand around your baby's head and the bottom of his or her feet.

Avoid stroking, poking or rubbing the baby.

Place your finger in your baby's hand.

Consider Kangaroo Care, which is holding your baby on your chest. Ability to do this will be determined by caregiver.

Feeding

Sucking and swallowing are not coordinated.

Feeding by mouth is not possible.

Infant will receive most of nutrition from IV source called TPN.

In order for your baby to receive mother's milk, you can collect and store breast milk as soon as possible, using a breast pump.

Interventions

Allow your baby to sleep.

Decrease loud noises at bedside and dim lights to reduce stimulation.

Cluster Care – clinicians will administer multiple care-giving tasks at once to avoid frequent or prolonged stimulation.

Position your baby in fetal position with boundaries and provide gel pillow.

Speak to your baby in a low calming voice.

Signs of Stress

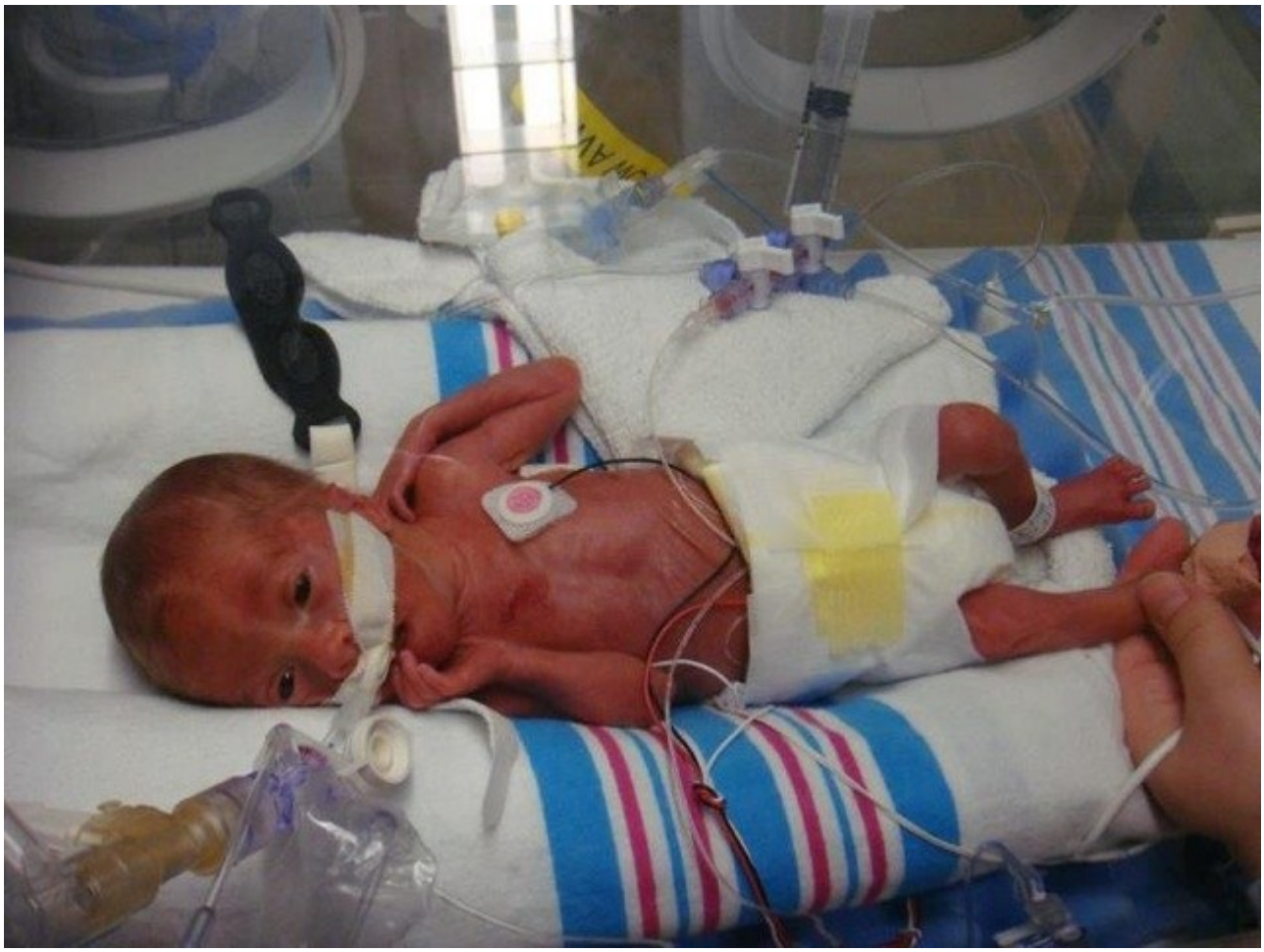
Change in your baby's heart rate and breathing rate (may increase or slow down).

Decrease in your baby's oxygen saturations.

