



# Infant and Young Child Feeding in Emergencies

TOOLKIT







## INTRODUCTION

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/introduction.html>

**Addressing infant and young child feeding in emergencies (IYCF-E) includes the promotion and prioritization of safe and appropriate feeding for infants and young children (0-2 years of age) during a natural disaster or other emergency. Effective IYCF-E planning and guidance considers the specific needs of infants and young children with the goal of protecting and maximizing the nutrition, health, and development of the child. IYCF-E is relevant anywhere in the world where natural disasters and public health emergencies occur. This toolkit will focus on IYCF-E preparedness and response efforts specific to the U.S. and its territories.**

### Purpose

The purpose of CDC's Infant and Young Child Feeding in Emergencies (IYCF-E) Toolkit is to optimize the capacity of emergency preparedness and response personnel to address the nutrition and feeding needs of young children and their families before, during, and after a natural disaster emergency response. This toolkit can be used to integrate IYCF-E into existing programs that coordinate emergency preparedness and response. The toolkit contains information on how to best support families and provide optimal nutrition to infants and young children during emergencies, specifically natural disasters. The toolkit includes printable materials and resources that can be used with or given to families.

### Intended Audiences

The primary audience for this toolkit is emergency preparedness and response personnel, such as first responders, relief workers, community health workers, and volunteers, as well as U.S. state and territory organizations who respond to domestic natural disasters and public health emergencies. Additional audiences may include health care providers, community partners, the public, families, and individuals.

### Are there other populations that are important to consider when preparing and responding to IYCF-E?

Infants and young children, as well as pregnant, postpartum, and lactating women have specific [access and functional needs](#) that may be exacerbated during and/or after a natural disaster or public health emergency. Pregnant women, particularly those who may birth during an emergency, need emergency preparation-related anticipatory guidance to be able to safely birth and feed their newborns. Postpartum lactation support during an emergency is critical as maternal lactation and newborn nutrition are mutually dependent. All infants and children have [unique needs](#) in emergencies, but caring for infants and children with special healthcare needs is often more complex because of their various health conditions and extra care requirements. They may have a hard time moving from one place to another, urgent or constant medical needs, difficulty communicating or have trouble with transitioning to different situations. They may also require specific equipment, such as feeding equipment (e.g., gastrostomy tube) which must be kept clean. A disaster can present all these difficulties at once.

## Why is infant and young child feeding important to address during emergencies?

Adequate nutrition is important in an emergency to keep families as healthy as possible. Infants and young children are particularly vulnerable during emergencies, when various exposures can lead to illness, infection, and potentially death. Breastfeeding is the safest way to feed infants and young children in emergency situations to prevent illness; however, natural disasters and public health emergencies can create unique challenges for breastfeeding families and feeding challenges for any family. Safe feeding and preparation of breast milk, complementary foods, infant formula, and appropriate cleaning and storing of infant feeding items are also important to 1) minimize morbidity risks associated with feeding and 2) maximize a child's health and development.

## What are some Challenges in IYCF-E?

### 1. Displacement

Families who are experiencing an emergency may have to leave their homes and travel to a different location, city, state, or to a shelter. In rare circumstances, family members could be separated during an emergency, which can cause feeding challenges, especially for a baby who is breastfed.

### 2. Lack of family friendly spaces

When families are relocated, such as to a disaster shelter setting, they may not have privacy to breastfeed or express breast milk or have access to lactation support. Without access and support, parents may be less likely to breastfeed or express their milk, leading them to consider using infant formula instead. Families also require space to adequately clean and store infant feeding supplies, safely prepare infant food, and to hygienically change diapers.

### 3. Food and water insecurity and lack of adequate nutrition for mother and child

Infants, children, and pregnant and postpartum women are vulnerable to undernutrition, especially during emergencies. Infants and young children can become undernourished faster than adults. Undernourished children, compared to children of healthy weight, can become ill, and have a harder time recovering due to impaired immune systems. Families who are experiencing an emergency that affects their safe



water source, power, access to resources, or the safety of their environment may find it more difficult to get, prepare, and store food. Displaced families may also be unsure of what food and safe drinkable water will be available at their destination, how long they will be away, or how long the emergency will last, which makes it hard to pack and plan for an emergency.

