

Neonatal Abstinence Syndrome

A Guide for Families







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What is Neonatal Abstinence Syndrome?

Neonatal Abstinence Syndrome (NAS), or Newborn Withdrawal Syndrome, is a group of symptoms that occur in a newborn whose mother had a dependency on narcotics during pregnancy. These and other substances pass from the mother through the umbilical cord and placenta to the developing baby in the womb. The baby develops a dependency on narcotics while in the mother.

Because the baby is no longer getting the drug after birth, the sudden stopping of these substances can result in withdrawal symptoms in the baby.

Common medications, drugs or substances that are linked to NAS are: amphetamines; codeine containing medications including Tylenol #3, heroine, Hydrocodone, Methadone, Percocet, Subutex/ Suboxone, Tussionex and Vicodin.

It is extremely important to tell your doctor or nurse about all medications, drugs or substances (prescribed and non-prescribed) that you were taking throughout your pregnancy. Please keep in mind this also includes nicotine (smoking), alcohol, marijuana and caffeine consumption. If your baby is considered at risk, your doctor may send their umbilical cord and their first urine to the lab for further testing to determine how best to care for your baby. The American Academy of Pediatrics has recommended the opioid-exposed infants be observed for three to seven days before discharge.

Symptoms of NAS

Not all exposed babies will show signs of withdrawal. However, common symptoms of withdrawal for full-term babies include:

- Irritability (excessive crying)
- High pitched crying
- Trembling/Jittery
- Difficulty sleeping
- Tight muscle tone
- Difficulty feeding and sucking
- Hyperactive reflexes
- Yawning, stuffy nose and sneezing
- Vomiting (or overfeeding)
- Diarrhea
- Sweating
- Fever or unstable temperature
- Poor weight gain
- Fast breathing
- Skin breakdown, particularly in the diaper area or face
- Seizures

Most babies with NAS show signs of withdrawal within 24 to 96 hours after birth. However, withdrawal symptoms can occur up to six weeks after birth. If exposure to any of these substances has occurred, an infant will be monitored in the hospital for two to five days. If withdrawal symptoms are detected, a baby's hospital stay will be extended and he or she may be transferred to the Neonatal Intensive Care Unit (NICU) to begin medication to treat the symptoms of withdrawal. If a baby is moved to the NICU, the mother will be able to stay with her baby during this transition time.



NAS Scoring (Modified Finnegan Score)

NAS scoring is a tool we use to grade the level of withdrawal symptoms. Scoring is performed every two to four hours by a nurse who will collect scores using the point system included in this book. Infants at risk for narcotic withdrawal should not be awakened unless they have been asleep for more than four hours. They may be fed before they are scored and calmed prior to assessing muscle tone and respiratory rate. We encourage mothers to ask their nurse how to check their baby for signs of withdrawal so you can complete the scores together.

System	Signs and Symptoms	Score
Central Nervous System Disturbances	Excessive high pitched cry	2
	Continuous high pitched cry	3
	Sleep Cycle	
	Sleeps < 1 hour after feeding	3
	Sleeps < 2 hours after feeding	2
	Sleeps < 3 hours after feeding	1
	Reflexes	
	Hyperactive Moro Reflex	2
	Markedly Hyperactive Moro Reflex	3
	Tremors	
	Mild tremors when disturbed	1
	Moderate-severe tremors when disturbed	2
	Mild tremors when undisturbed	2
	Moderate-severe tremors when undisturbed	4
	Increased muscle tone	2
	Excoriation (Skin picking of chin, knees, elbow, toes or nose)	1
	Myclonic jerks(twitching/jerking of limbs)	3
Generalized convulsions (seizures)	5	
Metabolic/Vasomotor/ Respiratory Disturbances	Sweating	1
	Hyperthermia (37.2 - 38.3° C)	1
	Severe Hyperthermia > 38.4° C	2
	Frequent Yawning (>3-4 times/scoring interval)	1
	Mottling (spots or patches of color)	1
	Nasal stuffiness	1
	Sneezing (>3-4 times/scoring interval)	1
	Nasal Flaring	2
	Respiratory rate > 60/min	1
	Respiratory distress > 60/min with retractions	2
Gastrointestinal Disturbances	Excessive sucking	1
	Poor feeding (infrequent/uncoordinated suck)	2
	Regurgitation	2
	Projectile vomiting	3
	Loose stools	2
	Watery stools (water ring in diaper)	3
Total score		

How You Can Help Your Baby



Your baby will need a lot of attention in the beginning. He or she may be fussy and hard to calm, but don't give up on comforting your baby. You have everything your baby needs.