Increased activity and grimacing.

Change in your baby's color (pale or bluish).

26 – 29 weeks



Appearance and Development

A baby born at 28 weeks gestation is about 15 inches long and usually weighs 2 to 2.5 pounds.

Eyes are opened and facial features are developed.

Lanugo, which is fine thin hair, is present and noticeable, especially over the back.

Your baby's skin is thin with very small amounts of fat.

Your baby will continue to have a reddened color. Natural color will develop over next several weeks.

Muscle and tone are improving, and your baby can begin to bend his or her arms and legs.

Hearing is developed and your baby is calmed by mother's voice.

Touching

Continue to hold head and body.

Babies of this age will spend most of their time sleeping.

Your baby may only be able to stay awake for short intervals.

Sleeping will assist the maturation of your baby's nervous system.

Too much touching and stimulation may be stressful for your baby.

Painful procedures will upset your baby and make him or her cry.

Feeding

Your baby will suck on a pacifier.

Sucking and swallowing is present but immature.

Gag reflex is not fully developed.

Infant remains too immature to feed from bottle or breast.

Infant will get nutrition from TPN, as well as mother's milk through a tube going through the mouth or nose into the stomach.

Performing Kangaroo Care may help increase mom's milk supply.

Interventions

Allow baby adequate time to rest.

Understand moving and stimulation to infant will cause them to tire easily.

Speak to your baby in a soft voice.

Maintain dim lighting and a calm environment at bedside.

Protect baby from strong odors, such as heavy perfumes, scented lotions or smoke on clothing.

Position your baby in the fetal position with hands up by face.

Offer a pacifier with tube feeds so baby can begin to associate sucking with a feeling of fullness.

Continue to Kangaroo Care to enhance bonding.

Signs of Stress

Change in heart rate or breathing.

Grimacing or frowning.

Squirming or arching back.

Your baby may be agitated or crying.

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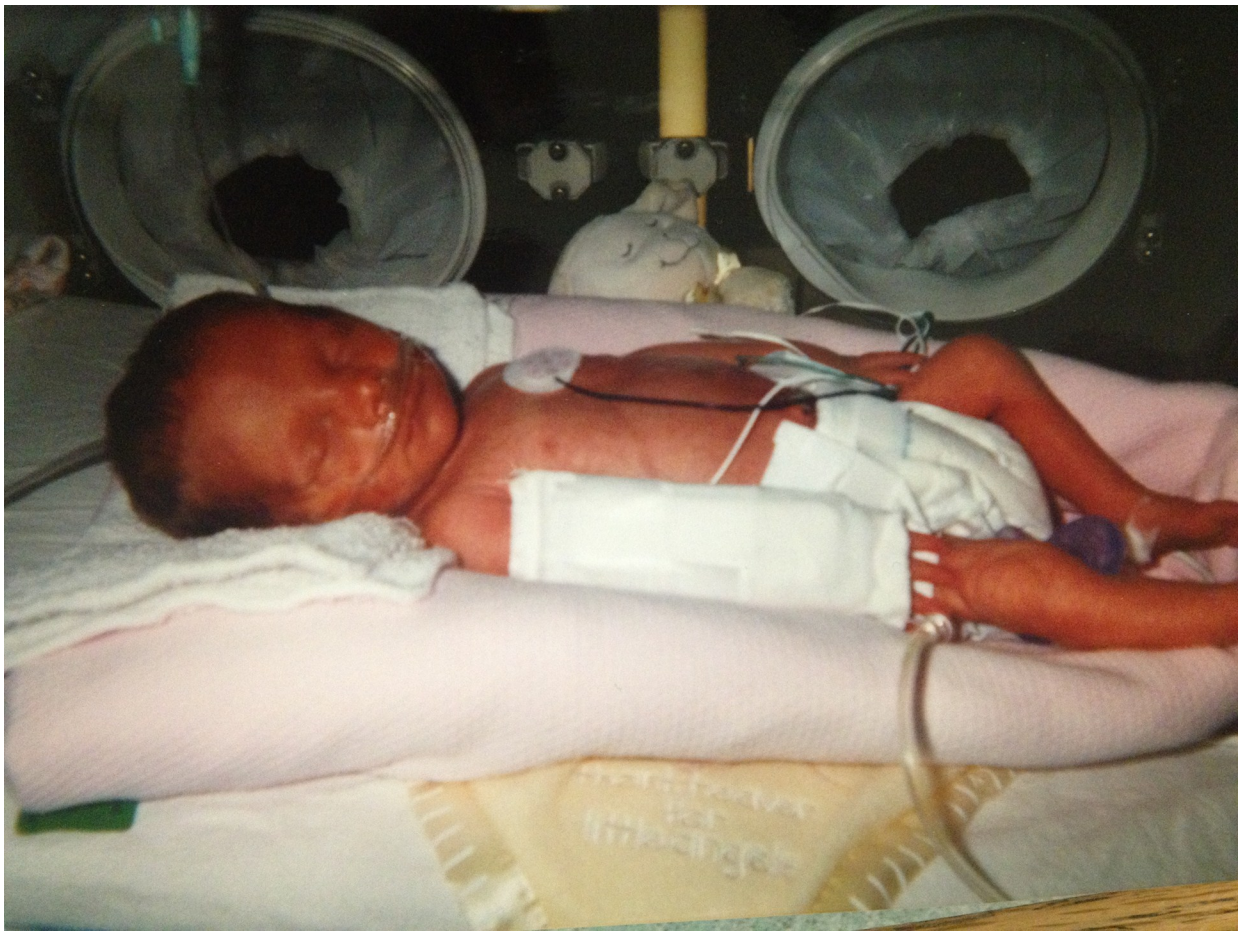
30 – 33 weeks