### 4. Potential risks associated with feeding infants formula

Breastfeeding is the safest way to feed a baby during a natural disaster. Some parents, prior to an emergency, may be mixed feeding (feeding both breast milk and infant formula) or exclusively using infant formula; in these cases, it is important to provide support and guidance to families on how to feed their baby safely during an emergency. The potential risks and challenges associated with feeding infant formula during an emergency include 1) lack of access to a supply of infant formula, 2) accessing safe water for mixing infant formula and cleaning infant feeding supplies, 3) storing and handling infant formula safely, and 4) having access to space and supplies to properly clean and store infant feeding items.

## 5. Worsening of disparities

During times of crisis, families who have been marginalized, and/or have access or functional needs, are often impacted the most. This can be especially difficult if they live in an area that suffers disproportionate effects from the disaster or emergency. Systemic and structural racism, as well as individual implicit biases, create additional barriers for communities most at risk during emergencies, which may intensify racial and ethnic disparities. Families in these communities may be more susceptible to the disruption of breastfeeding and face additional barriers to safe feeding. It is critical to apply a health equity lens when developing policies, trainings, and implementation strategies for disaster preparedness, response, and recovery.



**This toolkit aims to address challenges in infant and young child feeding in emergencies by providing practical information to assist those working with families during emergencies to keep families as healthy as possible. This toolkit may not address all infant and young child feeding challenges that families may face during a natural disaster. As additional IYCF-E preparedness and response information needs are identified, they will be added to this toolkit.**

### Note:

This toolkit provides information and guidance primarily for natural disaster situations. Breastfeeding is the safest way to feed infants and young children in emergency situations caused by natural disasters. Although rare, in certain emergencies breastfeeding may not be the safest option, although feeding previously expressed breast milk may be safe. For example, radiation and bioterrorism emergencies, specific infectious disease outbreaks, and some chemical exposures may require that families follow different guidance about safe infant and young child feeding. Relief workers and emergency preparedness and response personnel should follow emergency-specific guidance from local public health authorities when there may be exceptions to the recommendations to breastfeed.

### DISCLAIMER

The content in this toolkit is not intended to be a substitute for professional medical advice, diagnosis, or treatment. When needed, always consult with a qualified and licensed physician or other health care provider.



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# Health Equity Considerations

For states, communities, programs, and emergency responders to ensure health equity is included in your emergency preparedness and response efforts with families with young children.

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/health-equity.html>

Health equity is when everyone has the opportunity to be as healthy as possible. These opportunities include equitable access to and distribution of resources. When policies, programs, and systems that support health are equitable, poor health outcomes can be reduced, health disparities can be prevented, and the whole of society benefits.

There are different types of discrimination, such as disability discrimination, religious discrimination, and discrimination based on race, color, sex, gender, or sexual orientation. Disaster preparedness and relief personnel may come across individuals in affected areas who belong to several groups that historically have experienced discrimination. Therefore, individuals may have layered health and social inequities. These inequities, among others, have resulted in disparities in breastfeeding rates among different groups in the United States. Providing equitable and nondiscriminatory care to families throughout emergency preparedness, response, and recovery efforts may help to minimize health disparities during and following an emergency.

Families with young children and pregnant and lactating women may present with unique situations that require special considerations during emergencies.

## Here are some things your emergency preparedness and response team can do to help achieve health equity when working with families who have young children:

### General preparedness and relief efforts

- Avoid generalizing about a community:
  - Population groups are not alike in their health and living circumstances.
  - Race/ethnicity does not represent someone's socioeconomic status, and vice versa.
  - Diversity within and across communities varies with history, culture, norms, attitudes, behaviors, lived experience, and many other factors.
- Policies and implementation strategies for disaster relief that recognize and respect the diversity of the community are important. Consider the unique needs of the families affected by the emergency when developing interventions and communication strategies.
- Community engagement efforts can aim to help strengthen cross-sector partnerships, ensure

culturally and linguistically appropriate practices, include culturally appropriate community partners, build trust within communities, and promote social connection.

