

## Neonatal Abstinence Syndrome (NAS) Frequently Asked Questions

Q. What is neonatal abstinence syndrome (NAS)?

A. In simple terms, it is when a baby is born dependent on legally prescribed or illegally obtained drugs used by the mother during her pregnancy. Babies of mothers who drink alcohol during pregnancy may have a similar condition. NAS can have a number of negative effects on the baby, including premature birth creating additional short- and long-term health challenges. NAS babies often require longer hospitalizations.

Q. Why/how does it happen?

A. During pregnancy, drugs and/or alcohol pass through the placenta to the baby and the baby becomes dependent in the womb. At birth, the baby is still dependent on the drug and symptoms of withdrawal may occur because the baby's drug supply is cut off.

Q. What are the symptoms of neonatal abstinence syndrome?

A. Symptoms can vary by the drug involved. They may begin shortly after birth or may take as much as one to two weeks to appear. These symptoms may include:

- Diarrhea
- Excessive crying or high-pitched crying
- Fever
- Irritability
- Seizures
- Trembling (tremors)
- Vomiting
- Blotchy skin coloring
- Excessive sucking
- Hyperactive reflexes
- Poor ability or inability to feed
- Rapid breathing
- Sleep problems
- Slow weight gain
- Stuffy nose, sneezing
- Sweating

Q. Are the symptoms the same for every NAS baby?

A. No. The symptoms of neonatal abstinence syndrome depend on:

- The type of drug the mother used
- How the mother's body breaks down the drug
- How much of the drug she was taking
- How long she used the drug
- Whether the baby was born full-term or early (premature)

Q. What kinds of drugs often cause neonatal abstinence syndrome?

A. Some common examples of drugs known to cause NAS include: benzodiazepines (diazepam, clonazepam), opiates/narcotics (heroin, methadone, codeine) and several others. Some women in long-term treatment of pain (for example, low back pain) or in substance abuse treatment programs may be at risk if they take some pain relieving medications on a regular basis.

Q. Can other conditions produce the same symptoms as neonatal abstinence syndrome?

A. Yes. Many other conditions can produce the same symptoms as neonatal abstinence syndrome. A doctor will ask questions about the mother's drug use, such as what drugs she took during pregnancy, and when she last took them. Tests may be done to diagnose withdrawal in a newborn, including using a standard scoring system to assess for NAS symptoms and test to detect drugs in the baby's system.

Q. What is involved in treating a baby with neonatal abstinence syndrome?

A. Treatment depends on the drug involved, the infant's overall health and if the baby was born full-term or premature. The clinicians will monitor the newborn closely for signs of withdrawal, including feeding issues and weight gain. Some babies who are dehydrated or who vomit may need to get fluids intravenously; others with more severe symptoms may require medicine to treat withdrawal; these may include morphine and methadone. A quiet environment with little stimulation is also generally helpful.

Q. What other special requirements are necessary?

A. Because some NAS babies have slow growth or poor feeding, they may need a higher-calorie formula and feeding in smaller portions more often. For some, breastfeeding is very effective.

Q. How long does NAS last?

A. Symptoms related to NAS can last from one week to six months. Most frequently babies are hospitalized for two to four weeks.

Q. Is neonatal abstinence syndrome a problem in Tennessee?

A. Yes. There has been 10-fold increase in NAS babies born in Tennessee from 2000 to 2010 according to the state hospital discharge database. Beyond the pain and suffering a newborn experiences, NAS also has an economic impact. According to TennCare, a baby with NAS cost 5.6 times more than a baby without NAS in 2010. TennCare infants with NAS are 18 times more likely to enter state custody than infants without NAS.

Q. What is being done to address the NAS problem in Tennessee?

A. An interdepartmental group, with the active involvement of several state commissioners, was formed in 2012 to design and implement strategies. The Neonatal Abstinence Syndrome Subcabinet Working Group includes:

- John J. Dreyzehner, MD, MPH, FACOEM, Commissioner of the Department of Health
- Darin J. Gordon, Deputy Commissioner of the Division of Health Care Finance and Administration
- Raquel Hatter, MSW, Ed.D, Commissioner of the Department of Human Services
- Wendy Long, MD, Health Care Finance and Administration Chief Medical Officer
- Kathryn R. O'Day, LCSW, Commissioner of the Department of Children's Services
- E. Douglas Varney, MA, Commissioner of the Department of Mental Health and Substance Abuse Services

This group has reached out to prescribers and dispensers, hospitals, health insurers, treatment providers, social service agencies and others to develop strategies in three areas:

- Primary prevention – efforts to reduce the numbers of women taking narcotics and/or to reduce the likelihood that women taking narcotics will become pregnant while using drugs.
- Secondary prevention – efforts to assure pregnant women using narcotics receive health care designed to minimize the likelihood of a neonatal abstinence syndrome or other problems.
- Tertiary prevention – efforts to assure infants diagnosed with NAS receive high-quality, cost-effective care and are ultimately discharged to a safe home environment.