Appearance and Development

Your baby is 15-16 inches long and can weigh, on average, 3.5 to 4 pounds.

Hearing is fully developed.

Eyes can open and close.

Bones are fully developed.

Lanugo (fine thin hair) is still present but thinning in appearance.

The skin is pale pink and thickening with some peeling.

More muscle tone is developed and baby can keep his arms and legs slightly bent while at rest.

Your baby will be able to hold arms and legs close to the chest and abdomen.

Head control is poor due to weak neck muscles.

Your baby will remain awake and alert for longer periods of time.

Your baby may be seen sucking on hand or fingers.

Baby's 1st Book

Feeding

Infant will have increasing coordination in sucking, swallowing, and breathing.

The environment around you should be calm and quiet while feeding.

Your baby will require feeding that goes down a tube directly into the stomach.

Gag reflex is now present and working.

Rooting reflex is present.

Suckling at mother's breast may be used to prepare your baby for breastfeeding later.

Encourage non–nutritive sucking with pacifier.

Touching

Your baby may awaken to light touch.

Baby will have longer periods of wakefulness.

Touching will be tolerated better without vital sign instability.

Your baby will react to painful procedures by crying.

Interventions

Promote sleep to optimize growth.

Shield light from your baby's eyes.

Talk or read a book to your baby in a soft voice.

Learn your baby's positions of comfort.

Avoid encouraging looking at picture or toys, for your baby may tire from looking at one object.

When your baby is awake, expose him or her to rhythmic sounds, such as singing songs softly.

Move slowly when changing your baby's diaper.

Signs of Stress

Worried face.

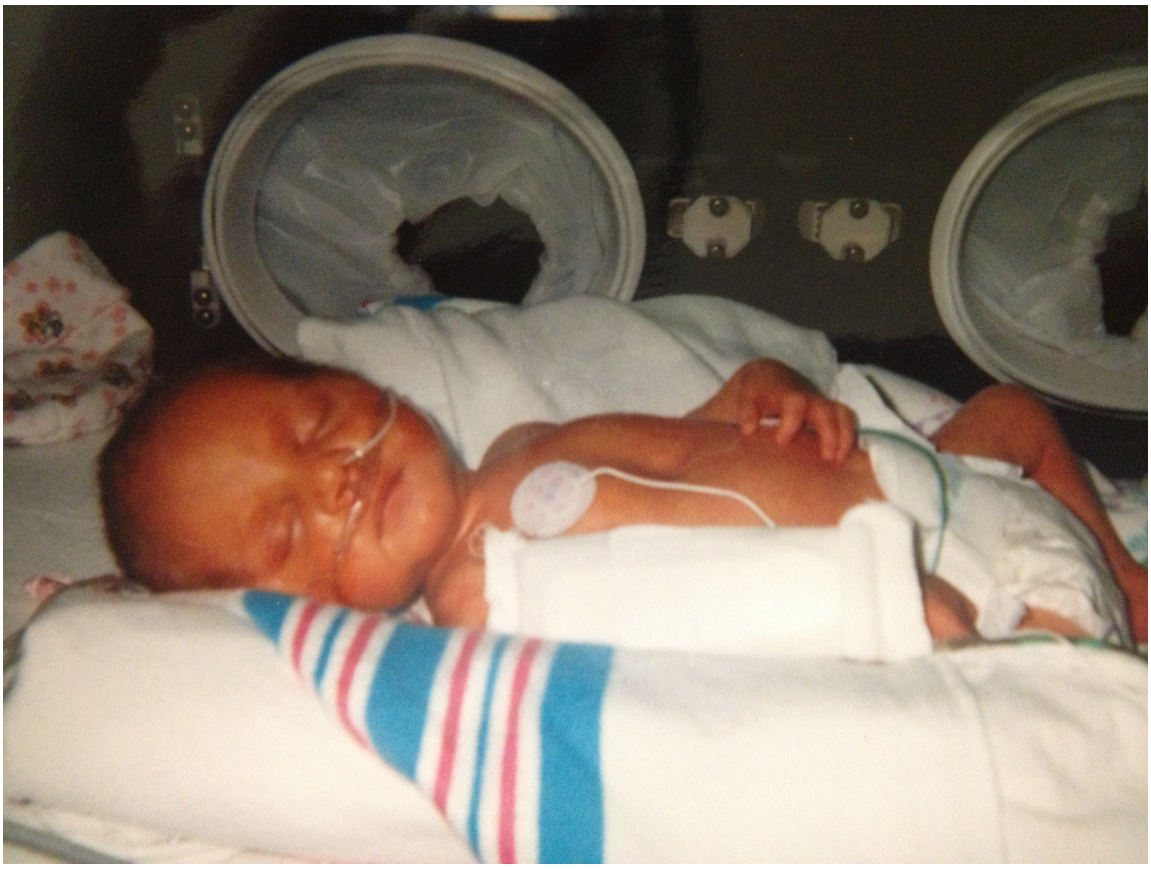
Arching and splaying fingers apart.