It can be stressful to have a baby who cries a lot. Many parents describe the time their baby spends in withdrawal as an emotional rollercoaster. We understand that this is a very stressful and emotional time for you. Take comfort in knowing that we all have the same goal to help you and your baby through the withdrawal period so you can go home as soon as possible. Ask friends and family for help so that you get the breaks and the support you need.

One of the best things that you can do for your baby is to keep him or her with you at all times. This is called "rooming in." Being close to your baby helps you respond quickly to your baby's needs such as hunger or needing to be held when fussy. Your baby will feel most comfortable by being close to you. This will help you offer reassurance, love and safety. For comfort, hold your baby skin-to-skin (naked in a diaper against your skin) or gently swaddled in a blanket. Pay careful attention to how you position your baby during feeding and settling down. During your time in the hospital, your nurse will show you how to do this. A baby's nervous system is sensitive, so keep the environment quiet and calm. We recommend limiting visitors in the first few days of life. Infants can be comforted with dim lights, a quiet room, minimal stimulation and other techniques such as swaddling and skin-to-skin contact. This provides a comfortable environment for your baby.

Key actions to help your baby:

- Dim the lights in the room
- Provide numerous skin-to-skin opportunities
- Breastfeed often
- Cuddle and hold frequently
- Staying close to your baby
- Continually holding and swaddling your baby
- Keeping an environment that is quiet and calm by limiting visitations and noise

Environmental Care: Soothing an Upset Baby

Your baby will tell you “I’m upset” by:

- Yawning
- Sneezing
- Having tremors (shaking)
- Showing color changes (pale or blue skin color)
- Frowning
- Looking away
- Closing their eyes

If you see the above cues, stop what you are doing and:

- Hold your baby skin-to-skin or gently swaddle in a blanket.
- Hold your baby on your chest or on your arm laying on his or her side.
- Let your baby calm down before trying anything new.
- Gently rock or sway your baby side-to-side (back and forth). If your baby is still crying, place your baby’s swaddled back against your chest. Hold your baby in a curled C-position facing away from you. Place your hand on your baby’s chest and sway your baby gently from side-to-side. Facing a blank wall may also help calm down your baby.

Do the curled c-shape facing away position

- Let your baby’s back rest against your chest so that his/her head is supported.
- Place one arm under his/her bottom.
- Place the other arm across his/her belly or chest.
- Make sure that the baby’s head remains supported by your chest.
- If you’re sitting down, then you can place the baby on your lap. This is great to do in a rocker.



Gentle rocking and swaying are good soothing techniques, but never shake your baby. It is important to know that your baby’s cry may be overwhelming at times, but it is normal to feel this way. Never hold anything over your baby’s mouth or nose in hopes that it will stop the crying. If your baby is making you feel stressed, place your baby in a safe place such as the bassinet or crib and take a break somewhere in your home. You can also call a friend, family member or your baby’s health care provider for help and support.

Ways to Support and Care for Your Baby

Controlling your baby's environment:

- Keep your baby's room quiet with dim lights.
- Maintain a routine.
- Limit visitors so your baby does not get over-stimulated.
- Swings and rocking cradles may comfort your baby.

Gently introduce new things to your baby one at a time:

- Introduce new stimuli (things that cause your baby to be alert) one item at a time.
- Watch your baby's cues and if needed, allow a "time out," a quiet time without stimulation.
- Swaddle your baby and try a pacifier to help your baby maintain an alert and calm state.
- Add visual sight, auditory (sound) and touch stimuli when your baby is calm.
- Look for cues as to how well he or she can tolerate the new stimuli.
- Know that your baby's ability to handle new stimuli may vary from minute to minute and day to day.
- Limit visitors so your baby does not get over-stimulated.

As your baby's calm periods increase, unwrap your baby for short periods of time. This allows your baby to become used to controlling his or her own body. Re-swaddle your baby if he or she shows signs of distress.





Can I Breastfeed My Baby? - YES

Breastfeeding is best for your baby. If you are on a medication like Methadone, Subutex or Suboxone that your doctor has prescribed for you, the baby will get small amounts of your medication through the breast milk. This is generally considered safe and may help reduce withdrawal symptoms. Breastfeeding is beneficial for all babies but for a baby with withdrawal it is even more important. The closeness of breastfeeding offers a baby comfort and reassurance. Studies have consistently shown that infants with NAS who are breast-fed tend to have less severe symptoms, require less pharmacologic treatment and have shorter length of stay than formula-fed infants.

It is very important that you not take any other medications while breastfeeding unless your baby's doctor says the medicine is safe. **If you will be using illegal or recreational drugs, or drugs that are not prescribed to you it is best that you do not breastfeed.** This is because the dangers are too great for your baby. If you are on a medicine called methadone or buprenorphine (Subutex or Suboxone), it is important that you do not stop breastfeeding suddenly. When you are ready to wean, stop or decrease breastfeeding, talk to your baby's doctor as it is best to do this slowly. Your doctor can teach you ways to do this safely.