- Continue providing families with disability services before, during, and after public health emergencies. Ensure equal access to public health services for people with disabilities.
- Be aware that not every family is the same, and that some children are not being raised by their biological parents. Build flexibility into community guidance and public health communications to allow full participation for all caregivers.
- Learn about a family's infant feeding practices by asking open-ended questions such as "How have you been feeding your baby?" rather than questions that can be answered with yes or no such as "Are you breastfeeding your baby?"
- Some people have experienced violence, abuse, and trauma, which can impact infant feeding practices. It is important to provide these families with qualified [trauma-informed care](#), as well as access to privacy as needed. Hands-off lactation assistance may be preferred.
  - [Learn more about the impact of trauma and the role of a trauma-informed approach during public health emergencies.](#)

## Language

**Use non-stigmatizing, bias-free language. Consider the following when responding to emergencies:**

- Use person-first language. For example, use "people experiencing homelessness" instead of "the homeless" and "person with diabetes" instead of "diabetic."
  - Use terms that are inclusive of all gender identities such as "pregnant person," "breastfeeding parent," and "lactating person."
  - Do not refer to people as their race/ethnicity, for example Blacks, Hispanics, Latinos, Whites. Preferred terms for specific racial/ethnic groups are:
    - » American Indian or Alaska Native persons (identify by specific tribal affiliations when possible)
    - » Asian persons

- » Black or African American persons
- » Hispanic or Latino persons
- » Native Hawaiian or other Pacific Islander persons
- » White persons
- » People who identify with more than one race/ethnicity; people of more than one race/ethnicity



## Pronoun Use

- Ask which terms, names and pronouns are preferred by the individuals being supported.
- When introducing oneself, announcing one's own pronouns may make it easier for others to share their pronouns.
- If an individual corrects your pronoun use, it's best to briefly acknowledge the mistake and correct the pronoun going forward. Spending too much time apologizing for the error can bring more attention and discomfort to the simple mistake.

## Remember that:

- Transgender and nonbinary-gendered individuals may give birth and breastfeed or feed at the chest (chestfeed). The gender identity or expression of [transgender](#) individuals is different from their sex at birth. The gender identity of nonbinary-gendered individuals does not fit neatly into either man or woman.
- An individual does not need to have given birth to breastfeed or chestfeed.
- Some families may have other preferred terminology for how they feed their babies, such as nursing, chestfeeding, or bodyfeeding.





**CDC offers resources to assist health departments with their strategic planning to strengthen public health preparedness capabilities and help address health equity. A few key resources include the following:**