Hiccups or yawning.

Avoiding glance.

Change in heart rate or breathing rate.

34 – 36 weeks



Appearance and Development

Your baby will have the slender appearance of a premature baby but his or her neurological development is more advanced.

Senses are fully developed.

Your baby's length is about 18 -19 inches long and weight is about 5-6 pounds.

Skin is pink and pale.

Hair is thick and can be frizzy.

Minimal lanugo (fine thin hair) is present on your baby's body.

Your baby can maintain extremities in a flexed position.

Your baby may sleep 18 to 20 hours a day.

Your baby can recognize his or her parents and be consoled by them.

Baby's 1st Book

Feeding

Feeding patterns of suck swallow and breathing needed to feed are coordinated.

Your baby may still tire easily during feedings.

Breastfeeding

Breastfeeding is encouraged as soon as oral feeding begins.

Moms are encouraged to pump every three hours.

Shield your baby's eyes from light during feed.

Make sure your baby is contained during feed.

Maintain a calm environment when feeding.

Pause to burp infant during feed as needed.

Bottle feeding

Reduce handling and moving infant around during feeding.

Swaddle your baby snuggly in a blanket during feed.

Maintain a calm environment when feeding.

Hold your baby upright to assist him or her in regulating their swallowing.

Keep nipple still – do not wiggle, turn or tap it around.

Pause to burp your baby as needed.

Touching

Prepare to touch your baby with a soft voice.

You can touch your baby in a variety of ways, including rhythmic stroking, steady pressure or patting.

Your baby may bring hands together and place them by their mouth.

Interventions

Shield your baby's eyes from bright lights.

Support your baby's head while holding him or her.

Encourage eye contact for short periods; babies prefer to look at faces.

Use only one form of interaction at a time (for example: rocking, touching or speaking).

Signs of Stress

Change in heart rate or breathing.

Grimacing.

Hiccups/sneezing.

Pale color.

'Stop sign' hand gesture.

Gaze aversion.

Journaling

We invite you to use the following pages to express thoughts and feelings and record significant milestones and special memories of your baby.

Journaling

MY BIG BROTHER PAGE

My Big Sister Page

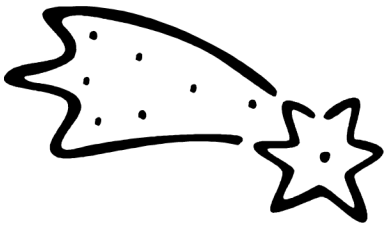
"Today I Weigh"

Weight in Grams Conversion Chart

Ounces \ Pounds	0	1	2	3	4	5	6	7	8	9	10
0	0	454	907	1361	1814	2268	2722	3175	3629	4082	4536
1	28	482	936	1389	1843	2296	2750	3203	3657	4111	4564
2	57	510	964	1417	1871	2325	2778	3232	3685	4139	4593
3	85	539	992	1446	1899	2353	2807	3260	3714	4167	4621
4	113	567	1021	1474	1928	2381	2835	3289	3742	4196	4649
5	142	595	1049	1503	1956	2410	2863	3317	3770	4224	4678
6	170	624	1077	1531	1984	2438	2892	3345	3799	4252	4706
7	198	652	1106	1559	2013	2466	2920	3374	3827	4281	4734
8	227	680	1134	1588	2041	2495	2949	3402	3856	4309	4763
9	255	709	1162	1616	2070	2523	2977	3430	3884	4337	4791
10	284	737	1191	1644	2098	2551	3005	3459	3912	4366	4819
11	312	765	1219	1673	2126	2580	3034	3487	3941	4394	4848
12	340	794	1247	1701	2155	2608	3062	3515	3969	4423	4876
13	369	822	1276	1729	2183	2637	3091	3544	3997	4451	4904
14	397	850	1304	1758	2211	2665	3119	3572	4026	4479	4933
15	425	879	1332	1786	2240	2693	3147	3600	4054	4508	4961

