Breastfeeding and Substance Use

Strategies Promoting Best Outcomes for Birthing Person-Infant Dyads

Colorado Perinatal Substance Use Integration Conference

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Avon, Colorado

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We do not have any relevant disclosures

Objectives

Identify	Identify recommendations by major medical organizations for safe breast feeding practices in the setting of substance use and use disorders
Categorize	Categorize different types of substance use into safe, uncertain, or unsafe categories to appropriately counsel birthing persons affected by substance use on the safety of breast feeding
Coordinate	Coordinate safe feeding practices for infants of substance-affected birthing persons across the continuum of care from prenatal to post-birth settings
Confirm	Confirm evidence for safety and benefits of breastfeeding for people receiving MOUD

Putting the Key Recommendations Into Action

Feed Infants Human Milk for the First 6 Months, If Possible

Exclusive human milk feeding is one of the best ways to start an infant off on the path of lifelong healthy nutrition. Exclusive human milk feeding, commonly referred to as exclusive breastfeeding, refers to an infant consuming only human milk, and not in combination with infant formula and/or complementary foods or beverages (including water), except for medications or vitamin and mineral supplementation.

Human milk can support an infant's nutrient needs for about the first 6 months of life, with the exception of vitamin D and potentially iron. In addition to nutrients, human milk includes bioactive substances and

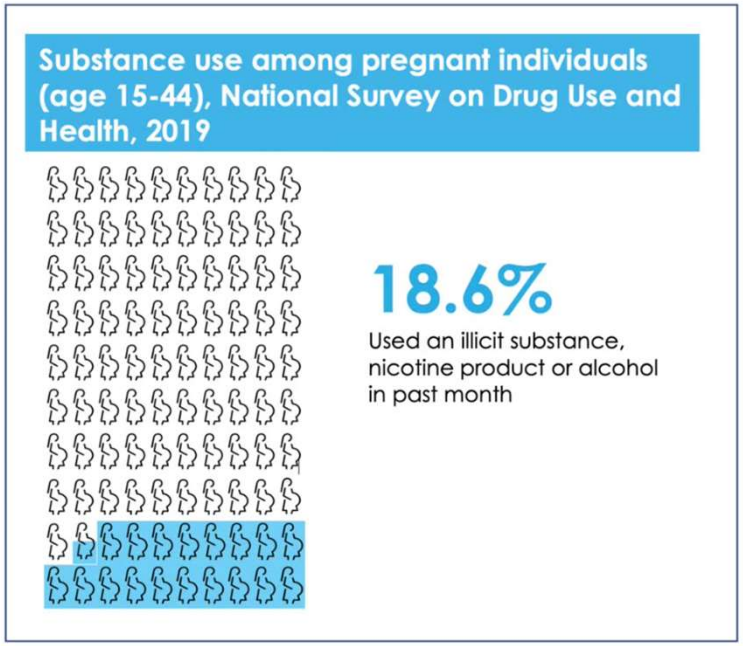

Fig. 1. Proportion of pregnant individuals with past-month substance use, National Survey on Drug Use and Health, 2019.

Smid. Substance Use Disorders Management in Perinatal Period. Obstet Gynecol 2022.

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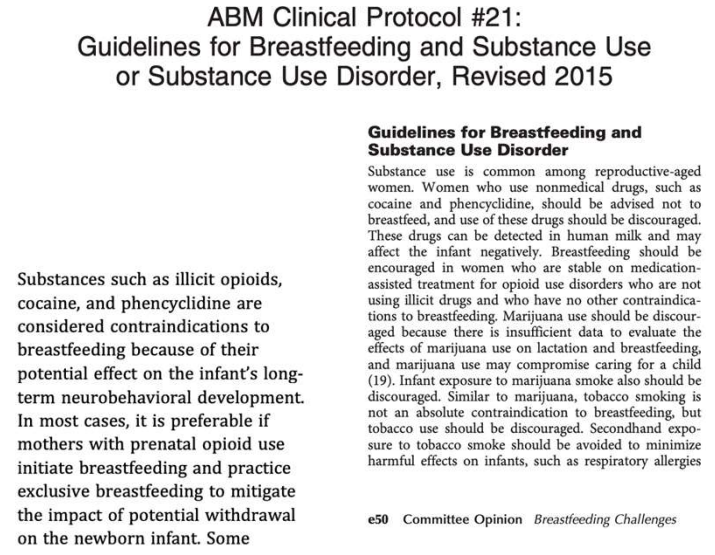
Major Medical Organizations

