

- [Travelers Health](#)
- [Destinations](#)
- [Find a Clinic](#) +
- [Travel Notices](#)
- [Travel Advice and Resources](#) +
- [Disease Directory](#) +
- Yellow Book** -
- Contents**
- Chapter 7**
- [Tables](#)
- [Maps](#)
- [Figures](#)
- [Boxes](#)
- [Updates](#)
- [About the Yellow Book](#) +
- [Frequently Asked Questions](#) +

7 Chapter 7 Family Travel

[Chapter 7 - Pregnant Travelers](#)

[Chapter 7 - Traveling Safely with Infants & Children](#)

Travel & Breastfeeding

Erica H. Anstey, Katherine R. Shealy

The medical preparation of a traveler who is breastfeeding differs only slightly from that of other travelers and depends in part on whether the mother and child will be separated or together during travel. Most mothers should be advised to continue breastfeeding their infants throughout travel. Before departure, mothers may wish to compile a list of local breastfeeding resources at their destination to have on hand. Clinicians and travelers can use the Find a Lactation Consultant Tool (www.ilca.org/why-ibclc/falc) to find contact information for experts at their destination. Clinicians and travelers can use La Leche League International's interactive map (www.llli.org/get-help) to find specific location and contact information for breastfeeding support group leaders and groups worldwide.

TRAVELING WITH A BREASTFEEDING CHILD

Breastfeeding provides unique benefits to mothers and children traveling together. Health care providers should explain clearly to breastfeeding mothers the value of continuing breastfeeding during travel. For the first 6 months of life, exclusive breastfeeding is recommended. This is especially important during travel because exclusive breastfeeding means feeding only breast milk, no other foods or drinks, which potentially protects infants from exposure to contamination and pathogens via foods or liquids. Additionally, feeding only at the breast protects infants from potential exposure to contamination from containers (bottles, cups, utensils).

Breastfeeding infants require no water supplementation, even in extreme heat environments. Breastfeeding protects children from eustachian tube pain and collapse during air travel, especially during ascent and descent, by allowing them to stabilize and gradually equalize internal and external air pressure.

Frequent, unrestricted breastfeeding opportunities ensure the mother's milk supply remains sufficient and the child's nutrition and hydration are ideal. Mothers who are concerned about breastfeeding away from home may feel more comfortable breastfeeding the child in a fabric carrier. In many countries around the world, breastfeeding in public places is more widely practiced than in the United States. US federal legislation protects mothers' and children's right to breastfeed anywhere they are otherwise authorized to be while on federal property, which includes US Customs areas, embassies, and consulates overseas.

TRAVELING WITHOUT A BREASTFEEDING CHILD

Before departure, a breastfeeding mother traveling without her breastfeeding infant or child may wish to express and store a supply of milk to be fed to the infant or child during her absence. Building a supply to be fed in her absence takes time and patience and is most successful when begun gradually, many weeks in advance of the mother's departure. A mother's milk supply can diminish if she does not express milk while away from her nursing child, but this does not need to be a reason to stop breastfeeding. Clinicians should help mothers determine the best course for breastfeeding based on a variety of factors, including the amount of time she has to prepare for her trip, the flexibility of her time while traveling, her options for expressing and storing milk while traveling, the duration of her travel, and her destination. A mother who returns to her nursing infant or child can continue breastfeeding and, if necessary, supplement as needed until her milk supply returns to its prior level. Often, after a mother returns from travel, her nursing infant or child will help bring her milk supply to its prior level. However, nursing infants or children who are separated from their mother for an extended time may have difficulty transitioning back to breastfeeding. Support from a lactation provider may be helpful if a mother is experiencing breastfeeding challenges after reuniting with her infant or child.

BREAST PUMPSAFETY

Mothers who plan to use an electric breast pump while traveling may need an electrical current adapter and converter and should have a back-up option available, including information on hand expression techniques (detailed hand expression instructions are available at <https://healthychildren.org/English/ages-stages/baby/breastfeeding/Pages/Hand-Expressing-Milk.aspx>) or a manual pump. Mothers using a breast pump should be sure to follow proper breast pump cleaning guidance (www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding/breastpump.html) to minimize potential contamination. Related guidance for cleaning infant feeding items such as bottles and the nipples, rings, and caps that go with them is available at www.cdc.gov/healthywater/hygiene/healthychildcare/infantfeeding/cleansanitize.html. Handwashing (www.cdc.gov/handwashing/when-how-handwashing.html) with soap and water prior to pumping and handling expressed milk is best, but if safe water is not immediately available, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. If cleaning the pump parts between uses will not be possible, mothers should bring extra sets of pump parts (for example, flanges, membranes, valves, connectors) to use until thorough cleaning of used parts is possible. Mothers may also consider packing a cleaning kit for breast pump parts, including a cleaning brush, dish soap, and portable drying rack or mesh bag to hang items in to air dry.