My Birthweight: _____Kilograms _____Pounds _____Ounces

When I Came Home I weighed: _____KG _____Pounds _____Ounces



Hopes, Dreams, Wishes

Dear Baby,

I hope you *learn* _____

I hope you *remember* _____

I hope you *know* _____

I hope you *never forget* _____

I hope you *tell me* _____

I hope you *become* _____

I hope you *grow* _____

I hope you *love* _____

Memorable NICU *Moments*

First time my parents saw me: _____

What my parents first thought of me: _____

Who my parents think I look like: _____

Today you heard me cry for the first time: _____

First time I was held by Mom: _____ Dad: _____

First time my siblings met me: _____

First time my Grandparents met me: _____

First day I was breathing all on my own: _____

First time I breastfed: _____

First time I took a bottle: _____

My parents saw me smile today: _____

Today I went to a "big kid" crib: _____

First time I took a bath: _____

Infant Care Overview

Breastfeeding

Breastfeeding Benefits

- Breastmilk provides:
  - ◊ Protection from illnesses now and in future
  - ◊ Decreasing risk of intestinal infection
  - ◊ Positive impact on your baby's health throughout their life (for example: high blood pressure)
- Emotionally rewarding
- Recommended best nutrition for baby
- Convenient
- Helps mom lose weight, among other health benefits, like reducing risk of breast and ovarian cancers.

Pumping

- If you are experiencing difficulty with latching:
  - ◊ Pump every 2-3 hours
  - ◊ Label each vial with the date and time of collection
- Milk storage:
  - ◊ 4 hours at room temperature
  - ◊ Up to 8 days in the refrigerator
  - ◊ Frozen Milk: (Store in freezer at less than or equal to -4˚F or -20˚C)
  - ◊ Frost-Free Freezer: 3-6 months
  - ◊ Deep Freezer (below 0˚): 6-12 months
  - ◊ Refrigerator Freezer: 2 weeks (do not store on door)
- For a hospitalized baby:
  - ◊ Pump every 2-3 hours, at least 8-12 times/day
  - ◊ You may need to increase frequency if your milk supply starts to decrease

Care of pumping equipment

- Wash equipment in contact with breast milk after each use with dish detergent (do not wash the tubing) and air dry on a clean towel or surface.
- Sterilize pump pieces in boiling water for 5 minutes daily and air dry on a clean towel or surface.

Breast / Nipple Care

- Apply expressed breast milk and allow to dry after feeding or pumping. Breast milk serves as a natural lubricant and can prevent nipples from drying and cracking.
- Air dry periodically after feedings.
- Use Lanolin cream after pumping or feedings for soreness or excessive drying.

Introduction to breast

- Position baby close in football hold or cross cradle.
- Tummy to tummy.
- Baby's chin should touch breast with nose slightly away from breast.
- Support breast with one hand and baby's upper body and head with other hand.

Frequency

- Breastfeed every 2-3 hours until full/satiated, about 8 to 12 times per day. If infant nurses for shorter period of time, mother may need to offer breast more frequently to guarantee infant is getting enough.
- More frequent feedings help to establish and maintain a good milk supply.

Duration and length of feed

- Breastfeed 15 -30 minutes
- Offer 1st breast and allow to empty, then offer second breast
- Some babies may empty the breast quicker, depending on the strength of their suck.
- If feeding lasts short periods, offer breast more frequently.

Use of pacifier/ Bottles or Nipples

- Best to offer breast more frequently.
- Avoid bottles and pacifiers while baby is still learning to breastfeed.
- Use store-bought pacifiers only.

Burping

- Burp after each breast and at end of feeding.
- Burping can help wake baby and encourage breastfeeding on both sides.
- Babies usually need to burp more often once supply has been established.

Breastfeeding a Home

- Keep baby close to you.
- Follow feeding cues.
- Offer breast frequently to establish good supply.
- Pump if your baby is not latching on well.
- Call the breastfeeding helpline at 216-778-3337 if you are having trouble breastfeeding, pain with feeds, your milk supply drops, etc. Your call will be returned within 12-24 hours.

Formula Feeding

Formula Feeding: Type and mixing

- See insert of formula container for preparation of formula.
- A mixing instructions pamphlet will be located in your discharge folder .

Mixing and Preparation of Formula

- Boil city water for 1 minute and cool before use, or commercially available nursery water is to be used in formula preparation.
- Recommend boiled or Nursery water until 3 months of age or 3 months corrected age for premature infants.

How Much to Feed and How Often

- Feed as ordered by physician and instructed by discharge nurse.

Diapering

Diapering

- Change frequently to prevent diaper rash.
- Cleanse buttocks with mild soap and water, rinse well after each stool. For baby girls, be sure to wipe from front to back.
- Avoid diaper wipes with large amounts of perfume or alcohol.
- Leave diapers off for short period to allow bottom to air dry.
- Non-prescription medications like Aquaphor or A and D ointments may help prevent diaper rash.