Treatment with Medication

Sometimes environmental cares are not enough. If your baby scores eight points or higher, the nurse will ask the doctor to evaluate your baby, and the nurse will continue to monitor your baby for NAS and any other symptoms. If your baby's score is eight or higher on three occasions, or 12 or higher on two occasions, your baby is likely having problems with NAS and may need treatment with medicine. The doctor will transfer your baby to the NICU to receive small doses of oral Morphine.

It is important to understand that each baby responds differently to Morphine. The dose of Morphine needed will depend on your baby's NAS scores and birth weight. Morphine will be given to help reduce the symptoms of NAS, as well as the risk for having seizures (convulsions). This medicine will help calm your baby and keep them comfortable, but should not make your baby overly sleepy. If we are unable to control your baby's withdrawal with Morphine alone, other medications may be used.

Your baby will need to stay in the hospital until he or she is able to be weaned off Morphine. There are many factors that determine your baby's length of withdrawal. Babies exposed to multiple medications typically take longer to go through the withdrawal process. Genetics and being exposed to smoking during pregnancy can also have an impact on determining the length of withdrawal. NAS can last from one week to a few months, but the average length of stay in the NICU is three to four weeks. It is still very important to continue environmental cares.

What happens when my baby is given Morphine?

- Morphine will be given to your baby to reduce the symptoms of NAS.
- Morphine will also reduce your baby's risk for having seizures (convulsions)
- Morphine will make your baby more calm and comfortable but should not make your baby overly sleepy
- Each baby is different in how they respond to Morphine.
- The dose of Morphine needed will depend on your baby's NAS scores and birth weight.



Who Will Care for My Baby?

A team of healthcare providers will work with you to provide the best care for your baby.

This team includes:

- **Neonatologists and Pediatricians:** Doctors who have special training in the care of newborns.
- **Neonatal Nurse Practitioners:** Advanced practice nurses who have special training in caring for newborns.
- **Nurses:** Provide 24 hour care for your baby.
- **Case Managers:** Help with referrals and community resources.
- **Medical Social Workers:** Help with issues at home.
- **Lactation Consultants:** Help with breastfeeding and pumping.
- **Respiratory Therapists:** Help with your baby's breathing needs.



When Can I Take My Baby Home?

Your baby's medical team will help decide when it is safe for your baby to go home.

Your baby is ready to go home when he or she:

- Has completed monitoring for withdrawal without significant symptoms for three days without the need for narcotics.
- Is no longer needing medicine.
- Is feeding without difficulty and gaining weight.
- Is able to maintain a stable heart rate, breathing rate and temperature.
- Has referrals in place for community support, such as a home health nurse.
- Has a primary care provider (PCP) and a follow-up appointment.
- Has completed all the newborn health care (hearing screen, hepatitis B shot and newborn blood screening).

Follow up with your pediatrician and Home Health will be very important after your baby is discharged to ensure your baby is thriving and not having withdrawal symptoms. If your baby was transferred to the NICU, it will be especially important for you to spend a full day or two taking care of your baby on your own before you go home. This will help you feel comfortable and confident in caring for your baby when you leave the hospital.

Preparing for Discharge

Before discharge, you will need to make an appointment with your pediatrician or family practice doctor. If you are concerned or worried about your baby's health at any time, contact your baby's doctor to make an appointment. We will help you identify support systems in your community to help you during this busy, and sometimes challenging, time in your baby's life. Home health nurses can be arranged to follow up with your baby to make sure they are thriving.

Will My Baby Have Problems After We Go Home?

The symptoms of NAS may continue for more than a week and possibly up to several months. Over this time, the symptoms will start to fade. Your baby will be discharged when there is little risk for serious problems at home.

Once at home, your baby may continue to experience the following:

- Problems feeding
- Slow weight gain
- Poor sleeping patterns
- Sneezing and stuffy nose

Your baby's doctor and nurse will help teach you ways to take care of your baby. They will also teach you how to help your baby if he or she is having any of the problems listed above. Practice different ways of caring for your baby while in the hospital. You will learn what works best for your baby. Ask your baby's doctor or nurse any questions or concerns you may have. All questions are important ones. We want you to feel comfortable taking care of your baby in the hospital and when you go home. Once home, if you notice an increase in withdrawal symptoms please take your baby to your baby's doctor or back to the hospital.



