

Substance Use/Misuse and Breastfeeding

Breastfeeding recommendations and guidelines for birthing persons affected by substance use/misuse.

The following guidelines are intended as a general educational resource for hospitals and clinicians and, therefore, are not intended to reflect or establish a standard of care or to replace individual clinician judgment and medical decision making for specific healthcare environments and patient situations. That said, clinical recommendations for breastfeeding birthing persons affected by substance use/misuse are grounded in several guiding principles:

- Encourage breastfeeding unless the risks of substance use clearly outweigh the medical, psychosocial, and financial benefits of breastfeeding.
- Decisions regarding initiation and/or continuation of breastfeeding should inform, individualized, and based on existing evidence available and be made collaboratively, with the birthing individual, their obstetrical and treatment providers, lactation consultant(s), social worker(s), nurse and/or nurse home visitor and infant provider(s).
- Communication with pregnant persons with a history of substance use regarding nutritional recommendations should emphasize solidarity with and respect for the pregnant person in order to support continued engagement in their needed care and support for high quality parenting.
- Although substance use carries potential risk to the infant, **substance use is not necessarily a contraindication to breastfeeding.**ⁱⁱⁱ
- **Rapid urine drug testing is associated with a significant rate of false positives** and thus confirmatory testing should be performed only if testing results are inconsistent with maternal self-report.

Definitions

The following table outlines key phrases used throughout this document.

phrase	definition	other considerations
Substance Use	use of alcohol, illicit substance(s) and/or controlled substance(s) not prescribed to the individual	evidence of substance use can be found through: positive birthing/breastfeeding individual self-report <i>OR</i> positive confirmed birthing/breastfeeding urine drug testing <i>OR</i> positive confirmed neonatal drug screening.
Substance use with Significant Risk to the Breastfeeding Infant	beyond the risks that substance use poses to good parenting, the use of substances carries with it significant potential risk to the infant	see Appendix A for list of substances and reported adverse effects
Medical Contraindications to Breastfeeding	certain diagnoses and medications pose increase medical risk for the infant	maternal HIV and HTLV infection, infant galactosemia, medications with morbidity risks (cancer chemotherapy, radioactive isotopes, antimetabolites, antiretroviral medications), perinatal substance use/misuse with intent to continue use <i>and/or</i> refusal of treatment

General Practice Guidelines for Infant Feeding Per Clinical Time Period

clinical time period	practice guidance
Prenatally	<p>If no <i>medical contraindications to breastfeeding</i> exist:</p> <ul style="list-style-type: none"> • Recommend, encourage, and support breastfeeding. <p>If a birthing person indicates <i>preference for formula feeding</i>:</p> <ul style="list-style-type: none"> • Use motivational interviewing to ensure informed decision making about infant feeding and that information regarding the benefits of breast/breastmilk-feeding have been provided.
Upon Delivery Admission	<p>For birthing persons <i>desiring to breastfeed</i>:</p> <ul style="list-style-type: none"> • Provide support and reinforce birthing person’s decision to breastfeed, especially in regard to the health and psychosocial benefits of breast/breastmilk-feeding for both the birth parent and infant; • Stress the importance of not exposing infant to any non-prescribed medication or substance during breastfeeding; • Stress importance of not exposing infant to medications unless prescribed by, and under direct supervision of, a medical provider who is knowledgeable about effects of medications in lactation; • Initiate Lactation consultation
Postpartum and Pediatric Follow-up	<p>During <i>postpartum and pediatric</i> follow-up:</p> <ul style="list-style-type: none"> • Encourage skin-to-skin contact to facilitate bonding, physiologic transitions, and infant feeding. • Stress the importance of abstaining from alcohol and illicit substances, regardless of infant nutrition preferences. • Provide education, assessment, and support based upon birthing person’s preference for infant nutrition after discussion of breastfeeding benefits. Advise birthing persons feed infant: <ul style="list-style-type: none"> ○ Skin-to-skin in a calm, low-stimulating environment. ○ When hungry and until content, with a goal of 8-12 times per day in the first few weeks of life. ○ Ensure effective, frequent ad lib feedings for infants regardless of feeding type. ○ Provide lactation consultation for infants who are breastfed or being fed expressed breastmilk. <p>Regarding appropriate infant weight for age:</p> <ul style="list-style-type: none"> • Infants 35 weeks and above should demonstrate weight gain by day of life (DOL) 5. • Infants should regain birth weight between DOL 10 and 14, regardless of gestational age at birth. • After this time, growth velocity expectations are as follows: <ul style="list-style-type: none"> ○ Premature infant: < 2 kg: 15-20 grams/kg per day ○ Premature infant: >2 kg: 20-30 grams per day ○ Full term infant: > 20 grams per day • If weight gain is not demonstrated appropriately: <ul style="list-style-type: none"> ○ Reassess infant feeding to ensure efficacy and sufficient frequency of feedings. ○ Optimize feeding efficacy and frequency, when needed. ○ Consider supplementation with high calorie breastmilk, human donor milk, or formula. As there is no evidence for using special formulas, reserve use for specific clinical indications only.