Statements

- Academy of Breastfeeding Medicine (ABM)
- American College of Obstetrics and Gynecology (ACOG)
- American Academy of Pediatrics (AAP)
- Food and Drug Administration (FDA)
- National Institute on Drug Abuse (NIDA)
- Infant Risk Center and Dr. Hale
- Substance Abuse and Mental Health Services Administration (SAMHSA)



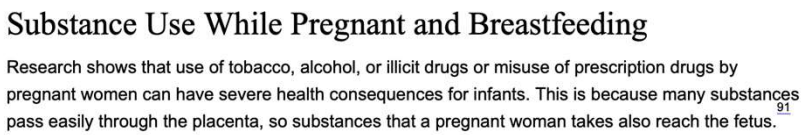
ABM Clinical Protocol #21:
Guidelines for Breastfeeding and Substance Use or Substance Use Disorder, Revised 2015

Substances such as illicit opioids, cocaine, and phencyclidine are considered contraindications to breastfeeding because of their potential effect on the infant's long-term neurobehavioral development. In most cases, it is preferable if mothers with prenatal opioid use initiate breastfeeding and practice exclusive breastfeeding to mitigate the impact of potential withdrawal on the newborn infant. Some

Guidelines for Breastfeeding and Substance Use Disorder

Substance use is common among reproductive-aged women. Women who use nonmedical drugs, such as cocaine and phencyclidine, should be advised not to breastfeed, and use of these drugs should be discouraged. These drugs can be detected in human milk and may affect the infant negatively. Breastfeeding should be encouraged in women who are stable on medication-assisted treatment for opioid use disorders who are not using illicit drugs and who have no other contraindications to breastfeeding. Marijuana use should be discouraged because there is insufficient data to evaluate the effects of marijuana use on lactation and breastfeeding, and marijuana use may compromise caring for a child (19). Infant exposure to marijuana smoke also should be discouraged. Similar to marijuana, tobacco smoking is not an absolute contraindication to breastfeeding, but tobacco use should be discouraged. Secondhand exposure to tobacco smoke should be avoided to minimize harmful effects on infants, such as respiratory allergies

e50 Committee Opinion *Breastfeeding Challenges*



Substance Use While Pregnant and Breastfeeding

Research shows that use of tobacco, alcohol, or illicit drugs or misuse of prescription drugs by pregnant women can have severe health consequences for infants. This is because many substances pass easily through the placenta, so substances that a pregnant woman takes also reach the fetus.[91]

Medical Contraindications to Breastfeeding

HIV	HTLV type I or II	Active, untreated tuberculosis*
Active herpes simplex virus lesion on nipple*	Active varicella lesion on nipple (chicken pox)*	Infant galactosemia

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Breast-feeding and Substance Use

SAFE

- Buprenorphine, Methadone, Prescribed Opioids by Medical Provider*
- Birthing person is:
  - Engaged in treatment program (permission to speak with program)
  - Plans to continue treatment program postpartum (ideally one year PP)
  - Abstinence from substance use for ? days (ABM 90 days)
  - Ability to maintain sobriety demonstrated in outpatient setting
  - Negative maternal toxicology test at delivery***
  - Engaged in prenatal care

Breast-feeding and Substance Use

UNSAFE

- Methamphetamines, Cocaine, PCP***
- Birthing person is encouraged NOT to breastfeed if:
  - Not engaged in treatment for substance use disorder (or declines consent for communication with treatment program?)
  - Not engaged in prenatal care
  - Positive toxicology test at admission (other than for cannabis)
  - No plans for postpartum treatment or pediatric care
  - Illicit substance use/significant alcohol use within 30 days prior to delivery
  - Any signs or behavior that person is active substance use
  - Chronic alcohol use

Breast-feeding and Substance Use

UNSURE

Cannabis

Alcohol

Cannabis and Breast Milk

Concentrations of Cannabinoids in Human Milk Samples, *N* = 54

	Minimum	First Quartile	Median	Third Quartile	Maximum	AQL	BQL
Δ9-THC, ng/mL	1.01	2.29	9.47	46.78	323.00	34	20
11-OH-THC, ng/mL	1.33	1.35	2.38	5.45	12.80	5	49
Cannabidiol, ng/mL	1.32	2.92	4.99	5.97	8.56	5	49

The concentration of cannabinol was BQL in all 54 samples. AQL, above quantification limit, defined as ≥1 ng/mL; BQL, below quantification limit, defined as <1 ng/mL.

