

Neonatal Abstinence Syndrome (NAS)

Also Known as Neonatal Opioid Withdrawal Syndrome (NOWS)

Neonatal abstinence syndrome (NAS), or neonatal opioid withdrawal syndrome (NOWS), is a condition that starts at birth after a baby was exposed to drugs, legal or illegal, during pregnancy.

When the baby is born, their drug supply stops and they go through a time of withdrawal. Until the drugs have left the baby's system, they feel discomfort. This is like when an adult suddenly stops using drugs.

Signs and symptoms

The withdrawal signs a baby has depends on what drugs are in their system, how much they were exposed to and how they were used during pregnancy.

Some typical signs of withdrawal may be:

- high-pitched cry
- shaky (tremors)
- cranky, restless
- hard to get or keep asleep
- stiff body
- fever
- throwing up (vomiting)
- little weight gain
- feeding problems
- diarrhea or frequent stools
- sweating
- severe diaper rash
- stuffy nose or repeated sneezing
- dehydrated
- forceful sucking
- skin irritation
- frequent yawning
- seizures (rare)

Treatment

Some babies have mild signs of withdrawal and need only normal, newborn baby care. Non-medical treatment is preferred. However, some babies have severe withdrawal and need medical treatment. Treatment may include being admitted to a special care nursery. There, your baby can get medicine to help ease their distress. If your baby is in a special care nursery, providers will be watching them to decide what care they need.

Things you can do

You can do these things at the hospital, or at home:

- Give your baby a pacifier.
- Pat or rock your baby.
- Hold your baby close. You might try using a skin-to-skin method called kangaroo care (Picture 2).
- Learn the signs of withdrawal so you will know if your baby is getting worse.
- Change your baby's diaper often. Clean their skin with warm water.
- Give smaller, more frequent feedings.
- Spend a lot of time with your baby, in the nursery or at home. Your baby will be comforted by your contact.
- Keep the setting calm and quiet. Keep lights dim, TV and radio off and use soft, quiet voices. Babies that have NOWS/NAS, are sensitive to stimulation, like bright light, loud sounds and being moved or held often.
- Use a blanket to wrap your baby, but be careful not to overheat them.
- Keep in contact with your child's health care provider.



Picture 2 Mother holding baby skin-to-skin (kangaroo care).

Diet

- Breastfeeding is encouraged. However, if you are not breastfeeding, your baby's health care provider will tell you what formula is best.
- To help with digestion, your baby may need a special formula.
- Often, babies will need to suck but not eat. In that case, you can give them a pacifier.

- During the first week of life, a baby will eat 1/2 to 1 ounce of milk per feeding. After that, they will usually eat 2 to 3 ounces of milk per feeding. Feeding more than this can lead to vomiting and diarrhea.

Medicine

Your baby's health care provider may prescribe medicine to help with their withdrawal.

- Give your baby the exact dose of medicine prescribed. Give only the amount of medicine that the health care provider prescribes.
- If you forget a dose of medicine, but remember **within about an hour**, give it right away. Then, go back to your regular dosing schedule.
- If you do not remember until later, **do not give the missed dose at all**. Do not double the next one. Instead, go back to your regular dosing schedule.

Follow-up

It is important to watch your baby's development as they grow. Talk to your baby's health care provider about any questions or concerns you have. Children who have been treated for NOWS/NAS in a special care or intensive care nursery may be referred to the Neonatal Developmental Clinic for more specialized care. A health care provider will screen your baby to make sure they are developing normally.

When to call your health care provider

Call your baby's health care provider if they:

- have worse signs of withdrawal
- are not eating
- have diarrhea or vomiting
- cannot be calmed down

When to call 911

Call 911 for emergency help if your baby:

- has a seizure
- turns blue
- stops breathing