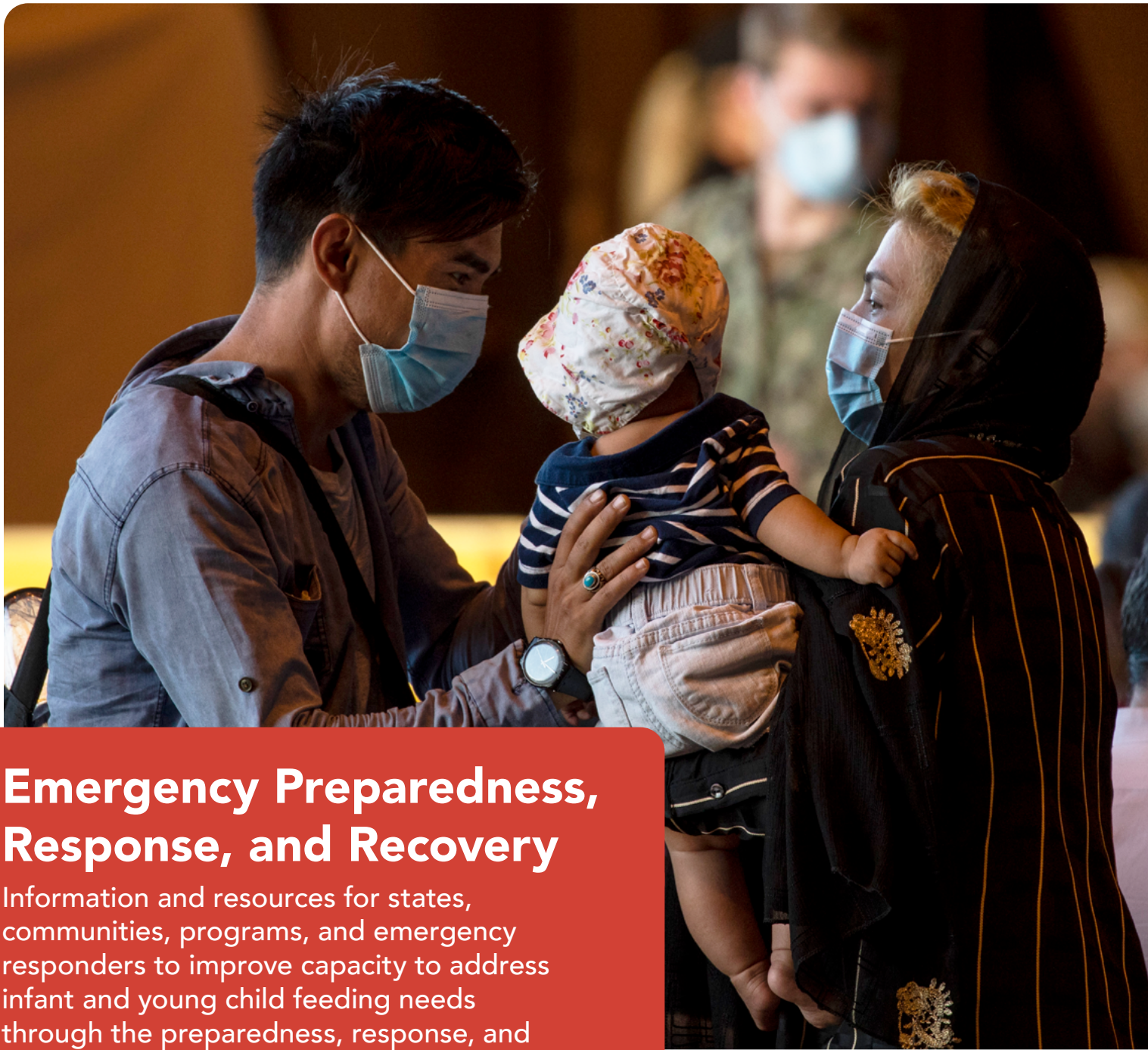
- The [Access and Functional Needs Toolkit](#) provides a framework to organize planning for broad groups of people with disabilities and others with access and functional needs, recommended action steps, and noteworthy practices from the field.
- The [Community Assessment for Public Health Emergency Response \(CASPER\)](#) toolkit can assist local, state, regional, or federal officials to conduct a rapid needs assessment before or following an emergency to determine the health status, basic needs, or knowledge, attitudes, and practices of a community in a quick and low-cost manner.
- The [Disability and Health Emergency Preparedness](#) webpage offers resources that public health professionals, emergency personnel and communities can use to create emergency preparedness and response plans that are inclusive of people with disabilities.
- The [tribal support webpage](#) provides information for tribal governments and their partners to serve tribal communities more effectively and includes consideration of the unique cultural and traditional needs of those communities.
- [Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups](#) provides examples of approaches and tools that can help emergency managers identify, plan for, and assist at-risk populations.
- [The Health Equity Guiding Principles for Inclusive Communication](#) provides information to help public health professionals, particularly health communicators, to ensure their communication products and strategies adapt to the specific cultural, linguistic, environmental, and historical situation of each population or audience of focus.



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#### LEARN MORE:

- [CDC Public Health Preparedness Resources](#)
- [ABM Clinical Protocol #33: Lactation Care for Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Plus Patients](#)



## Emergency Preparedness, Response, and Recovery

Information and resources for states, communities, programs, and emergency responders to improve capacity to address infant and young child feeding needs through the preparedness, response, and recovery phases of emergency preparedness.

Infants and young children are vulnerable during emergencies; however, taking steps to ensure they are safely and appropriately fed can be instrumental in keeping them healthy. Breastfeeding remains the safest infant feeding option in a natural disaster situation. Breast milk helps protect babies from diseases such as diarrhea and respiratory infections and provides the calories and

nutrients babies need. This protection is especially important during natural disasters when contaminated water and unsanitary environments can increase the risk of disease. Supporting breastfeeding families during emergencies is critical because when breastfeeding is interrupted, significant resources are needed from emergency responders to maintain safe feeding.



Infants are fed in a variety of ways, all of which need to be considered when planning for and responding to an emergency. Some infants may be exclusively breastfed, while others may be receiving both breast milk and infant formula, or only infant formula. Other infants may receive expressed breast milk, but not feed directly at the breast. Some infants require specialized infant formulas and enteral tube feeds (e.g., nasogastric tube, G-tube) or total parenteral nutrition (TPN) which requires specialized knowledge, equipment, and a power source. After the age of about 6 months, infants are also eating solid foods in addition to breast milk or infant formula and over time, young children will transition to more solid foods and other liquids.

Parents and caregivers of formula fed infants may not have access to safe water, electricity, gas, or cleaning supplies during an emergency, impacting their ability to safely prepare infant formula or clean infant feeding items, such as bottles, nipples, utensils, and plates. These challenges increase the risk of serious illness for infants who are fed infant formula during emergencies.

