



Signs and Symptoms of NAS and Nows

Tremors
Irritability
Tachypnea
High-pitched cry
Excessive crying
Sleep disturbances
Hyperactive reflexes
Hypertonic muscle
Skin excoriation
Feeding difficulties
Gastrointestinal disturbances
Vomiting
Loose stools
Autonomic dysfunction
Sweating
Sneezing
Mottling
Fever
Nasal
Poor feeding
Yawning
Small for gestational age
Respiratory complications
Abnormal EEG changes

What You Need to Know About Neonatal Abstinence Syndrome and Custodial Placement

Neonatal Abstinence Syndrome (NAS) refers to a baby who suffers from withdrawal from a drug that they were exposed to while in the womb by the mother. You may also see NAS referred to as Nows, Neonatal Opioid Withdrawal Syndrome. Nows is the same as NAS, except it is exclusively caused by opioid drug use (March, 2019).

Causation. NAS occurs when a mother uses drugs which passes through the placenta to the unborn baby (Pacifci & Nottoli, 1995). Due to the ongoing opioid epidemic, this is most commonly seen in mothers who misuse prescription opioids. However, NAS is also seen in mothers who use other drugs to include cocaine, methamphetamine, alcohol, barbiturates, benzodiazepines, and nicotine. 75-95% of babies exposed to narcotics develop NAS.

Demonstration. The effects of NAS typically manifest between 72 hours and one week after birth depending on the drug(s) the baby was exposed to and the length of exposure (March, 2019). The number requiring medical treatment varies between 42-94% based on the length of exposure and medical intervention before birth with a median hospital stay of 13-19 days (Seattle Children's Hospital, nd).

Risk NAS babies have an increased likelihood of becoming failure to thrive or dying of SIDS due to neurological complication which interfere with autonomic functions (Boston, nd.). NAS and NOW babies frequently have a hard time staying awake which can make feeding difficult.

Action: Placing a child back into an environment where drug use is persistent, and resources are not available to mitigate the increased difficulties in caring for a baby suffering from NAS increases the likelihood for potentially fatal outcomes. Considering access to support and allocation of resources is key to keeping families safe.

These babies scream for hours on end are at risk of being shaken to death. Without proper training, support, and resources parents and caregivers are at risk of becoming overwhelmed.

Boston Children's Hospital. (n.d.). *Neonatal abstinence Syndrome (NAS) Symptoms & Causes: Boston Children's Hospital*. Boston Children's Hospital. <https://www.childrenshospital.org/conditions-and-treatments/conditions/n/neonatal-abstinence-syndrome-nas/symptoms-and-causes>.

March of Dimes. (2019, June). *Neonatal Abstinence Syndrome (NAS)*. Home. [https://www.marchofdimes.org/complications/neonatal-abstinence-syndrome-\(nas\).aspx](https://www.marchofdimes.org/complications/neonatal-abstinence-syndrome-(nas).aspx).

Pacifci, G. M., & Nottoli, R. (1995, March 28). *Placental transfer of drugs administered to the mother*. Clinical pharmacokinetics. <https://pubmed.ncbi.nlm.nih.gov/7758253/>.

Seattle Children's Hospital. (n.d.). *The Long-Term Outcomes of Infants with Neonatal Abstinence Syndrome*. Seattle Children's Hospital. <https://www.seattlechildrens.org/globalassets/documents/healthcare-professionals/neonatal-briefs/neonatal-abstinence-syndrome-outcomes.pdf>.

Firsthand Clinical Experience

Although the syndrome is not fully understood, it is known that it interferes with multiple bodily symptoms including neurological, gastrointestinal, and behavioral functions. A standardized scoring system is used to identify and determine the severity of symptoms in NAS babies. Treatment depends on the exposure length and substance the infant was exposed to while in the womb. For example, if the mother had used opioids during pregnancy the infant might be at risk of seizure and other withdrawal symptoms, so identifying the substances used quickly is essential.

An infant suffering from NAS, or potentially exposed to an addictive substance, requires monitoring in the NICU by medical staff to ensure that any latent symptoms are identified and treated, typically about five days. The room must be kept dark and quiet to ensure that they are not overstimulated. These babies are also easily overstimulated which makes them irritable and fussy. They have a distinctive high pitch cry when they are overstimulated. Sometimes something as little as being swaddled is too much for these babies.

These babies experience several symptoms which complicate proper feeding and growth, a concern since they are often born smaller than other babies of equal gestational age. They experience short sleep cycles and experience trouble staying awake and alert which prevents adequate feeding. Additionally, they have difficulty swallowing making IV and Nasogastric tubes needed to provide the baby with adequate nutrition. Finally, it is not uncommon for babies with NAS to experience gastroenterological symptoms such as vomiting, gassiness, and diarrhea.

-Nicole White, CNRP Pediatrics