Bertrand, K et al. Marijuana Use by Breastfeeding Mothers and Cannabinoid Concentrations in Breast Milk. (2018). Pediatrics. https://doi.org/10.1542/peds.2018-1076

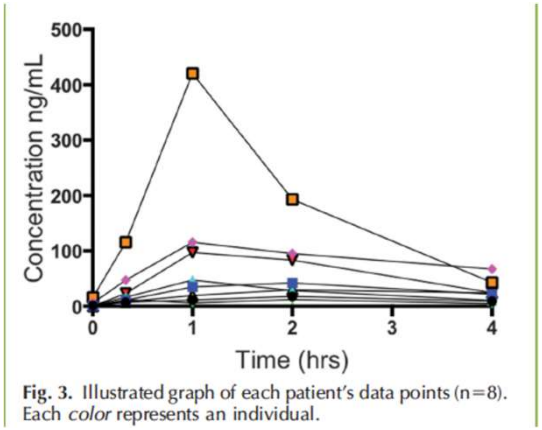
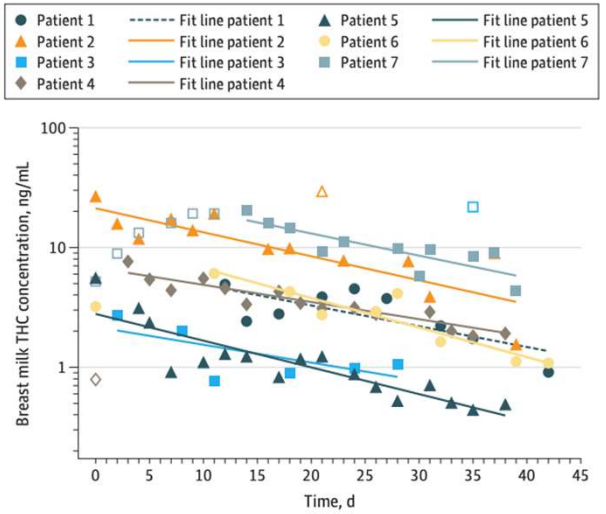


Fig. 3. Illustrated graph of each patient's data points (n=8). Each *color* represents an individual.

Baker, T et al. Transfer of Inhaled Cannabis Into Human Breastmilk. (2018). Obstetrics in Gynecology. Doc: 10.1097/AOG.0000000000002575

Figure. Pharmacokinetic Modeling for the Estimated Time to Elimination of Δ-9-Tetrahydrocannabinol (THC) in Breast Milk Following Delivery



Values represented with open shapes were omitted from the time-to-elimination analysis of THC in breast milk. The initial values for patient 7 were omitted until a peak THC level in breast milk was measured, and subsequent declining values were included in the time-to-elimination analysis.

Wymore, E et al. Persistence of delta-9-Tetrahydrocannabinol in Human Breast Milk. (2021). JAMA Pediatrics. Dot:10.1001/jamapediatrics.2020.6098

Breastfeeding and Cannabis

- Long Term Effects on Infant
  - ABM Review: – “The number of studies that have found concerning evidence (human and animal) outnumber the studies that have concluded no effect…a conservative approach is suggested until evidence can strongly support otherwise.”
  - AAP Clinical Report: – “Our current understanding of the ECS and its role in the development of neural circuitry early in fetal life also provides “theoretical justification” for the potential of marijuana substances, particularly THC, to affect neurodevelopment.”

Breastfeeding and Cannabis...Data Mourh, et al., Breastfeeding Medicine 2017 Ryan, et al., Pediatrics. 2018; 142(3).

Recommendations:

ABM Recommendation: – …*avoid further use or reduce their use as much as possible* and educate about long term neurobehavioral effects, – …we urge caution.

AAP Recommendation: – …*encouraged to abstain* from using any marijuana products…

CDC Recommendation: – Data are insufficient to say yes or no – …*encouraged to abstain*…

ACOG Recommendation: – …*marijuana use is discouraged*

ABM Clinical Protocol #21: Guideline For Breastfeeding and Substance Use or Substance Use Disorder, Revised 2015.
AAP: The Transfer of Drugs and Therapeutics into Human Breast Milk, 2013
InfantRisk.com, Thomas Hale, PhD, R.Ph AAP Use of Human Milk, 2012. Ryan, et al., Pediatrics. 2018; 142(3).