Infant and young child feeding information should be coordinated and integrated into emergency

## DID YOU KNOW?

The American Academy of Pediatrics and the Dietary Guidelines for Americans 2020-2025 recommend that infants be exclusively breastfed for about 6 months and then continuing breastfeeding while introducing solid foods for 1 year or longer.

WHO recommends exclusive breastfeeding up to 6 months of age with continued breastfeeding along with appropriate solid foods up to 2 years of age or longer.

Breastfeeding can help protect both mom and baby against some short- and long-term illnesses and diseases.

preparedness and response efforts for all maternal and child health populations. The following sections on preparedness, response, and recovery provide information and resources for how to best address the range of infant feeding practices throughout each of these phases.



# Preparedness

In the event of a natural disaster or other emergency, be prepared for challenges that can impact infant and young child feeding, which may include power outages, unhealthy living spaces, unsafe water, disrupted access to supplies, and stressful situations.



## Training and Education

Training for emergency relief workers is important to understand how to appropriately support the needs of infants and young children during an emergency. Relief workers can be prepared in the following ways:

- Learn about [breastfeeding](#) prior to an emergency.
- Gather surveillance data about [breastfeeding rates](#) in the state or community. Breastfeeding initiation, exclusivity, and duration rates can be used to plan for services and supplies that will be needed.
- Learn about safe storage of premixed, or ready-to-feed (RTF), infant formula.
- Learn about safer [preparation of powdered infant formula](#) and how to ensure safe infant formula feeding during emergencies.
- Learn about [complementary feeding](#) for 6 to 24 month old children
- Learn about how to safely store and [clean infant feeding](#) items such as bottles, and [breast pumps](#).
- Learn about [cup feeding](#), an alternative way to feed infants when they are unable to feed directly at the breast and when infant feeding items cannot be cleaned properly.
- Learn about [hand expression](#), a technique used to release milk from the breast by hand, without using a breast pump.
- Learn about how to [take action to support and promote breastfeeding](#).
- Consider training to become a lactation support provider.
- Learn about creating [safe family-friendly spaces in shelters](#) and [supporting infant and young child feeding in shelters](#).



### DID YOU KNOW?

Teaching families how to be prepared is one of the best ways to make sure that infants and young children will be safely and appropriately fed during and after an emergency.

[Learn more about what steps expecting and new parents can take to prepare for an emergency.](#)



## Making Connections

- Work with local health care providers and lactation support providers to teach families how to create an individual preparedness plan and what to include in an [emergency kit](#).
- Know about the [different types of lactation support providers](#) and how to [connect with lactation support providers](#) in your community.
- Build partnerships with community-based lactation-related services, such as:
  - [State, local, tribal, and cultural breastfeeding coalitions](#)
  - The [Special Supplemental Nutrition Program for Women, Infants, and Children \(WIC\) clinics](#)
  - [Baby Cafes](#)
  - Hospital-based lactation programs
  - [La Leche League](#)
  - [Breastfeeding USA](#) (Locate local support, warmline available 612-293-6622)
- [Reaching Our Sisters Everywhere \(ROSE\)](#)
- [Human milk banks](#)
- Breastfeeding support services might also be integrated into public health programs such as [Healthy Start](#), [Early Head Start](#), [Nurse Family Partnership](#), [Federally Qualified Health Centers](#), hospital outpatient clinics, and the [Maternal, Infant, and Early Childhood Home Visiting program \(MIECHV\)](#)
- Become familiar with lactation support services such as the National Women's Health and Breastfeeding Helpline, which is available Monday through Friday 9am-6pm ET at 1-800-994-9662.
- Connect with federal, state, tribal, and local emergency relief organizations to plan and coordinate a process for acquiring infant feeding supplies.
- Build partnerships with local organizations that provide social services (e.g., [WIC](#), [Supplemental Nutrition Assistance Program \[SNAP\]](#), faith-based organizations, community centers).