Our Goal is to Keep Families Together

Our care philosophy is family-centered. Our goal is to keep mom and baby together as much as possible to promote bonding and healing. Our team of healthcare professionals are here to help you and your baby get off to a healthy start, and we want to ensure you have all the necessary resources you need for you and your baby. Your social worker will work closely with you as well as the Department of Health and Human Services (DHHS) and Child Protective Services (CPS) to customize a plan based on your individual needs.

DHHS and CPS serve as a safety net and are also committed to keeping families together, and therefore, will do everything necessary to ensure a safe discharge plan and environment for you and your baby. Only in rare circumstances do infants require placement outside of the family, such as when a parent is unwilling to seek treatment or is unable to provide a safe home environment.

Our doctors and nurses working with your social worker team are committed to helping the entire family. However, we recognize that the mother plays an important role in the discharge process. Therefore, it is important to maintain open communication with your care team to help them identify any additional resources you may need to support a healthy and safe home environment.

References

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- Perinatal Quality Collaborative of North Carolina (PQNC) (2015). Neonatal Abstinence Syndrome A Guide For Families
- McQueen, K. & Murphy-Oikonen, J. (2016). Neonatal Abstinence Syndrome. *New England Journal of Medicine (NEJM)*, 375(25),2468-2479.

Resources

Our staff work very hard to prepare you for discharge; however we know that questions may arise once you are discharged. We have prepared a few discharge resources to help you provide care for your little one.

Resource	Contact
NICU Staff	704.834.3390
Hospital Social Worker	704.834.3903 or 704.834.3907
Community Based Resources	
Children’s Developmental Services Agency (CDSA) Early Intervention services for children.	www.ncei.org 704.480.5440
Partners Behavioral Health Management Manages Mental Health (MH), Substance Abuse (SA) & Intellectual/Developmental Disability (I/DD) services for Gaston & Lincoln County residents who are enrolled in Medicaid or qualify for state funding and is experiencing a crisis or needs MH, SA or I/DD services.	1.877.864.1454 Call Access to Care Line: 1.877.235.4673
Gaston Residential Services, Inc. Housing	www.grsinc.org 704.861.9280
Gaston County Department of Health and Human Services High-quality clinical care, programs and services	www.gastongov.com/departments/health-and-human-services 704.862.7500
Social Services Division (DHHS) Amy Jenson	704.853.5167 or 704.718.1135 ajenson@gfhs.info
Gaston Family Health Services Primary care for moms and babies	704.853.5079 or 704.853.5148 or 704.874.1900
Carolinas Poison Control	704.355.4000 1.800.848.6946
Community Health Partners Community resources and case management for children.	www.communityhlthpartners.org 704.874.1920 901 W. Hudson Blvd, Gastonia, NC 28052

Resource	Contact
Community Based Resources <i>(continued)</i>	
Child and Family Services Child Protective Services Coordinator	704.862.6637 or 704.862.6751 Alyssa.Kuzia@gastongov.com
Phoenix Counseling Clinic	704.861.8014
McLeod Addictive Disease Center	704.865.1558
Teen Parenting Program	704.853.5406
Breastfeeding Support	
CaroMont Regional Medical Center	704.834.3512
WIC Peer Counselors	704.853.5181
Daycare Assistance	
Child Day Care	704.862.7515
Child Day Care Services	704.862.6607
Childcare Subsidy Hotline	704.862.6607
Day Care for Adults - Gastonia	704.825.5428
Highland Resource Center	704.866.9552
Partnership for Children	704.866.0900
Dental Providers	
Gaston Family Dental Clinic	704.853.5191
Gaston Family Pediatric Dentistry	704.874.0377
Obstetrics/Gynecological Care	
Ashley Women's Center	Gastonia - 704.865.7416 1225 E. Garrison Blvd. Gastonia, NC 28054 Belmont - 704.825.4449 1212 Spruce St, Suite 307 Belmont, NC 28012
Gaston Women's Healthcare	Gastonia - 704.865.2229 2680 Aberdeen Blvd., Suite A Gastonia, NC 28054 Mount Holly - 704.827.7887 112 Woodlawn Avenue Mt Holly, NC 28120
Substance Abuse and Rehabilitation Program (STAR)	704.853.5148

Resource	Contact
Pediatricians	
CaroMont Pediatric Partners	704.671.6300
Dr. Olivia Mijumbi	704.864.0303
Parenting	
Adolescent Parenting Program	704.868.4636
Fatherhood Program	704.685.5229
Parenting Matters Belinda Bogle	704.922.2122
Teen Parenting Program Dina Willman	704.853.5406
Very Important Parents (V.I.P.)	704.922.2122 or 704.922.2125
WIA Youth Works	704.862.7275
With Friends Youth Center	704.691.7116



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