AIRTRAVEL

X-rays used in airport screenings have no effect on breastfeeding, breast milk, or the process of lactation. The Food and Drug Administration states that there are no known adverse effects from eating food, drinking beverages, or using medicine screened by x-ray. Airlines typically consider breast pumps as personal items to be carried onboard, similar to laptop computers, handbags, and diaper bags.

Before departure, people who will be traveling by air and expect to have expressed milk with them during travel need to carefully plan how they will transport the expressed milk. Airport security regulations for passengers carrying expressed milk vary internationally and are subject to change. In the United States, expressed milk and related infant and child feeding items are exempt from Transportation Security Administration (TSA) regulations limiting quantities of other liquids and gels. The Infant and Child Nourishment Exemption permits passengers to carry with them all expressed milk, ice, gel packs (frozen or unfrozen), and other accessories required to transport expressed milk through airport security checkpoints and onboard flights, regardless of whether the breastfeeding child is also traveling. At the beginning of the screening process, travelers should inform the TSA officer and separate the expressed milk and related accessories from the liquids, gels, and aerosols that are limited to 3.4 oz (100 mL) each, as subject to TSA's Liquids Rule (available at www.tsa.gov/travel/security-screening/liquids-rule). Travelers may find that having on hand the related TSA regulations for expressed milk (available at www.tsa.gov/travel/special-procedures/traveling-children) facilitates the screening process.

Travelers carrying expressed milk in checked luggage should refer to cooler pack storage guidelines in "Proper Handling and Storage of Human Milk" on CDC's website (www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm). Expressed milk is considered a food for individual use and is not considered a biohazard. International Air Transport Authority regulations for shipping category B biological substances (UN 3373) do not apply to expressed milk. Travelers shipping frozen milk should follow guidelines for shipping other frozen foods and liquids. Travelers planning to ship frozen milk may need to bring along supplies such as milk storage bags, coolers, shipping boxes, labels, packing tape, resealable bags, newspaper or brown lunch bags for wrapping frozen milk, and gloves or tongs for handling dry ice. Some shipping carriers provide temperature-controlled options that can be used for transporting expressed milk. Travelers should make sure in advance that transporting expressed milk will meet customs regulations, as these can vary by country. Expressed milk does not need to be declared at US Customs upon return to the United States.

IMMUNIZATIONS AND MEDICATIONS

In almost all situations, clinicians can and should select immunizations and medications for the nursing mother that are compatible with breastfeeding. In most circumstances, it is inappropriate to counsel mothers to wean in order to be vaccinated or to withhold vaccination due to breastfeeding status.

Breastfeeding and lactation do not affect maternal or infant dosage guidelines for any immunization or medication; children always require their own immunization or medication, regardless of maternal dose. In the absence of documented risk to the breastfeeding child of a particular maternal medication, the known risks of stopping breastfeeding generally outweigh a theoretical risk of exposure via breastfeeding.

Immunizations

Breastfeeding mothers and children should be vaccinated according to routine, recommended schedules. Administration of most live and inactivated vaccines does not affect breastfeeding, breast milk, or the process of lactation. Only 2 vaccines, vaccinia (smallpox) and yellow fever, require special consideration. Preventive vaccinia (smallpox) vaccine is contraindicated for use in breastfeeding mothers.

YELLOW FEVER VACCINE

Breastfeeding is a precaution for yellow fever vaccine administration. Three cases of yellow fever vaccine-associated neurologic disease (YEL-AND) have been reported in exclusively breastfed infants whose mothers were vaccinated with yellow fever vaccine. All 3 infants were diagnosed with encephalitis and aged <1 month at the time of exposure.

Until specific research data are available, yellow fever vaccine should be avoided in breastfeeding women. However, when nursing mothers must travel to a yellow fever-endemic area, these women should be vaccinated. Although there are no data, some experts recommend that breastfeeding women who receive yellow fever vaccine should temporarily suspend breastfeeding, pump, and discard milk for at least 2 weeks after vaccination before resuming breastfeeding (see [Chapter 4, Yellow Fever](#), for more information).

