NEONATAL ABSTINENCE SYNDROME

Neonatal abstinence syndrome (NAS) is a multisystemic disorder resulting from chronic in-utero exposure to certain prescription or illicit drugs and their abrupt cessation at birth.
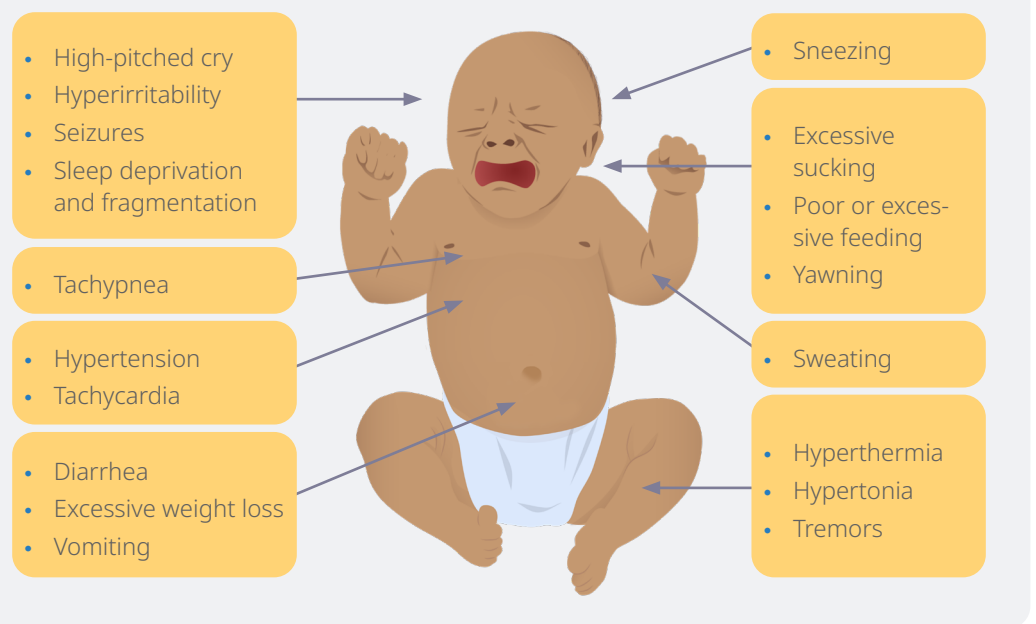
Causes

NAS can result from a wide variety of substances consumed during pregnancy, including:

- Opioids
  - Heroin
  - Morphine
  - Fentanyl
  - Hydrocodone
  - Oxycodone
  - Methadone
  - Buprenorphine
- Benzodiazepines
- Amphetamines
- Cocaine
- Nicotine
- Antidepressants
  - SSRIs
  - SNRIs

Signs and symptoms

Onset, duration, and severity of symptoms vary greatly depending on the substance(s) involved and patterns of prenatal use.

- High-pitched cry
- Hyperirritability
- Seizures
- Sleep deprivation and fragmentation

- Tachypnea

- Hypertension
- Tachycardia

- Diarrhea
- Excessive weight loss
- Vomiting

- Sneezing

- Excessive sucking
- Poor or excessive feeding
- Yawning

- Sweating

- Hyperthermia
- Hypertonia
- Tremors

Non-pharmacological management

A non-pharmacologic approach is first-line in treatment of NAS:

- Keep the parent-infant dyad together through rooming-in.
- Educate and involve parents in all aspect of infant care.
- Encourage breastfeeding unless there is an absolute contraindication. Facilitate access to human donor milk, as needed.
- Increase frequency of feeding and/or supplement with calorie-dense formula to meet increased energy requirement.
- Facilitate frequent skin-to-skin contact, kangaroo care.
- Reduce stimuli: Cluster care, dim lights, reduce noise.
- Vertical rocking, side-lying C position, and swaddling may reduce irritability and hypertonicity.
- Individualize interventions to infant's symptoms/response.

Pharmacological management

Treatment is aimed at improving withdrawal signs in the short-term and weaning as soon as NAS signs and symptoms are well controlled.

There is no consensus regarding preferred agent, regimen, or weaning protocol.

Ongoing care

Close interdisciplinary follow-up is necessary after discharge to meet the complex health needs of the parent-infant dyad and connect them to community resources.