Normal Urine and Stool Patterns:

- 6 – 8 wet diapers/day (after 1st several days of life)
- Normal bowel movements vary in the newborn:
  - ◊ Frequency depends on whether formula or breast fed.
  - ◊ Baby may have bowel movement with every feed or 1- 2 times/day.
  - ◊ In the first 2 days of life, a newborn's stool color is usually a dark brownish green.
  - ◊ After that, color may vary from bright yellow (breast milk stool) to a yellow green (formula stool).
  - ◊ If your baby is passing frequent large watery stools, he or she may be having diarrhea; call your healthcare provider.
- Hard dry stools are not normal and if they occur, contact your healthcare provider.
- Do not give juice or water unless instructed to do so by your healthcare provider.
- Formula does not cause constipation, so do not change formula without talking to your healthcare provider. (ie. Changing to low iron formula may pose risk of anemia.)

Temperature

- If possible, use a digital thermometer.
- Take under armpit; gently cover arm over the thermometer for 5 minutes or until done.
- Call physician for temperature above 100.4° F (or 38° C) or below 97.9° F (36.6° C).
- DO NOT GIVE TYLENOL unless directed to do so by your healthcare provider.
- Rinse thermometer with soapy water after each use.

Bathing and Water Temperature

- **Never** leave your baby unattended in or around water.
- **Always** test the temperature of water before placing your baby in it; use a bath thermometer, or your wrist, if unavailable.
- Give sponge bath with washcloth, soap and water until your baby's umbilical cord falls off.
- Don't use oils, lotions or powders.

Developmental Care

- Provide stimulation; allow for supervised tummy time while awake.
- Monitor developmental milestones.
- Hold infant skin to skin to provide for bonding. (Kangaroo Care)

Bulb Syringe

- Depress bulb before insertion into nose, release to obtain secretions; repeat to empty onto cloth/tissue.
- Rinse with warm soapy water and allow to dry after each use.
- Never force bulb syringe into nose.

Umbilical Cord Care

- Notify your healthcare provider if you baby's umbilical cord has bleeding, a foul smell or pus-like discharge.
- Keep diaper turned down below cord.
- Cleanse with soap and water when cord becomes soiled.
- Avoid bath until umbilical cord falls off.
- Do not apply alcohol to cord (unless instructed to do so by healthcare provider).

Care for Baby Boys

Circumcision Care

- A whitish-yellow film may develop while healing; **do not wipe off.**
- If site bleeds, hold gentle but firm pressure with clean cloth until bleeding stops.
- If site continues to bleed, call your healthcare provider. If circumcision site is bleeding profusely, call 911 or go to the emergency room.
- Call your healthcare provider about any unusual drainage.
- Keep the area clean with soap and water.
- Use petroleum gauze for the first 1-2 days on the head of the penis to keep from sticking to the diaper.
- Avoid tub bath until healed; should heal within 7-10 days.

Care of uncircumcised male

- Clean area regularly with diaper changes
- Foreskin will not separate until 3 or 4 years of age. At this time, your healthcare provider will instruct you on hygiene.

Sleeping

Sleep patterns

- Infant may sleep for a large portion of the day.
- Sleep patterns may vary with each individual baby.
- Your provider may instruct you to wake baby for feeds, especially premature babies.

Sleep Position

- All babies must be placed on their backs to sleep, preferably using a sleep sack.
- Have dedicated safe place for baby to sleep (cradle, crib or bassinette) and a firm mattress to prevent suffocation.
- **DO NOT**:
  - ◊ Sleep in the same bed with your baby
  - ◊ Use crib bumper pads
  - ◊ Bundle your baby
  - ◊ Keep toys in sleep space
  - ◊ Put your baby to bed with a bottle
- **Sleep space should remain free of any objects.**

Safety Needs and Abduction Prevention

While in the hospital:

- An ID bracelet will be on baby; band numbers will be checked often and when re-uniting you and baby to assure a match.
- Only allow employee with a pink badge to take your baby from you.
- Your baby will be monitored with an electronic bracelet (not all babies in NICU).
- Always ask your nurse if you have any questions about other personnel that want access to your baby.

When at home:

- Home visit nurses, or other healthcare providers, should have a scheduled appointment and have an ID badge on. They should not come into your home without these things; always check their identification.
- Never allow anyone in your home if you don't know them well.
- Never leave baby alone with a stranger or new friend.
- Do not place birth announcements/outside home decorations. (This may draw unwanted attention from strangers).

Car Seat Safety

- Car seat should be in a rear-facing position in the middle of the back seat.
- An infant-only or convertible seat with 5-point belt system is recommended.
- For premature babies, see the American Academy of Pediatrics (AAP) recommendations for car seats.
- Harness straps of car seat should be snug with clips at armpit level.
- Secure the seat with safety belt or the LATCH system.
- Infant should be at a 45 degree angle in the seat.
- **Never** place infant in the front seat. The front seat is never recommended for car seats, even if an air-bag is not in use.
- Call 1-866-seat check or visit www.Seatcheck.org to find a seat inspection site near you.
- Have your family watch a car seat safety video.