Alcohol and Breastfeeding

Women										
	Approximate Blood Alcohol Percentage									
Drinks	Body Weight in Pounds									
	90	100	120	140	160	180	200	220	240	
0	.00	.00	.00	.00	.00	.00	.00	.00	.00	Only Safe Driving Limit
1	.05	.05	.04	.03	.03	.03	.02	.02	.02	Driving Skills Significantly Affected
2	.10	.09	.08	.07	.06	.05	.05	.04	.04	
3	.15	.14	.11	.10	.09	.08	.07	.06	.06	
4	.20	.18	.15	.13	.11	.10	.09	.08	.08	Possible Criminal Penalties
5	.25	.23	.19	.16	.14	.13	.11	.10	.09	
6	.30	.27	.23	.19	.17	.15	.14	.12	.11	Legally Intoxicated
7	.35	.32	.27	.23	.20	.18	.16	.14	.13	
8	.40	.36	.30	.26	.23	.20	.18	.17	.15	Criminal Penalties
9	.45	.41	.34	.29	.26	.23	.20	.19	.17	
10	.51	.45	.38	.32	.28	.25	.23	.21	.19	Death Possible

Subtract .01% for each 40 minutes of drinking.
One drink is 1.25 oz. of 80 proof liquor, 12 oz. of beer, or 5 oz. of table wine.

Hours to Zero BAC for Women

Number of Drinks	Weight in Pounds							
	100	120	140	160	180	200	220	240
15	42	35	30	26	23	21	19	17
14	39	32	28	24.5	22	19	17.5	16
13	37	30	26	23	20	18	16	15
12	34	28	24	21	19	16.5	15	13.5
11	31	25	22	19	17	15	14	12
10	28	23	20	17.5	16	14	12.5	11
9	26	21.5	18.5	16	14.5	13	11.5	10.5
8	23	19	16.5	14.5	13	11.5	10.5	9.5
7	20	17	14.5	12.5	11.5	10	9	8
6	17.5	14	12.5	11	9.5	8.5	7.5	7
5	14.5	12	10.5	9	8	7	6.5	6
4	12	9.5	8.5	7	7	5.5	5	4.5
3	9	7	6.5	5.5	5	4.5	4	3.5
2	6	3	4	3.5	3	3	2.5	1.5
1	3	2.5	2	2	1.5	1.5	1.5	1

Alcohol and Breastfeeding

- Moderate alcohol consumption (1 standard drink per day) has not been shown to cause harm to breastfed infant.
- Alcohol level is highest within 30-60 minutes after consumption, and reduces over 2-3 hours (for one drink).
- Alcohol in breastmilk is the same as serum level, so “pumping and dumping” does not clear alcohol faster; hepatic metabolism of alcohol does.
- Caring for an infant while intoxicated is not safe.
- Driving with an infant in the car after drinking is not safe.
- “Mommy Drinking Culture” is real, pervasive, and something to discuss with our patients!

Myth-Busters: Breast-feeding and Substance Use

- Myth 1: People who use substances aren't interested in breastfeeding.
- Myth 2: Most people can't stop using substances in order to safely breastfeed.
- Myth 3: Any return to use of any substance is a contraindication to breastfeeding.