Guidelines for Infant Feeding

The following table outlines guidelines specifically related to breastfeeding and substance use/misuse. This table organizes guidance for birthing persons by substance and across two categories:

- **Communication Strategies:** includes patient education and shared decision-making
- **Clinical Best Practice:** outlines evidence-based best practice for use in clinical settings

presumptive positive maternal or neonatal urine drug testing on admission, positive umbilical cord test, or maternal self-report of substance use with significant risk to breastfeeding infant	
communication strategies	clinical best practice
<ul style="list-style-type: none"> • Discuss with birthing/breastfeeding person importance of communicating with their SUD treatment provider regarding need for assistance in ensuring safety of baby while breastfeeding. Stress importance of no substance use in breastfeeding and recommendation to discontinue breastfeeding if any substance use occurs. • Shared decision-making to initiate or continue breastfeeding should be individualized for each dyad with input from obstetrical and substance use disorder (SUD) treatment providers, lactation consultant(s), social worker(s), and infant provider(s) based on the following: <ul style="list-style-type: none"> ○ birthing/breastfeeding person’s history including self-report of substance use ○ birthing/breastfeeding person’s intent to engage in and access to SUD treatment ○ substance(s) in question ○ specificity of drug testing ○ existing evidence available regarding safety of substance in breastfeeding • Ascertain that the birthing/breastfeeding person is committed to abstaining from all substance use, including marijuana and alcohol, while breastfeeding their infant and intends to engage in SUD treatment. 	<ul style="list-style-type: none"> • If the birthing/breastfeeding person intends to abstain but needs assistance accessing SUD treatment, refer to an appropriate provider. Initial intake appointment should be scheduled prior to discharge. • If birthing/breastfeeding person states intent to maintain abstinence and commitment to engage in treatment, initiate lactation consultation, arrange follow-up, and support breastfeeding. • If mother states intent to continue to use substances and refuses substance use treatment, see Birthing/breastfeeding persons who state intent to continue Substance Use with Significant Risk to Breastfeeding Infants and refuse substance use treatment below.
methadone or buprenorphine maintenance treatment	
communication strategies	clinical best practice
<ul style="list-style-type: none"> • Review that birthing/breastfeeding person should decrease prescribed dose of medication postpartum <i>only</i> under supervision of a medical provider. • Stress safety of medications in breastfeeding as long as the birthing/breastfeeding person is under the direct care of a substance use disorder (SUD) treatment provider and as long as the birthing/breastfeeding person does not abruptly cease treatment. • Review that breastmilk <i>may</i> help lessen the severity of neonatal drug withdrawal/NAS and need for pharmacologic treatment. 	<ul style="list-style-type: none"> • Amounts of buprenorphine in human milk are small and are unlikely to have short-term negative effects on the developing infant.ⁱⁱⁱ • Breastfed infants may have less severe NAS and may be less likely to require pharmacological intervention than the formula-fed infants.ⁱⁱⁱ