Around the House

Safety Precautions

- Install a working smoke detector; replace batteries every 6 months.
- Keep all poisons in original containers and locked in a cabinet.
- Lock all medicine cupboards.
- Plastic bags should be stored away to avoid suffocation.

Temperature of home

- Check your baby's temperature during the 1st several nights at home to make sure he or she is adjusting to the new environment.
- Do not over bundle or use additional blankets; use appropriate type of sleep sack for seasonal temperature control.

Noise

- Your baby's hearing remains sensitive; do not place an infant in close proximity to television or speakers.

Smoking

- Avoid exposing your baby to **any kind of smoke**; do not allow smoking in your house, car, or any place you and your baby are visiting.
- Do not use blankets or clothing that smell like smoke.

Jewelry

- Do not pierce your baby's ears until after 3 months of age; ear infections can spread to the rest of body.
- Do not allow your baby to wear jewelry of any kind to avoid strangulation or injury from twisting around his or her hands, fingers or necks.

Sibling/Pet rivalry

- Include other children in your baby's care. Spend special time with them alone.
- Supervise small children with the new infant.
- Always remain with your baby when pet is present. N**ever leave your baby alone with a pet,** as they can be injured by a pet even by mistake
- Do not let a pet sleep in the same room with your baby.
- Keep bottles and toys away from pets.
- Introduce your baby to a pet by letting the pet smell a blanket/piece of clothing with baby's odor before bringing infant home.
- **Always** wash hands after handling your pet and before touching your baby.

What Visitors Should Know

- No smoking in the home/car/small spaces where infant is/will be.
- All visitors **must** wash hands before handling infant.
- Family and friends that are sick should stay away.

Outings

- **Avoid** crowds, malls and parties until baby is older with a more developed immune system, especially during the winter and flu season
- Avoid the outdoors on rainy, windy, very cold or very hot days for extended periods; protect baby appropriately from weather.
- **Never leave your baby unattended** in a car, grocery cart, bath tub/swimming pool, etc.

Keeping Your Baby Healthy

Giving Prescribed Medications

- Give only as directed. If you have questions about dosing or times, contact your pediatrician.
- Never skip a dose, unless directed to do so.
- Never give extra dose for missed dose unless directed to do so.

Illness

- Hand washing is the best way to prevent illness. Ask everyone around the baby to wash their hands frequently, especially after using the bathroom, sneezing, coughing, blowing their nose, etc.
- The following may be early signs of illness:
  - ◊ Working hard to breath
  - ◊ Flushed/ bluish grey color
  - ◊ Not feeding well / fewer wet diapers
  - ◊ Drowsy, decreased activity level
  - ◊ Listless/limp sunken eyes
  - ◊ Fever over 100.4 Fahrenheit
  - ◊ Eye redness, pus or eye tearing
  - ◊ Runny nose, cough
  - ◊ Blood or pus in babies bowel movement or diarrhea
  - ◊ Very fussy/ hard to console
  - ◊ Jaundice (yellowing of face and body)
  - ◊ Vomiting more than once

Indications to call 911

- Unresponsive
- Difficulty breathing / not breathing; change in normal color to blue/dusky
- Home apnea monitor continuously alarming
- If instructed to call after talking to the MH Line (216)778-7878 or NICU Fellow

Play/ Tummy Time

- Allow for supervised time for baby lying on their tummy:
  - ◊ Remember, **you must stay** with them during this time.
  - ◊ If your baby falls asleep, place on his or her back in a safe sleep space.
- Observe your baby for developmental milestones.

Shaken Baby Syndrome

- Never shake your baby. Shaking can damage an infant's brain, which can be fatal.
- Pick up and console your baby when he or she cries. Don't let your baby "cry it out."
- If crying is getting on your nerves, put the baby down in a safe place, calm down, take a few deep breaths, and then pick up and console your baby.
- Call a friend or family member to come over if you need help.

Infant Supplies

Before going home, make sure you have the following items (or a plan to obtain them):

- ◊ Formula/Bottles (if not breast feeding)
- ◊ Diapers
- ◊ Clothing
- ◊ Car seat
- ◊ Crib/bassinette

Discharge Tests

Sleep Study

In an infant sleep study, a baby is placed on a specific monitor to watch if the baby is having drops in his or her heart rate, periods of not breathing and/or periods of low oxygen levels. The results let your baby's doctors know if he or she should go home on a monitor. A home apnea monitor will be placed on an infant prior to discharge if he or she has an abnormal sleep study or is at high risk for breathing pauses with decrease in heart rate.

Car Seat challenge

A car seat challenge will be performed on all preterm infants (<37 wk at birth) prior to discharge.

