

Survival

Survival outcomes in Pediatrix Medical Group affiliated NICUs by estimated gestational age and birth weight* are detailed in the chart below. In addition to gestational age, other factors such as growth in utero and presence of congenital anomalies may affect survival.

Weight Group (gm)	23	24	25	26	27	28
250 to 500	26.1%	40.0%	51.9%	48.8%		
501 to 750	37.4%	61.2%	76.8%	86.4%	86.0%	93.9%
751 to 1000		65.8%	83.3%	91.7%	93.5%	95.0%
1001 to 1250				92.6%	94.8%	97.7%
1251 to 1500					92.2%	97.9%
1501 to 1750						100.0%
Overall for EGA	35.2%	59.9%	78.8%	89.0%	92.2%	96.7%

Neurodevelopment

Babies born extremely premature are at higher risk for developmental disabilities like cerebral palsy (spastic muscles) and learning disabilities or mental retardation. Bleeding in the brain while in the NICU increases this risk, but problems can also occur in the absence of bleeding.

Disability is often described as mild, moderate or severe. Definitions can be found below:

Mild disability: Learning disabilities, mild impairments such as need for glasses. Autism and attention deficit hyperactivity disorder (ADHD) are more common in premature babies.

Moderate disability: Reasonable independence likely, may have some spastic muscles, but can walk with help, possibly lower IQ, hearing loss corrected with hearing aid or impaired vision without blindness.

Severe disability: Potentially dependent on caregivers, may be unable to walk or control muscles, very low IQ, possible deafness or blindness.

*The outcomes of 110,640 non-anomalous neonates born at, cared for in, and discharged from 261 hospitals in 32 states from 2010 to 2011. Estimated gestational age range was 22 to 42 weeks. Birth weight range was 0.3 to 6.0 kg. For calculations the minimum cell sample size was 20 patients. Data on outcome of infants more than 31 weeks is not presented as their percent survival and percent survival without morbidity approached 100%. These numbers represent an estimate. The likelihood of a good outcome is influenced by many variables, only two of which are estimated gestational age and birth weight.

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What does this mean for my baby and my family?

Many babies in the NICU go on to develop normally. However, they are considered to be at a higher risk for developmental difficulties. It is hard to predict which babies will have difficulties. In order to help your baby reach his or her maximum potential, he or she will be followed by developmental specialists while in the NICU and once discharged from the hospital.

During these visits, the developmental specialist will administer specific developmental tests to track and evaluate your baby's progress to help identify any developmental difficulties early. Identifying these difficulties early is the best step you can take to help your baby reach his or her full potential. The specialist will also provide you with ideas for activities at home designed to promote your baby's development. Typically, your baby will be seen in the follow-up clinic every four to six months. This schedule may be adjusted based on your baby's specific needs.

Resources

Although everyone copes with grief and stress differently, it may be helpful to seek the support of family, friends, counselors, clergy members and parent support groups throughout this time. Don't be afraid to ask questions, seek help and advocate for yourself and your family.

In the NICU: The medical team, nurses, social workers, spiritual advisors, parent support groups, psychiatry, NICU advisory mentoring groups, clinical ethics consultations as well as friends and family are some of the support resources that may be available while in the NICU.

After Discharge: Your baby will be evaluated at San Antonio Pediatric Developmental Services for any mental or physical problems, and if present, your baby will be referred to specialists who can help. These include physical and occupational therapists, hearing, speech and vision specialists. Visit sadevelopment.pediatrix.com for more information as well as additional resources.

Despite medical problems, national self-surveys and parental surveys of babies born preterm show that most babies who survive to go home can be very happy and well adjusted.

Extreme Prematurity

23-28 Week Gestational Age



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What to expect at delivery

Facing the possibility of preterm delivery can be overwhelming. You may feel frightened, sad, angry or confused. Everyone copes in their own way, but it may be helpful to know that you are not alone.