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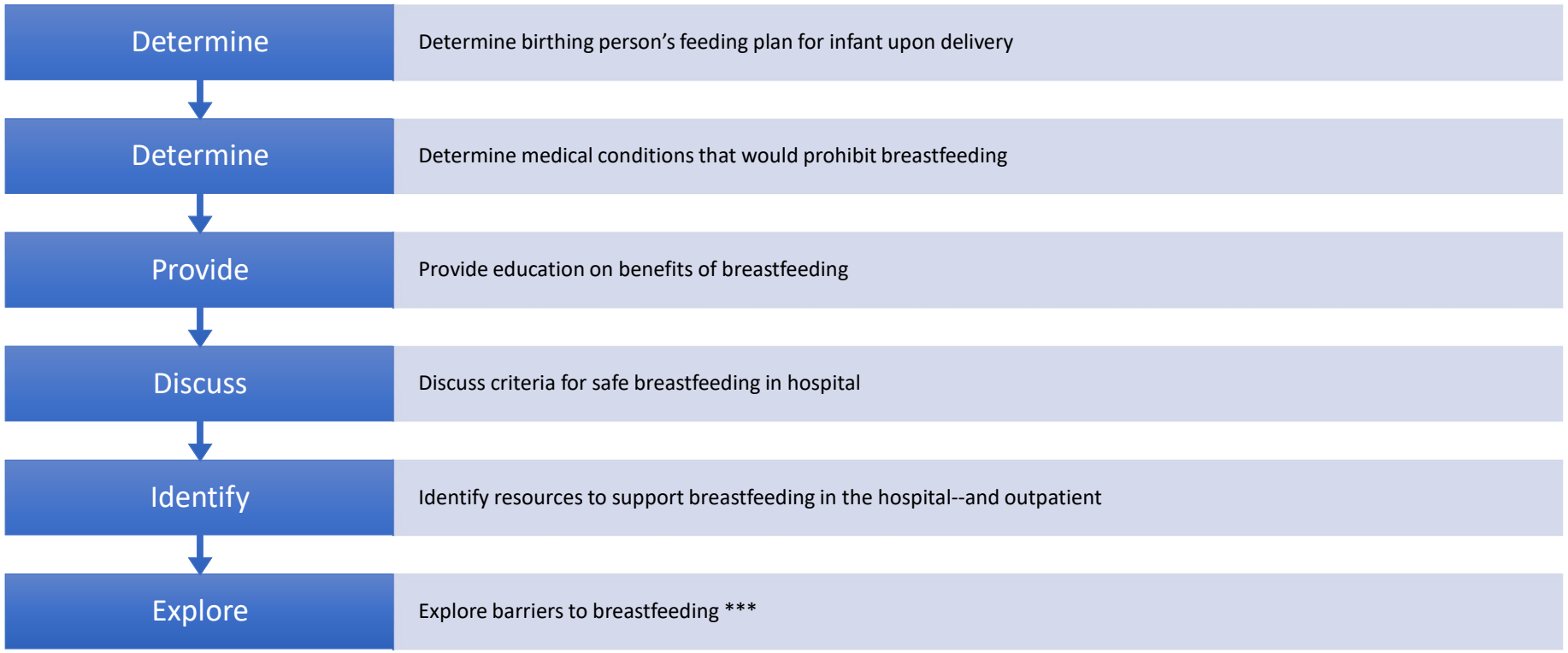
Prenatal breastfeeding counseling



Example of system-approach to safe breastfeeding in families affected by substance use: UCH

Prenatal counseling, option for consult with pediatric team prenatally

Inpatient:

- Establishment of breastfeeding group designation per CHoSEN QIc initiative
- Lactation consultation and collaboration
- Verbal hand-off with PCP of infant, Plan of Safe Care including infant nutrition plan

Outpatient:

- OB, addiction medicine, pediatric follow-up appointments made before discharge
- Outpatient lactation referral
- Sources of support identified

Relapse Prevention/Craving Reduction Medications

Opioid Use Disorder
- Methadone
- Buprenorphine
- Naltrexone

Stimulant Use Disorder
- Bupropion
- Bupropion/naltrexone
- Prescription Stimulants?

Nicotine Use Disorder
- Bupropion
- Varenicline
- NRT

Alcohol Use Disorder
- Naltrexone
- Acamprosate
- Gabapentin
- Baclofen

Cannabis Use Disorder
- N-acetyl Cysteine
- Gabapentin
- Treatment of nausea, pain, anxiety, sleep

Medications +++

- Therapy: individual, family, group
  - CBT, ACT, MET, etc
- Contingency Management
- Spirituality
- Physical Activity: exercise, yoga, etc.
- Social Connectedness
- Community Help Meetings/Online Forums
  - Women For Sobriety
  - SoberMommies.com
  - Tempest (jointempest.com)
- Legal Advocacy
  - Elephant Circle
  - National Advocates for Pregnant Women
  - Colorado Office of Respondent Parents' Counsel

National Advocates for Pregnant Women
N A P W

Women for Sobriety

SOBER MOMMIES

MOUD & Breastfeeding

Methadone—at any dose—is compatible with breastfeeding

Buprenorphine—at any dose and any formulation—is compatible with breastfeeding

Naltrexone—PO or long-acting injectable—is compatible with breastfeeding

Breastfeeding has been shown to significantly decrease NOWS incidence, severity, requirement for medication, and length of stay

For people who do not want to breastfeed, we can support them to replicate the benefits with lots of skin-to-skin bonding

Questions? Comments?
Thank you!

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