

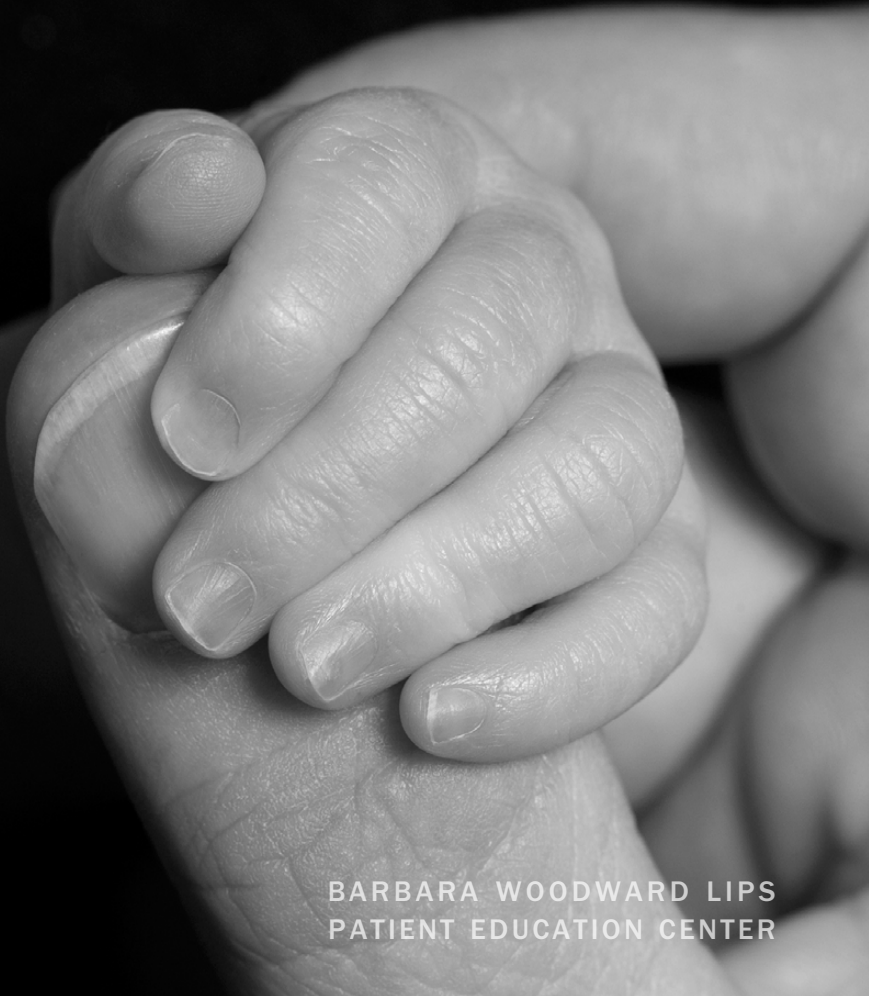


PATIENT EDUCATION

Neonatal Abstinence Syndrome (NAS)

Understanding Your Baby's Withdrawal

MAYO CLINIC CHILDREN'S CENTER



BARBARA WOODWARD LIPS
PATIENT EDUCATION CENTER

Mayo Clinic Children's Center

For more than 100 years, teams of physicians have cared for children at Mayo Clinic.

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Pediatric Sub-Specialties in the following areas:

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Dental	Pain and Palliative Care Consulting Service (Inpatient)
Dermatology	Physical Medicine and Rehabilitation
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Endocrinology and Metabolism	Pulmonology (see Allergy, Immunology & Pulmonology)
Gastroenterology and Hepatology	Radiation Oncology
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Hematology and Oncology	Surgery (Pediatric)
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Craniofacial Clinic	Pain Rehabilitation Center (3-wk outpatient)
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Diabetes Clinic	Sleep Medicine Center
Epilepsy Clinic (Intractable)	Spinal Deformities Clinic
Hemophilia/Coagulopathy Clinic	Sports Medicine Center
	Travel Clinic

Helping You Help Your Baby

You have been told that your baby has Neonatal Abstinence Syndrome or "NAS." NAS is the term your baby's health care team uses to describe the withdrawal symptoms your baby has due to drug exposure.

The exposure may have been before birth while still in the womb or after birth. The exposure may have been to medicine taken for a medical condition you or the baby has. Or, the exposure may have been to an illegal substance.

Caring for a baby with NAS can be hard. Just by reading this brochure, you have taken an important step in your baby's care. Know that you do not have to manage alone.