self-report of cannabis, marijuana, tetrahydrocannabinol (THC) use or urine drug screen positive for THC	
communication strategies	clinical best practice
<ul style="list-style-type: none"> ● Advise mother to abstain from cannabis/marijuana use while breastfeeding and caring for her infant due to risk for impaired ability to safely care for him/her, hazards of passive smoke exposure to infant, and risks of marijuana exposure through breastmilk, including the following: <ul style="list-style-type: none"> ○ Marijuana contains many chemicals with the primary psychoactive constituent of marijuana being delta 9-tetrahydrocannabinol (Δ⁹-THC). ○ THC accumulates in breastmilk due to its long half-life (25–57 hours) and its affinity to fat in the breastfeeding person’s milk. THC can be present in human milk up to 8x that of levels in the mother’s blood. ○ THC is absorbed and metabolized by the infant, and is then rapidly distributed to the infant’s brain. ○ THC can be stored in an infant’s fat tissue for weeks to months ○ Infants can become extra sleepy and may experience long-term neurobehavioral/developmental impact ○ Second-hand smoke exposure ● Marijuana has been shown to be contaminated with dangerous adulterants. To seek SUD treatment if they are a daily user of marijuana. <ul style="list-style-type: none"> ○ To not breastfeed if they are a daily or frequent user of marijuana (especially if they smoke multiple times per day) and does not intend to seek treatment and/or abstain from smoking. In this scenario, provide infant with breastfeeding person’s alternative choice for her infant’s nutrition. ● CBD considerations: There are no specific studies to date examining CBD and breastfeeding. It is unknown how much CBD (oral or topical) gets into breastmilk, so should also be discouraged. 	<ul style="list-style-type: none"> ● While current data poses limitations and does not directly examine the benefits of breastmilk versus risks of exposure to marijuana in breastmilk, cannabis use in breastfeeding mothers should be discouraged at this time.^{iv} ● It is unknown how much CBD (oral or topical) gets into breastmilk, so should also be discouraged.
alcohol use	
communication strategies	clinical best practice
<ul style="list-style-type: none"> ● Advise breastfeeding person to abstain from daily alcohol use while breastfeeding and caring for their infant due to risk for impaired ability to safely care for him/her, and due to risks of alcohol in breastmilk including the following: <ul style="list-style-type: none"> ○ Breastmilk alcohol levels closely parallel blood alcohol levels ○ Alcohol use may limit a breast feeding person’s milk supply and transfer of milk to their infant by blunting prolactin response to infant suckling, interfering with the milk ejection reflex, and decreasing their infant’s effectiveness in suckling due to sleepiness. ○ Breastfeeding after one or 2 drinks can decrease an infant’s milk intake by approximately 20% and cause infant agitation and poor sleep patterns. ○ The long-term effects of daily use of alcohol on the infant are unclear. Some evidence indicates that infant growth and motor function may be negatively affected by exposure to one drink or more daily. 	<ul style="list-style-type: none"> ● Recommendations from the American Academy of Pediatrics, the World Health Organization, and others advise waiting 90–120 minutes after ingesting alcohol before breastfeeding, or expressing and discarding milk within that time frame.

<p>Heavy use may cause excessive sleepiness, fluid retention, and hormone imbalances in breastfed infants.</p>	
occasional alcohol use	
communication strategies	clinical best practice
<ul style="list-style-type: none"> • Minimize and limit alcohol use. • Withhold breastfeeding for 2 hours or longer after: <ul style="list-style-type: none"> • consuming one standard drink (12 oz regular beer (~5% alcohol), 8-9 oz malt liquor (~7% alcohol), 4-5 oz wine (~12% alcohol), 1.5 oz distilled spirits (40% alcohol) or 4-8 hours after consuming more than one drink in a single occasion. • NOTE: The breastfeeding person should “pump and dump” their breastmilk at least once in this period of time to ensure appropriate emptying of their breasts. 	<ul style="list-style-type: none"> • Recommendations from the American Academy of Pediatrics, the World Health Organization, and others advise waiting 90–120 minutes after ingesting alcohol before breastfeeding, or expressing and discarding milk within that time frame.
daily or heavy alcohol use	
communication strategies	clinical best practice
<ul style="list-style-type: none"> • Advise they decrease to only occasional intake, with recommendations as above, due to potential risk to breastfed infant. • Seek SUD treatment if they drink one or more drinks daily, or is a heavy user of alcohol, and is unable to cut back use. • Not to breastfeed if they are a daily or heavy user of alcohol and does not intend to seek treatment and/or abstain from alcohol use due to potential risk to their breastfed infant. In this scenario, provide infant with breastfeeding person’s alternative choice for her infant’s nutrition. 	<ul style="list-style-type: none"> • Breastfeeding is not recommended due to the potential risk to the infant. • Make referral for SUD treatment provider.
intent to continue substance use significant risk to breastfeeding infant and refuse substance use treatment	
communication strategies	clinical best practice
<ul style="list-style-type: none"> • Recommend that infant’s nutrition be previously stored substance-free breastmilk or breastfeeding person’s alternative choice for their infant’s nutrition. • Encourage abstinence from substances as these may impair breastfeeding/parenting person’s parenting abilities and/or pose other risks to the infant. • If the breastfeeding individual indicates intent to breastfeed despite infant provider recommendation to not breastfeed, advise the birthing individual that: <ul style="list-style-type: none"> ○ Breastfeeding is against medical advice due to safety concerns for the infant. 	<ul style="list-style-type: none"> • Breastfeeding is not recommended due to the potential risk to the infant.

