



Neonatal Abstinence Syndrome

Newborns Going Through Opiate Exposure in the Womb

Over the past few years, there has been a steady increase in the number of infants born who are suffering from opiate withdrawal. An opiate is any drug that contains narcotics, including heroin, methadone, Vicodin®, Percocet®, Oxycontin®, or several other prescription medications. In fact, a good part of this increase has been driven by the escalating use of prescription narcotics. However, heroin is cheaper, stronger, and often easier to buy, so there has been increasing movement to heroin, especially during the COVID-19 pandemic.

When opiates – whether prescription or bought on the street – are used during pregnancy, the use can result in the physical dependence of both the mother and the fetus. After birth, the newborn infant goes through withdrawal, known as Neonatal Abstinence Syndrome (NAS), which mimics narcotic withdrawal in an adult. While the most significant symptoms of the Neonatal Abstinence Syndrome are a high-pitched cry, sweating, tremulousness, scratching of the skin, vomiting, and diarrhea, multiple systems are affected:

- Neurologic – tight muscles, tremors, increased reflexes, irritability and restlessness, high-pitched cry, sleep disturbances, seizures
- Autonomic – yawning, sneezing, sweating, nasal stuffiness, low-grade fever, skin mottling
- Gastrointestinal – diarrhea, vomiting, poor feeding, regurgitation, uncoordinated suck and swallow, failure to thrive
- Respiratory – rapid breathing or stopping breathing for short periods
- Neurobehavior – irritability, poor response to visual or auditory stimulation, inability to control level of arousal
- Miscellaneous – scratching of skin with abrasions on knees, elbows, and chin from rubbing on the bed sheets.

In the accompanying video, note how a baby with NAS is and how tight his arms and hands seem to be. Also notice that the baby seems to hit a peak of irritability and jitters and then appears to try to calm himself, bringing his hands down to his face, sucking on his hands. The baby is feeling completely overloaded, and he is trying to protect himself by calming down. But it's just not working.

Symptoms of neonatal withdrawal from opiates may be present at birth, but they sometimes do not appear until three to four days later. The withdrawal symptoms peak around six weeks of age and can persist in a more subtle form for four to six months, or longer. The infants also may demonstrate many of the same problems as other prenatally exposed infants, including low birth weight, prematurity, muscle tone changes, and infant neurobehavioral problems.

Treatment of neonatal abstinence primarily is supportive – swaddling, use of a pacifier, and small frequent feedings. In some cases, withdrawal may be severe enough to warrant use of medication to help the newborn through the worst symptoms. Most commonly, morphine or methadone in small doses is used to calm the infant and enhance his ability to feed, sleep, and interact appropriately with his caregiver.