Read this brochure to:

- Understand NAS.
- Know what behaviors your baby may have.
- Learn how you can care for, comfort, feed and handle your baby.

You are an important member of your baby's health care team. You will be asked to join in your baby's care. It is important you stay involved to learn how to take care of yourself and your baby. Be sure to ask questions any time you have concerns.

How does a baby get NAS from exposure before birth?

The placenta is an organ that connects your baby to you. If your baby was exposed to medicine or drugs while in the womb, they may have passed through the placenta and reached your baby. The baby may have become physically dependent on the medicine or drugs. Since the baby is no longer getting the medicine or drugs after birth, he or she may have withdrawal symptoms and need medicine to help him or her recover.

How does a baby get NAS from exposure after birth?

If your baby was born with a medical condition that required he or she take certain medicines, such as narcotics, the baby can become physically dependent on the medicine because his or her body is used to having it. When the medicine is stopped because the baby no longer needs it, the baby may have withdrawal symptoms.

When medicine is stopped after birth, it isn't just abruptly stopped. It is done slowly and carefully through a process of "weaning." The amount of medicine your baby is given is decreased over time and the time between doses is slowly increased. Your baby's health care team watches his or her reaction to being weaned and works to ensure your baby is comfortable. By the time you take your baby home from the hospital, the medicine will usually have been stopped and your baby usually will not have any symptoms of withdrawal.

Do all babies exposed to drugs have NAS?

No, not all babies who have been exposed to medicine or drugs, either before or after birth, have NAS. It depends on what type the baby was exposed to, for how long, and how much was taken. If the NAS is due to exposure while in the womb, it depends when during the pregnancy the baby was born.

When do symptoms of NAS begin?

Most babies who have NAS begin showing symptoms within a couple days of no longer being exposed to the medicine or drugs, but it can be up to several weeks later. Symptoms usually last from one week to six months. Not all babies have the same symptoms. Symptoms usually get better over time.

NAS score

Your baby's health care team will assess your baby's withdrawal symptoms and use a score to show how severe the withdrawal symptoms are. This is called the NAS score. The higher the NAS score, the more severe the symptoms are.

The score is determined by the number of symptoms and the severity of them. The team may assess and score the baby every two to four hours. Your baby's NAS score will help determine the care plan.

Based on the score, your baby's environment may be changed or he or she may be given medicine.

Care while in the hospital

Your baby may need to stay in the hospital longer than a baby who has not been exposed to medicines or an illegal substance. Your baby may need to be in a special care nursery. How long a baby with NAS stays in the hospital can vary, but it can be from a few days to a few months or even longer.

It is important your baby gets this medical care. Sometimes, babies with NAS become so overwhelmed with symptoms, they can have a seizure. Over time, the risk of this happening goes down. Your baby will not go home from the hospital until the baby's health care team decides the symptoms of NAS are well managed.

Typical symptoms of a baby with NAS

Not all babies have the same symptoms. If the baby was born premature, symptoms may be less obvious than a baby born full term. Symptoms can vary depending on the medicine or drug the baby was exposed to and for how long.

Typical symptoms can include:

- Long periods of crying or high-pitched crying.
- Having a hard time falling or staying asleep.
- Being easily startled, acting jittery or having tremors.
- Constant fist sucking.
- Tense arms, legs and back.
- Breathing troubles, sneezing or having a stuffy nose.
- Spitting up, throwing up, loose or frequent stools.
- Skin irritation from rubbing.
- Fever.
- Extreme sensitivity to loud sounds, bright lights or touch.

In addition, your baby may have a hard time eating and have slow weight gain.

What You Can Do to Help

The most important thing you can do to help is be involved. Ask questions if you do not understand something. Make every effort to care for your baby yourself so you learn how to comfort your baby.

Be patient. What works for some babies doesn't work for others. It's going to be a process of trial and error. Ask for help when you need it.

Take the time to understand how your baby communicates so you can best comfort him or her. Ask a member of your baby's health care team for a copy of the Mayo publication, *"Getting to Know Your Special Care Baby: Communications,"* MC5637-02, to learn how to understand and respond to your baby.

Follow these suggestions for managing the symptoms of NAS.

Providing a calm, quiet environment

- Keep your baby in a quiet room. Try to prevent loud or sudden noises. Decrease stimulation. Limit the number of people who visit you and your baby to just a few.
- Use soft lighting. Keep the baby away from bright lights or light shining in his or her face, such as sunlight through a window or light from a lamp.