- The mandated report to the state Child Protective Services (CPS) agency will also indicate the breastfeeding individual's intent to breastfeed against medical recommendations and reasons for the provider's recommendation.

Birthing Individual Infection of Potential Concern in Breastfeeding

- Hepatitis C virus (HCV) is transmitted by infected blood. However, there are no current data to suggest that HCV is transmitted by human breastmilk. Therefore, birthing/breastfeeding persons HCV infection is not a contraindication to breastfeeding. Although data are insufficient regarding safety, if the HCV-positive person's nipples and/or surrounding areola are cracked and bleeding, she should hold breastfeeding temporarily. During this time, it is recommended that the breastfeeding individual express and discard their breastmilk (i.e., "pump and dump") and feed their infant with previously stored breastmilk or a breastmilk substitute (e.g., donor human milk, formula). Once their nipples are no longer cracked or bleeding, the HCV-positive breastfeeding individual may fully resume breastfeeding. A formal lactation consultation is recommended to assess and assist in achieving a deep, non-traumatic latch.

VII. Table 1: Drugs of Abuse for Which Adverse Effects on the Breastfeeding Infant Have Been Reported*

Drug	Reported Effect or Reason for Concern
Alcohol	Impaired motor development or postnatal growth, decreased milk consumption, sleep disturbances. Note: Although binge drinking should be avoided, occasional, limited ingestion (0.5 g alcohol/kg/d; equivalent to 8 oz wine or 2 cans of beer per day) may be acceptable.
Amphetamines	Hypertension, tachycardia, and seizures. In animal studies of postnatal exposure, long term behavioral effects, including learning and memory deficits and altered locomotor activity, were observed.
Benzodiazepines	Accumulation of metabolite, prolonged half-life in neonate or preterm infant is noted; chronic use not recommended.
Cocaine	Intoxication, seizures, irritability, vomiting, diarrhea, tremulousness.
Heroin	Withdrawal symptoms, tremors, restlessness, vomiting, poor feeding.
LSD	Potent hallucinogen.
Methamphetamine	Fatality and persists in breast milk for 48 h.
Methylene dioxy-methamphetamine (ecstasy)	Closely related products (amphetamines) are concentrated in human milk.
Marijuana (cannabis)	Neurodevelopmental effects, delayed motor development at 1 y, lethargy, less frequent and shorter feedings, high milk-plasma ratios in heavy users.

Phencyclidine (PCP) Potent hallucinogen, infant intoxication.
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*Effect on maternal judgment or mood may also affect ability to care for infant.

**Although illicit opioids are not included in this table, it is the opinion of the NNEPQIN guideline workgroup that the potential risks associated with the illicit use of opioids carries with it risk for ingestion of other unknown substances that may be associated with significant risk to the infant in breastfeeding. Table adapted from: AAP COMMITTEE ON DRUGS. The Transfer of Drugs and Therapeutics Into Human Milk: An Update on Selected Topics. *Pediatrics*. 2013. See full article for individual drug references.

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ⁱ World Health Organization. (2014). Guidelines for the Identification and Management of Substance Use and Substance Use Disorders in Pregnancy. Retrieved on October 27, 2016 from: http://apps.who.int/iris/bitstream/10665/107130/1/9789241548731_eng.pdf

ⁱⁱ Patrick SW, Barfield WD, Poindexter BB, AAP COMMITTEE ON FETUS AND NEWBORN, COMMITTEE ON SUBSTANCE USE AND PREVENTION. Neonatal Opioid Withdrawal Syndrome. *Pediatrics*. 2020;146(5):e2020029074

ⁱⁱⁱ Academy of Breastfeeding Medicine Protocol Committee. (2015). ABM Clinical Protocol #21: Guidelines for Breastfeeding and Substance Use or Substance Use Disorder. *Breastfeeding Medicine*. 2015;10:135-141

^{iv} Hale T. (2021). Medications and Mothers' Milk. 19th edition. Amarillo, TX: Pharmasoftware. Springer Publishing Company, LLC.