

## What can I do to comfort my baby?

We will work with you to provide the most comfort for your baby.

- Reducing noise and light helps quiet and calm overactive senses
- Bundling and holding supports jittery muscles and helps your baby feel secure
- Skin-to-skin contact with mother or father may help an upset baby fall asleep
- Feeding every 3–4 hours soothes and promotes growth and weight gain
- Rest and uninterrupted sleep between feedings supports brain regulation
- Frequent diaper changes prevent skin breakdown from loose stools
- Vertical rocking (up and down motion) contributes to calming irritability
- Soft music and gentle humming may promote relaxation

Breastfeeding is encouraged in many cases. It provides an opportunity for close contact and skin-to-skin comfort. If you are in a substance treatment program and abstinent from illicit drug use, breastfeeding may lessen the response of NAS. Please talk to your NICU team and lactation specialist for breastfeeding support and guidance.

## Long-term impact of NAS

Limited evidence is available regarding the long-term impact of perinatal opioid exposure on the developing brain. Expect that your baby will have periods of irritability after going home. This could last from 6–12 months. Children are at greater risk for:

- Health problems
- Behavioral and emotional challenges
- Developmental delays
- Learning disabilities
- Poor school performance
- Sudden Infant Death Syndrome (SIDS)

## Follow-up support after discharge

It takes a supportive network of people to assist you after discharge. Multidisciplinary clinical follow-up is recommended for infants with a history of NAS. Occupational/speech therapy, nutrition specialists, social services, and community outreach programs such as Healthy Start, and Women, Infants, and Children (WIC) are available to help. Clinical follow-up begins within 3 months of discharge and continues at regular intervals until age 3 years.

Follow-up may include assessment of:

### **Growth and development**

- Adequate weight gain
- Developmental delays

### **Central nervous system disturbance**

- Neurological abnormalities
- Sleep disturbances

Specific tests may be performed at the following ages:

### **Age 18–22 months**

- A review of all aspects of development, including motor, language, cognitive, and social development

### **Age 3 years**

- A full neurological assessment to determine school readiness



## Neonatal Abstinence Syndrome: Managing Neonatal Withdrawal



## What is Neonatal Abstinence Syndrome?

Infants exposed to certain prescription medications or illicit drugs during pregnancy will often experience a withdrawal process known as Neonatal Abstinence Syndrome (NAS). The baby has become dependent on the drug but is no longer receiving it after birth. The abrupt absence of the drug is what begins the process of NAS.

Opioid pain relievers are among the most common prescription medications to elicit this response. Other medications and substances such as benzodiazepines, SSRIs, nicotine, and alcohol can also contribute to this condition.

Please let your health care provider know of all substances used while pregnant so that your baby may receive the best treatment and supportive care possible.

## How do I know if my baby is in withdrawal?

A baby who is mildly withdrawing may be irritable, want to feed frequently, and only sleep for short periods. More severe withdrawal symptoms may include:

- High-pitched cry
- Hyperactive reflexes, tremors, seizures
- Excessive wakefulness
- Tense arms, legs, and back
- Skin excoriation
- Fever/sweating
- Feeding difficulties
- Increased gas/abdominal cramping
- Vomiting and loose stools

## What is the treatment for NAS?

A combination of comfort measures and medication is most often what is needed to treat the symptoms of NAS. Preferred initial treatment of opiate withdrawal is morphine. Other medications, such as Phenobarbital or Clonidine, may be added if the response to morphine is inadequate or if the infant has been exposed to substances other than opiates. Once symptoms are controlled, medications are decreased (weaned) slowly over time. The infant may be discharged after 48 hours of inpatient monitoring following medication discontinuation.



## What happens next?

The NCH neonatal team is concerned about the health and well-being of your baby. An initial observation period of up to 5 days after delivery is essential to determine whether your baby will need treatment for withdrawal. If this is necessary, your baby will require admission to the Neonatal Intensive Care Unit (NICU) for an average period of 2 weeks to 2 months. Since all infants are different, the treatment will vary depending on your baby's response. A case management consultant will meet with you to help you manage your situation and provide support.

The NICU team wants to keep you informed about your baby's progress. We will do our best to explain our evaluation and treatment process so that you understand what you and your baby will experience. We invite you to stay and care for your baby as often as possible. Your presence and the comfort you provide will help your baby's recovery.

## What is Finnegan Scoring?

NAS is diagnosed by evaluating the quantity and severity of withdrawal symptoms. For infants with known opioid exposure, a Finnegan scoring system begins at birth with ongoing assessments performed every 3–4 hours until hospital discharge. The length of hospitalization should be a minimum of 4–7 days to identify symptoms that may be delayed in some cases. This tool determines when withdrawal begins and how your baby responds to treatment by applying a score to each of several categories of symptoms. A higher score reflects greater severity, and may determine the need for medication along with nonpharmacologic comfort measures, such as reducing noise/light, swaddling, and parental skin-to-skin contact. If medication is needed, it will be adjusted according to your baby's individual needs.