

MSA NEWSLINE

Up-to-date Information on Maternal Substance Abuse and Child Development

Neonatal Withdrawal Syndrome

Signs of Withdrawal in Newborns

In newborns, the signs of withdrawal are agitation and increased physical activity, including crying, sleeplessness, gastrointestinal upset, sneezing and hiccuping. Babies may be hyperalert, hard to soothe, and can appear to be hungry. They will mouth and suck frantically in an attempt to soothe themselves which can lead to overfeeding and spitting up.

Sometimes motor tone is increased so that muscles are more tense and babies show rigidity for a period of time. They may be jerky and tremulous in their movements. Some babies will arch their backs and pull away when held. Some will crawl and move frantically resulting in reddened knees and toes (called excoriation).

Most infants only require a few days of soothing and care. They respond well to swaddling and rocking to help with the physical overarousal. They should have ample liquids to keep them from getting dehydrated. Caregivers need to be patient and aware of the symptoms related to specific drugs, so that they may care for the child in the best possible way. The problems should resolve in a week or so.

Neonatal Withdrawal Syndrome: Drug Withdrawal in Newborns and Infants

People taking care of infants who have been exposed to drugs and alcohol prenatally are often concerned about Neonatal Withdrawal Syndrome (NWS) or Neonatal Abstinence Syndrome (NAS). Sometimes, they believe that the condition lasts for months following birth and affects many aspects of the infant's behavior and interaction with others. Because NWS is a medical condition that can impact the newborn, it is important to understand what NWS really is and how it can affect the infant's health and behavior.

NWS occurs in newborns whose mothers use one or more kinds of drugs, called "depressants", during pregnancy. Only certain kinds of drugs cause NWS, particularly drugs that depress the central nervous system (CNS). The most common drugs associated with NWS are narcotics, like heroin, methadone, morphine and other opiates, both natural and synthetic. Alcohol is also a depressant drug and is associated with newborn withdrawal. Some prescription drugs, like Valium, also have such effects. Drugs that are classified as "stimulants", like cocaine, methamphetamine ("crystal meth", "crank") and other "uppers" do not cause NWS because their action on the CNS is very different. People do not become dependent on stimulants in a physical sense although they can in a psychological sense.

Babies who show NWS are often described as addicted. However, depressant drugs are not "addictive" to the unborn baby because addiction has a psychological/behavioral component and fetuses are not capable of such feelings and behaviors. However, they can develop a physical tolerance to a drug. When the brain is exposed regularly to a depressant drug, it gets out of balance neurochemically. To reestablish the balance, it begins to produce more natural stimulants to counteract the depressant drug. This is called "dependency". When the drug is withdrawn at birth,

Care of the Neonate with Prenatal Exposure to Alcohol or Drugs

Caring for a substance-exposed newborn requires periodic assessments to ensure that the infant is developing properly. Assessment tools such as the Neonatal Abstinence Scale (Finnegan, 1986;1990) can be used to evaluate the severity of the opiate and determine when to administer pharmacological treatment for symptoms.

Care focuses on vital signs and correction of neonatal acidosis and other metabolic problems.

Symptoms of withdrawal are usually seen in the first 72 hours. As the newborn recovers, further assessment should include vision and hearing screening to detect

the natural stimulants continue to be produced for several days until the body can readjust to the new situation. The result of the overproduction of natural stimulants is what produces "withdrawal syndrome".

After a few days, the body restores its normal balance and these signs gradually go away. The time it takes for withdrawal to resolve depends on how long the drug stays in the body.

Understanding NWS can make the first few days of life better for both the baby and the caregiver. NWS is limited to a few days following birth and has no long-term consequences. Any other unusual behaviors noted in drug and alcohol exposed infants, or behaviors that last more than a week or 10 days, are not the result of NWS and should be brought to the attention of health care professionals.

[For more information, contact the Maternal Substance Abuse and Child Development Project at \(404\) 712-9800.](#)

deficits seen in heavy alcohol exposure.

Parents and caregivers should seek support and advice from professional sources to improve care for the child. Early intervention programs can provide training in feeding interaction, CPR, and pregnancy prevention. Close follow-up, either in a residential program or with visiting nurses and early-intervention professionals, is important both for infant development and for maternal well being. A mother's psychological state, including ego development and depression, has been found to have a strong influence on her interaction with her infant (Fineman, Beckwith, Howard,



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The *Maternal Substance Abuse and Child Development Project* is dedicated to the study and prevention of the effects of maternal substance abuse. Since 1978, the project has studied the development of children exposed to alcohol and other drugs prenatally and their caregivers and provided training for Prevention statewide. For additional information call (404) 712-9800.