Taking care of your baby's physical needs

- Follow your baby's health care provider's suggestions about how to care for skin irritation. Keep your baby clean and dry, especially the mouth, nose and diaper area. Keep areas of irritated skin clean.
- Allow your baby to have undisturbed sleep time in his or her bed when you are not holding him or her. Ask your baby's health care provider about a safe sleeping environment for your baby and about how long of a stretch it is reasonable for your baby to sleep at one time.
- Tend to all the babies needs when he or she is awake. This includes changing diapers, feeding or giving medicine.
- If the baby will take one, pacifiers are OK.

Feeding your baby

Depending on your situation, you may be encouraged to breastfeed your baby. Talk to your baby's health care team about what would be best.

- Work with your baby's nurse to figure out the best way to feed your baby. Your baby may need to be fed smaller amounts more often and may need to be burped more often.
- Your baby may eat quickly and seem to gulp his or her feedings. Babies swallow air when they eat fast and when they cry. For this reason, your baby may need to be burped more often.
- Feed your baby in quiet, calm surroundings with little noise or distractions.
- Feed the baby slowly, allowing for rest between feedings. Babies with NAS will often suck vigorously on a pacifier.

Responding to your baby's cries

Your baby may become upset and may not be able to calm down without your help. Crying is one way your baby shows that he or she needs help. When your baby cries, respond to his or her cries. This will help your baby learn to trust that you will meet his or her needs. When you respond to your baby's cries, remember to be patient. Every moment you spend helping, comforting or talking to your baby helps him or her feel closer to you and safer in your care.

If you worry that answering each of your baby's cries could spoil him or her, it won't. Babies who always get a fairly quick response to crying usually are more patient and cry less as they get older. This is because they learn to trust that their needs will be met.

Handling the baby with care

- Hold the baby close to your body when the baby is in your arms.
- Learn the signs that your baby wants to be held. Based on your baby's needs, your nurse can show you gentle ways to touch and hold your baby.
- Some babies with NAS are comforted by gently rocking them. Other babies prefer to be held snugly without rocking.
- If your baby moves his or her arms and legs frantically, try holding the arms and legs gently against his or her body.
- Ask a member of your baby's health team to show you how to wrap your baby snugly in a blanket, called swaddling. Many babies like the warmth and comfort of being swaddled.

- Be careful to never shake your baby or handle him or her roughly. If you feel overwhelmed when caring for your baby, and you don't know what to do, put the baby in a safe place such as his or her crib. *Then call immediately for help.*

If You Need More Help

Talk to your baby's health care provider if the suggestions on pages 5-8 do not work to comfort the baby. Your provider may prescribe medicine that can help.

The kind of medicine your baby's provider prescribes depends on the NAS score, the baby's weight and the drugs your baby was exposed to during pregnancy.

Over time, the dosage of the medicines may change or the medicines may change altogether. This process continues until your baby no longer has NAS.

Caring for Yourself

It can be very hard to care for a baby with NAS. You may be struggling with health issues of your own or adjusting to being a new parent. Some parents say they feel like they are on an emotional roller coaster.

- Ask for help from family and friends. Accept help when it is offered.
- Once your baby is home, arrange for someone you trust to care for the baby for periods of time so you have some time to rest, relax or do something you enjoy.

Remember that you do not have to manage alone. Ask your baby's health care team for recommendations of community resources or programs that could help support you.

Follow-Up Care

You may need to bring your baby in for follow-up appointments more often than a baby who does not have NAS. Be sure to attend follow-up appointments with all your health care providers and your baby's providers.

Contact your baby's health care provider if you notice that your baby's symptoms are becoming more frequent or more severe.

Conclusion

The goal of your baby's health care team is to help you and your baby through the baby's withdrawal, both while he or she is in the hospital and after the baby goes home. You do not have to manage alone. If you have questions or concerns at any time, talk with a member of your baby's health care team.

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BARBARA WOODWARD LIPS PATIENT EDUCATION CENTER

Mrs. Lips, a resident of San Antonio, Texas, was a loyal patient of Mayo Clinic for more than 40 years. She was a self-made business leader who significantly expanded her family's activities in oil, gas and ranching, even as she assembled a museum-quality collection of antiques and fine art. She was best known by Mayo staff for her patient advocacy and support.

Upon her death in 1995, Mrs. Lips paid the ultimate compliment by leaving her entire estate to Mayo Clinic. Mrs. Lips had a profound appreciation for the care she received at Mayo Clinic. By naming the Barbara Woodward Lips Patient Education Center, Mayo honors her generosity, her love of learning, her belief in patient empowerment and her dedication to high-quality care.

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