## Creating a Plan

- Ensure infant and young child feeding support, such as safe cleaning of infant feeding items and lactation support, is included in your community's disaster preparedness plans.
- Develop and conduct [tabletop exercises](#) that incorporate infant and young child feeding considerations. Engage the community in planning and practicing these exercises. This will increase awareness about IYCF-E, identify gaps in preparedness activities, and strengthen partnerships.
- Review training resources specific to [children in disasters](#).
- [Identify post-disaster epidemiologic indicators](#) for pregnant and postpartum women and their infants to assist in identifying post-disaster needs for your state or locality. Learn about the process for developing post-disaster indicators:
  - [Zotti ME, Williams AM, Wako E. Post-disaster health indicators for pregnant and postpartum women and infants. Matern Child Health J. 2015 Jun;19\(6\):1179-88.](#)

- When selecting shelter locations, be sure that they have adequate washing stations for cleaning infant feeding items separately from diapering stations. Infant feeding items should not be washed in restrooms.
- Ensure all preparedness plans include a plan for when there is no safe water.
- Create a plan to provide families with timely direct assistance to address infant feeding challenges during emergencies. This can be done by:
  - Setting up an onsite lactation support clinic
  - Identifying alternative options, such as telehealth or on-site visits from local lactation support providers or home visiting nurses who support breastfeeding families
- Build partnerships with [human milk banks](#) (even if they are in a different state) to develop a process to acquire donor human milk for families in need during emergencies.
- Develop written guidelines that address obtaining infant formula and safe storage, handling, and [distribution of infant formula](#), including the following:
  - Infant formula supply
    - » For infants already being fed formula, ready-to-feed (RTF) infant formula is the safest option during an emergency (it does not need to be mixed with water and it is available in sterile individual single-use containers).
    - » How to safely store and use powdered infant formula when RTF is not available.
  - Storage locations and temperatures
    - » Extreme heat can affect the safety of RTF infant formula.
    - » Keep all infant formula and related supplies out of view of people staying in the shelter to avoid unintentional promotion or marketing of these products.
  - Distribution to families
  - Tracking expiration dates and potential recalls
  - [How to respond to infant formula donations](#)
  - Calculating infant formula needs in an emergency
- Providing accurate information to families on [storage, handling, and preparation of powdered infant formula](#), as well as [cleaning instructions](#)
- Consider the needs of children transitioning to solid food in plans to obtain and provide foods at the relief shelter. Think about which tools may be needed to prepare foods appropriately (e.g., blender) for these children.
- Plan for how the shelter will accommodate children with special healthcare needs who are technology dependent and require electricity for their feeds. This may require additional resources (e.g., a back-up power source, extra batteries, coolers, ice packs),
- Create a plan for the coordination of infant feeding support for families who are in non-congregate sheltering settings (hotel, motel, dormitories, converted building space). These settings may not have adequate resources for infant feeding. Make sure these families have infant feeding supplies and that there are community referrals in place (e.g., volunteers, community health workers, first responders) for additional support. Some local community organizations can also do home visits, which may be helpful for families in non-congregate sheltering settings.







## Response

If you are an emergency relief worker consider the following:

### Identify Resource Needs

- Document the number of pregnant women and families with children under the age of 2 years and how they are fed to determine resources needed.
- Conduct a [rapid needs assessment](#):
  - A rapid needs assessment that includes infant and young child feeding questions can help to ensure feeding needs (supplies and support) can be appropriately addressed.
  - A [rapid environmental health assessment](#) of shelter conditions can help to identify and document other immediate needs in the shelter, including safe areas for children and families.

### Create a Safe Space for All Families

Emergency situations can be very stressful and traumatic. It is important to help families feel safe and supported to provide adequate food and water for their children.

- Keep families together.
  - [Create safe family-friendly spaces in shelters](#). Resource: [Shelter Field Guide](#).
- Reassure breastfeeding women that they can and should continue to breastfeed and offer the breast as often as their infants want.
- Consider grouping families with infants and young children together to encourage mutual aid and support resiliency.

### It's All About Access

- Make pregnant, postpartum, and lactating women one priority group for access to food and water, shelter, healthcare, protection, psychosocial support, or other essential support. Pregnant,

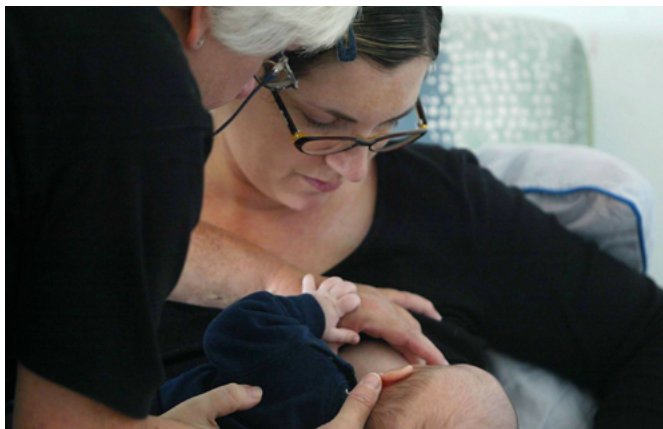
postpartum, and lactating women should be provided with food and water to meet the additional caloric intake needed for their bodies to optimally support pregnancy or lactation.