- This will last at least 1 hour.
- The baby will be placed in a car seat 1 hour after feeding.
- Vital signs will be checked every 15 minutes.
- The baby will be assessed for desaturation (drop in oxygen levels in body) and bradycardia (drop in heart rate).

Developmental Follow-Up Clinic

MetroHealth Medical Center's 49-bed, Level III Neonatal Intensive Care Unit (NICU) serves patients from Cuyahoga County, as well as from the larger five-county region (Cuyahoga, Lorain, Geauga, Lake, and Ashtabula). The Special Care Developmental Follow-Up Clinic (SCC) is a multi-disciplinary clinic that serves many of the outpatient needs of our high-risk NICU 'graduates.' We also accept high-risk patients from outside institutions and physician offices on a consultation basis.

The SCC is staffed by board-certified neonatologists, Neonatology Fellows, a Neonatology Nutritionist, Clinic Coordinator, physical and occupational therapists, social workers, and home monitor technicians. This multi-disciplinary approach allows the MetroHealth team to deal with a broad range of medical and social issues for the patients and their families utilizing a 'one-stop shopping' concept. We also serve as a liaison with the patient's primary care provider and other sub-specialists (such as ophthalmologist, audiologist, surgeon, pulmonologist, neurologist, cardiologist, etc.).

The SCC is designed to track those NICU 'graduates' who are considered high risk. This includes babies with the following diagnoses: birth weight less than 1500 grams (VLBW: Very Low Birth Weight), brain abnormalities such as intraventricular hemorrhage (IVH) or periventricular leukomalacia (PVL), chronic lung disease (receiving home oxygen therapy), extensive resuscitation at birth, pulmonary hypertension, apnea of prematurity discharged on home cardiorespiratory monitors, and others considered at-risk for developmental delays.

Patients are scheduled into the SCC at the time of their NICU discharge.

To schedule an appointment, please call our NICU Discharge and Clinic Coordinator, at 216-778-3882.

Going Home

Your baby's discharge is what you have been working towards since your baby's birth. We have certain criteria your child needs to meet before being discharged from the NICU.

- We need a phone number where you can be reached. This is important, as we will need to schedule follow up Home Health nursing visits, as well as arrange for any equipment delivery as needed. If you do not have a phone, please leave a name and number for a close friend or relative that we may contact to reach you if needed.

- Please contact your health insurance provider within 30 days of your child's birth. They will be able to answer any questions regarding healthcare concerns.

- Provide the name of the pediatrician you wish to follow up with. If you do not have a pediatrician, we can help you find one. Appointments will be scheduled prior to discharge.

- Hepatitis B vaccine should be consented and given.

- Your infant will be moved into a bassinette prior to discharge and will need to be able to maintain a normal body temperature of greater than 36.5 C or 97.7 F.

- Prescriptions for medications can be given to you or sent to our pharmacy to be filled prior to discharge. Parents need to understand the medication and show competency with giving it prior to discharge.

- Newborn blood screening tests and hearing screen should be completed.

- Infant should be able to complete feedings within a 30-minute period and show appropriate weight gain.

- Home cardiorespiratory monitor teaching must be completed if infant is to go home on a monitor.

Going Home

Fall and winter seasons bring with them a higher risk for respiratory viruses. One of the most common of these viruses is **RSV** (Respiratory Syncytial Virus). **RSV** usually causes only cold like symptoms in older children and adults, but can make premature babies and those with chronic lung disease very sick.

Fortunately there is a medication called **Synagis** that can help prevent **RSV** infection in babies at risk. **Synagis** is given intramuscular every month from November through March. Your child must be less than 35 weeks gestation at the beginning of **RSV** season to qualify. Referrals for **Synagis** therapy will be made by your NICU team. In most cases a home care nurse will administer these monthly injections in the home.

For questions regarding **Synagis** Injections, **please call 216-778-3882.**

Going Home

- Car seat and CPR videos should be viewed and all discharge teaching should be completed.
- If your infant meets specific criteria, a follow up at the Special Care Follow-Up Clinic located at Metro-Health Medical Center will be arranged prior to discharge.
- WIC prescriptions will be completed and ready at time of discharge.
- Eye exams will be completed and follow-up appointments will be scheduled as needed.
- Circumcision will be completed as requested prior to discharge.

Congratulations!

We congratulate you on completing your journey through our NICU. We thank you for allowing us to share in the birth of and participate in caring for your child. We feel privileged to have been a part of your lives and wish you the best. Please feel free to visit and send pictures of our NICU graduates for we will miss them and love to see how they grow.

Sincerely,

The MetroHealth Medical Center NICU Staff

This book was created with help from the MetroHealth NICU team.

Special thanks to:

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Mary Jo Novosel, RN
Emily Saunders, RN, BSN
Connie Eggleston, RN, BSN, MSM
Julie Medas, RN, MSN, Neonatal CNS