Medications

According to the American Academy of Pediatrics (AAP) 2013 Clinical Report: The Transfer of Drugs and Therapeutics into Human Breast Milk, many mothers are inappropriately advised to discontinue breastfeeding or avoid taking essential medications because of fears of adverse effects on their infants. The AAP's Tips for Giving Accurate Information to Mothers (www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Pages/Medications-and-Breastfeeding.aspx) advises that this is usually unnecessary because only a small proportion of medications are contraindicated in breastfeeding mothers or associated with adverse effects on their infants. The National Institutes for Health's database of information on drugs and lactation (LactMed) is an online database of clinical information about drugs and breastfeeding that is updated monthly (<https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm>). It provides information about the levels of substances in breast milk, levels in infant blood, potential effects in breastfeeding infants and on lactation itself, and alternate drugs to consider. The pharmaceutical reference guide, Medications and Mothers' Milk, is updated every 2 years and provides a comprehensive review of the compatibility or effects of approximately 1,100 drugs, vaccines, herbs, and chemicals on breastfeeding and includes risk categories, pharmacologic properties, interactions with other drugs, and suitable alternatives. The Medications and Mothers' Milk Online version is now available by subscription and is updated regularly and printable.

ANTIMALARIALS

Since chloroquine and mefloquine may be safely prescribed to infants, both are considered compatible with breastfeeding. Most experts consider short-term use of doxycycline compatible with breastfeeding. Primaquine may be used for breastfeeding mothers and children with normal G6PD levels. The mother and infant should both be tested for G6PD deficiency before primaquine is given to the breastfeeding mother. Because data are not yet available on the safety of atovaquone-proguanil prophylaxis in infants weighing <11 lb (5 kg), CDC does not recommend it to prevent malaria in women who are breastfeeding infants weighing <5 kg (see [Chapter 4, Malaria](#), for more information).

The quantity of antimalarial drugs transferred to breast milk is not enough to provide protection against malaria for the infant. The breastfeeding infant needs his or her own antimalarial drug.

TRAVELERS' DIARRHEA TREATMENT

Exclusive breastfeeding protects infants against travelers' diarrhea. Breastfeeding is ideal rehydration therapy. Children who are suspected of having travelers' diarrhea should be breastfed more frequently. Children in this situation should not be offered other fluids or foods that replace breastfeeding. Breastfeeding mothers with travelers' diarrhea should continue breastfeeding if possible and increase their own fluid intake. The organisms that cause travelers' diarrhea do not pass through breast milk. Breastfeeding mothers should carefully check the labels of over-the-counter antidiarrheal medications to avoid using bismuth subsalicylate compounds, which can lead to the transfer of salicylate to the child via breast milk. Fluoroquinolones and macrolides, which are commonly used to treat travelers' diarrhea, are excreted in breast milk. The decision about the use of antibiotics such as fluoroquinolones and macrolides in nursing mothers should be made in consultation with the child's primary health care provider. Most experts consider the use of short-term azithromycin compatible with breastfeeding. Use of oral rehydration salts by breastfeeding mothers and their children is fully compatible with breastfeeding.

SPECIAL CONSIDERATION: ZIKAVIRUS

CDC encourages mothers with Zika virus infection and living in or traveling to areas with ongoing Zika virus transmission to breastfeed their infants. Evidence suggests that the benefits of breastfeeding outweigh the risks of Zika virus transmission through breast milk. Updated information is available at www.cdc.gov/pregnancy/zika/testing-follow-up-zika-in-infants-children.html.

BIBLIOGRAPHY

- Academy of Breastfeeding Medicine (ABM) Protocol Committee. ABM clinical protocol #8: human milk storage information for home use for full-term infants, revised 2017. *Breastfeed Med*. 2017 Sept;12(7):390-5. Available from: <http://online.liebertpub.com/doi/full/10.1089/bfm.2017.29047.a1e>
- Fleming-Dutra KE, Nelson JM, Fischer M, Staples JE, Karwowski MP, Mead P, et al. Update: interim guidelines for health care providers caring for infants and children with possible Zika virus infection—United States, February 2016. *MMWR Morb Mortal Wkly Rep* 2016 Feb 26;65(7):182-7.
- Hale TW, Rowe HE. *Medications and Mothers' Milk*. 2017. New York: Springer Publishing Company, LLC; 2017.
- Kuhn S, Twele-Montecinos L, MacDonald J, Webster P, Law B. Case report: probable transmission of vaccine strain of yellow fever virus to an infant via breast milk. *CMAJ*. 2011 Mar 8;183(4):e243-5.
- Sachdev HP, Krishna J, Puri RK, Satyanarayana L, Kumar S. Water supplementation in exclusively breastfed infants during summer in the tropics. *Lancet*. 1991 Apr 20;337(8747):929-33.
- Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2012 Mar;129(3):e827-41.
- Staples JE, Gershman M, Fischer M. Yellow fever vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep*. 2010 Jul 30;59(RR-7):1-27.
- CDC. Travel Recommendations for Nursing Families [cited 2019 Apr 1]. Available from: <https://www.cdc.gov/nutrition/infantandtoddlernutrition/breastfeeding/travel-recommendations.html>.

[Chapter 7 - Pregnant Travelers](#)

[Chapter 7 - Traveling Safely with Infants & Children](#)