Neonatology team: The team caring for your baby after birth will include a neonatologist who oversees care. Additional team members may include: other physicians and subspecialists, neonatal nurse practitioners, nurses, lactation consultants, respiratory therapists, physical therapists, speech therapists, occupational therapists, nutritionists, pharmacists, social workers and case managers.

What happens at birth: At birth, the neonatology team will dry and warm your baby, and then check his or her heart rate, breathing, oxygen levels and movement. A breathing tube may be placed to help your baby breathe. Some babies will receive a medicine called surfactant in the delivery room. This medication helps keep the lungs expanded so your baby can breathe.

It is important to realize that even with our best efforts, your baby may not respond to resuscitation. We will keep you informed and will provide care as gently and comfortably as possible.

Resources: In addition to your medical and personal support teams, ethics consultations and spiritual advisors are available. They are able to provide comfort, listen to your concerns and, along with your medical team, help you make important health care decisions.



This is a picture of a baby born at 23 weeks gestation.
* Cover picture is of a baby born at 25 weeks gestation.

What to expect in the Neonatal Intensive Care Unit (NICU)

We encourage parents to participate in the care of their baby and believe babies benefit from parental touch.

Because the organs in your baby's body are very immature, certain issues may arise as the baby grows and develops in the NICU.

Nutrition: Breast milk is important to the survival of your baby and is a "medicine" that only the mother can provide. If breast milk is available, we will use it when feeding your baby. If breast milk is not available, donor breast milk may be recommended for some babies. We will discuss your baby's nutrition options and the benefits of breast milk, and answer any questions you may have.

Babies who receive breast milk are at a lower risk for necrotizing enterocolitis (NEC), sepsis, retinopathy of prematurity (ROP), suppressed immune systems, developmental complications and other illnesses that may require hospitalization. Your baby will receive intravenous (IV) nutrition at first and then may slowly gain the strength to feed on his or her own. Early feedings will be given by a tube that goes from the mouth or nose into the stomach. Most babies begin to breast or bottle feed around 34-35 weeks.

Breathing: Difficulty breathing, called respiratory distress syndrome (RDS) occurs in almost all babies born this early. Many get better over time, but sometimes the lung problems persist. During the hospital stay, most extremely premature babies require a breathing machine (ventilator) for some period of time. Some babies need extra oxygen or even long term ventilation when they go home.

Pauses in breathing, called apnea, occur in most extremely preterm babies. Apnea usually goes away as the baby matures. Some babies need caffeine or breathing support to help them through this problem.

Heart murmur: Extremely premature babies may have a heart murmur called patent ductus arteriosus (PDA). The murmur may go away on its own, or might require medication or surgery, depending on its severity.

Anemia: Anemia, or low blood count, is very common in most babies born this early. Some babies may require treatment for their anemia which can include blood transfusions and/or medications.

Infection: Life threatening infections (sepsis) can occur in extremely premature babies during their NICU stay.

Vision: Blood vessels in the eyes may grow abnormally, which is known as ROP. To help prevent vision problems or blindness, some extremely premature babies may require surgery or medical treatment.

Brain: The brain triples in size from birth to discharge. Bleeding in the brain can occur in some babies born with extreme prematurity. Bleeding may contribute to brain damage and may increase the risk of later developmental problems. One third of premature babies without brain bleeding also have developmental problems as they get older.

Hearing: Before leaving the NICU, your baby's hearing will be screened. Some babies will require additional follow-up with an audiologist once discharged from the hospital.

Intestines: Some extremely premature babies may develop a life threatening intestinal problem called NEC. Treatment for NEC includes medical management or surgery.



Going Home

Before leaving the NICU, your baby must be able to stay warm in a crib, eat and breathe safely, and grow. Each baby is different in how long that takes. Most extremely premature babies are ready to go home around their due date.



Long-term Medical Issues

Some complications of being born early can last throughout life, but usually problems are most severe early on. After going home, most preemies require special medical care for at least a couple of years. Re-hospitalization for medical problems is common in the first two years of life.

To learn more, please visit our website at www.pediatrix.com/sanantonio and click the Parent Education tab.