- Be ready to connect parents and caregivers to lactation support providers if they need help.
- Coordinate care for families needing referrals to appropriate psychological first aid and/or mental health and psychosocial support providers and resources.

### Cleanliness is Key

- For infants who are not breastfeeding or being fed breast milk, ready-to-feed (RTF) infant formula is safest. Powdered infant formula is not sterile and thus, must be carefully [prepared and stored properly](#).
- Make disposable cups available, since bottles and nipples are hard to clean effectively when there is limited access to clean water.
- Make disposable bibs, plates, bowls, and utensils available for feeding children.
- Provide antibacterial cleansing wipes for families to clean surfaces before and after feeding their children.
- If there is safe water, ensure access to cleaning items such as washbasin, dish soap, cleaning brushes, and a mesh bag to hang dry infant and toddler feeding items. Educate families about [how to clean infant feeding items](#).
- For families who rely on a breast pump, ensure access to safe water and cleaning items like a washbasin, dish soap, cleaning brushes, and a mesh bag to hang dry breast pump kit parts.

- Educate families about [safe storage and preparation of breast milk](#) considering available resources (e.g., refrigeration)
- Provide education to families about where and [how to properly clean breast pump kits while they are in the shelter setting](#).



## Education is Essential

- Talk to breastfeeding women about the importance of continuing to give breast milk to their child during and after the emergency.
  - Breastfeeding infants under 6 months of age require no water supplementation, even in extreme heat environments.
  - With the support of a lactation provider, mothers who are partially breastfeeding their child can breastfeed more frequently to increase milk supply and decrease reliance on infant formula.
- A request for infant formula from a parent does not necessarily indicate an actual need for infant formula. Some families may be worried about having enough breast milk for their child and request infant formula to supplement. When these families request formula, a [rapid needs assessment](#) can help to identify feeding support, education, and resources that might be needed to support continued breastfeeding and ensure the child is receiving adequate nutrition.
- Teach women who rely on a breast pump how to [safely store their milk](#) and how to properly [clean breast pump kits](#) and [infant feeding items](#). It is important to provide education that takes into consideration the immediate available resources (e.g., refrigeration, safe water, cleaning supplies, heat source).
- If appropriate, inform women who had breastfeeding interrupted, or who previously breastfed, but currently feed infant formula, that they may be able to [relactate](#) to provide their child with their milk. Connect them to a lactation support provider for relactation support if they are interested in working to relactate.
- If RTF infant formula is not available for formula feeding families, teach families how to safely prepare and feed powdered infant formula in an emergency setting. Even though these families may have prior experience preparing and feeding powdered infant formula, there are risks in emergency situations that require additional precautions.
- The provision of infant formula during an emergency should include support and education to ensure safe preparation and handling. Education and support can include:
  - individualized, context-specific advice,
  - practical training on [safe preparation of powdered infant formula](#) (if RTF infant formula is not available),
  - practical training on [feeding infants from a cup](#),
  - practical training on cleaning infant feeding items such as cups, or bottles and nipples (if disposable cups are not available),
  - provision of equipment and supplies to safely [store, prepare, and feed infant formula](#) and [clean all non-disposable infant feeding items](#), and
  - regular follow-up with families, in coordination with other emergency responders.
- When children start eating solid foods, they start out with smooth or mashed foods and then begin to eat finely chopped or ground foods as they get older. Provide families whose children are eating solid foods with [information](#) on where to prepare foods for their children. Provide preparation materials (e.g., utensils, a blender) to mash or chop foods as needed.

## Key Things to Consider

- **DO NOT** include infant formula in infant/toddler kits, household packages or other general distributions. Infant formula should not be located in areas where other foods are freely available or being distributed or served.



