



Smallpox Vaccine

Revised: July 18, 2022.

Drug Levels and Effects

Summary of Use during Lactation

The Centers for Disease Control and Prevention recommends that nursing mothers not receive the smallpox vaccine, even if they are pumping their milk and feeding it to their infant by bottle feeding. If a woman received smallpox vaccine during pregnancy or breastfeeding, she should avoid breastfeeding and handling any baby for at least 3 to 4 weeks until the vaccination scab has separated from the vaccination site. The breasts can be pumped to maintain the milk supply, but the milk should be discarded.[1-3] The newer smallpox and monkeypox vaccine is a live, non-replicating vaccine and is not likely to have these problems during breastfeeding.

If a close contact of the nursing mother receives the smallpox vaccine should wash their hands with soap and warm water after direct contact with the vaccination site, or anything that has touched the vaccination site (bandages, clothing, towels, bedding, etc.). This will help prevent the spread of vaccinia virus to contacts, including young babies. If a breastfeeding mother who has had close contact with a person recently vaccinated against smallpox develops a rash, she should check with her healthcare provider to determine if the rash is related to the smallpox vaccine. If she has a vaccine-related rash, breastfeeding should not take place until all scabs from the rash have fallen off.[2]

Drug Levels

Maternal Levels. Smallpox vaccine has not been studied in lactating women. Live vaccinia virus can be inadvertently transmitted from a lactating mother to her breastfed infant. Infants are at high risk of developing serious complications from live vaccinia smallpox vaccination.[4]

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

One 5-month-old breastfed infant acquired a vaccinia lesion on her upper lip, tongue and cheek after her mother developed vaccinia lesions on both areolas. The mother's infection apparently originated from the father who had been vaccinated about 10 days prior. The exact mechanism of transmission was not apparent.[5]

Disclaimer: Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

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Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

Alternate Drugs to Consider

Monkeypox Vaccine

References

1. Acambis Inc. Medication Guide. ACAM2000 Smallpox (Vaccinia) Vaccine, Live. Version 1.0. 2007.
2. Prevention Centers for Disease Control and. Questions and answers about smallpox vaccination while pregnant or breastfeeding. 2009. Available at: <http://emergency.cdc.gov/agent/smallpox/faq/pregnancy.asp#downloadpage>
3. Wharton M, Strikas RA, Harpaz R, et al. Recommendations for using smallpox vaccine in a pre-event vaccination program. Supplemental recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR Recomm Rep. 2003;52:1–16. PubMed PMID: 12710832.
4. Acambis Inc. ACAM2000 (Smallpox [Vaccinia] Vaccine, Live) package insert. 2007.
5. Garde V, Harper D, Fairchok MP. Tertiary contact vaccinia in a breastfeeding infant. JAMA. 2004;291:725–7. PubMed PMID: 14871916.

Substance Identification

Substance Name

Smallpox Vaccine

Drug Class

Breast Feeding

Lactation

Milk, Human

Vaccines