Q. What are some elements of primary prevention?

A. Primary prevention is the earliest stage for preventing NAS and includes:

- Decrease the prescription of narcotics for chronic, non-cancer pain, especially in women of childbearing age. This includes the development of best practice guidelines and provider education to encourage adherence to such guidelines.
- Raise awareness among health care providers and the general population, especially women of childbearing age, on the risks of addiction associated with the use of prescribed narcotics and the potential risks to the baby when narcotics are taken during pregnancy. One key element of this is action by the Commissioner of Health and other key Tennessee government officials to petition the FDA to issue a “black box” warning on certain narcotics, thereby increasing the potential for awareness and communication between provider and patient. Another element is making NAS a reportable condition in Tennessee, requiring clinicians to inform the TDH of NAS babies.
- Encourage narcotic prescribers to counsel women of childbearing age about the risks of becoming pregnant while taking narcotics and to discuss birth control options before prescribing narcotics. The Bureau of TennCare plans to require such action on the part of the prescriber as a part of the prior authorization process for certain narcotics.
- An educational plan to properly inform women of child bearing age of the risks associated with long-term narcotics use. This will include education on individual health risks as well as risks during pregnancy, and measures to mitigate the risk of neonatal abstinence syndrome including options for contraceptive use. Representatives from TennCare are working on a strategy to identify women of child bearing age who are using prescribed narcotics to conduct targeted outreach/education regarding the risk of NAS.
- Encourage individuals and agencies that interact with women of child bearing age who are using illegal or illicitly obtained narcotics to provide counsel regarding contraception options and/or referral for contraceptive services. Examples of such agencies include service providers, drug court programs, home visitation programs and substance abuse treatment providers. Strengthening this, county health departments plan to begin using the Screening, Brief Intervention and Referral to Treatment (SBIRT) program as part of family planning services to identify potential abuse /dependence issues and provide appropriate counseling/services.

Q. What are some elements of secondary prevention?

A. Some secondary prevention efforts include:

- Identify pregnant women who are using drugs early in the course of their pregnancy and connect them with doctors or programs that have experience treating such individuals.
- Promote efforts to identify and/or develop “best practice guidelines” aimed at reducing adverse pregnancy outcomes, including the development of NAS. **Note:** Medication-assisted therapy for narcotic addiction during pregnancy may not prevent the development of NAS in the infant, but it may lessen the likelihood of other complications and/or reduce the severity of withdrawal experienced by the infant.
- Work with providers, treatment programs and other stakeholders to develop an environment that is comfortable and safe for women seeking assistance and treatment in reporting their addiction and seeking help for their unborn child who is at risk for NAS.

Q. What are some elements of tertiary prevention?

A. Tertiary prevention includes the support and development of best practice guidelines regarding the treatment of infants diagnosed with NAS. It also includes other elements aimed at endorsing and developing a standardized, objective process for making the diagnosis of NAS an evidence-based, cost

effective protocol for treatment. It emphasizes service providers should approach NAS cases in a consistent manner, with goals of assuring the safety of the child and maintaining the family unit whenever possible. The health and safety of the child are the primary factors in making these considerations.

Q. How do physicians report neonatal abstinence syndrome to the Tennessee Department of Health?

A. Instructions for reporting can be found at: <http://health.tn.gov/MCH/NAS/index.shtml>

Q. Who should report a case of NAS?

A. Cases of NAS should be reported by a health care provider at the facility where NAS is diagnosed; this will usually be a hospital. In the event that NAS is diagnosed in an outpatient setting, the outpatient clinician should report the case.

Q. Will a physician's name be on the report?

A. No. The only identifying information will be the name of the reporting facility. No individual provider names are collected.

Q. Why is reporting NAS important?

A. Information is used in aggregate form for the development of NAS-related policies and programs aimed at reducing the number of babies born to substance-affected mothers. All individually identifiable health information collected, created and/or prepared by the department is deemed confidential and shall not be considered a public record.

Q. Is the reporting an effort to criminalize mothers?

A. None of the departments involved in reducing neonatal abstinence syndrome supports criminalizing mothers; conversely, the uniform belief is treatment/counseling programs are more effective.

Q. Is the NAS reportable data passed along to the Department of Children Services?

A. No. This reporting procedure is for surveillance purposes only. Reporting a case of NAS does not constitute a referral to the Department of Children's Services. If a provider knows of or reasonably suspects child abuse or neglect, he or she is required by law to make a report to the Department of Children Services at 1-877-237-0004 or online at <http://reportabuse.state.tn.us/>