- **DO:** have a trained health or nutrition worker provide these on a case-by-case basis following a [rapid needs assessment](#).
- **DO:** provide RTF infant formula to infants who are already formula feeding or have had breastfeeding interrupted in certain situations (if donor milk is unavailable).
- **DO:** Store infant formula in a location out of public view; this will help ensure that it is appropriately distributed along with information about how to safely prepare it.
- **DO NOT** call for, accept, or distribute [donations of manual or electric breast pumps](#). Without power, mothers or caregivers cannot use an electric breast pump or safely refrigerate their expressed milk. Furthermore, keeping pump parts clean is an additional challenge when the water is unsafe.
- **DO:** For families that rely on a breast pump to feed their infants, encourage them to breastfeed at the breast more and/or [hand express](#) their milk for feedings. If this is not possible, make sure they have access to electricity and/or batteries to operate the pump, and a refrigerator to store their milk. These families also need access to safe water and cleaning supplies to [properly clean the pump part kits](#) after every use. If proper cleaning of breast pumps is not possible, they should not be used, and hand expression should be prioritized.
- **DO NOT** call for, accept, or distribute [donations of infant formula](#) or toddler milks. Emergency supplies of infant formula are managed and provided by official relief organizations. It's important for relief organizations to manage the process of getting and distributing infant formula so that they can make sure it is stored at a safe temperature and given only to families that need it. They will also make sure that families get the information and supplies they need to feed their babies safely. [Learn more about formula donations](#).
- **DO NOT** call for, accept, or distribute [donations of reusable feeding equipment](#) (such as feeding bottles and nipples) and pacifiers.
  - **DO:** Conduct an infant feeding [rapid needs assessment](#). These items should only be given to families following an assessment that determines need, confirmation that there is a safe way to properly clean these items, and education on [how to properly clean these items during the emergency](#).



#### KEY AREAS FOR ACTION:

- Actively support breastfeeding by putting written guidelines in place.
- Make sure that all volunteers and relief workers are trained to support infant and young child feeding.
- Provide appropriate safe feeding information to families who give their infants infant formula.
- Provide education to families about safe complementary feeding.
- Prevent donations and uncontrolled distribution of infant formula and other products, such as infant feeding items that need cleaning and that might not be safe during or following an emergency.
- Support maternal wellbeing by providing access to mental health resources and providers.
- Target support to high-risk infants, children, and their caregivers who are identified during the rapid needs assessment.



## Recovery

Disasters can be traumatizing for families. Emergency responders should be aware that individuals and communities may have experienced a variety of traumas in their lives and need to consider a survivor's physical, psychological, and emotional safety and well-being after a disaster.

- Take a [trauma-informed approach to care](#) during emergency response and recovery efforts.
- Teach families [stress-reducing strategies](#).
- Provide information about [caring for children in disasters](#).
- Connect people to mental health support services.

## Continuity of Care

Continuity of care in breastfeeding support is achieved by consistent, collaborative, and seamless delivery of high-quality services for families from the prenatal period until no longer breastfeeding. Continuity of care results in transitions of care that are coordinated and fully supportive of families throughout their breastfeeding journey. Continuity of care is important to ensure that families continue to receive the support needed to feed their children safely.

- Assist families to connect with their health care providers and other social services to ensure their nutritional, physical, and mental health needs will be met during the recovery phase following an emergency.
- When breastfed infants do not have access to their mothers' own milk, work to facilitate access to pasteurized donor human milk.

- If breastfeeding was disrupted, support families with [relactation or resuming exclusive breastfeeding, and connect them to lactation support](#).
- If infants are dependent on infant formula, they will need infant formula, feeding supplies such as cups or bottles and nipples, and cleaning supplies through the recovery phase following a disaster.

## Reunification

[Reunification](#) is the process of ensuring that children return to the care of their parent(s) and family as quickly as possible after an emergency. Most parents in the United States work outside the home and young children may attend childcare. Emergencies increase the possibility for children to become





separated from their parents or legal guardians. During the evacuation or sheltering process, parents may find that they are at work and their children are in childcare, school, a recreational facility, or other location. Keep children safe while they are separated from their families. In situations where children are separated from their usual caregivers, designate a trusted and trained person to act as a consistent substitute caregiver, particularly for young children. Keep siblings and friends together when possible.

- Learn more about creating a [reunification plan](#).

## Post-disaster assessment and surveillance

Identify post-disaster epidemiologic indicators for pregnant and postpartum women and their infants and promote uniformity of measurement of disaster effects among this population to assist public health practitioners to identify post-disaster needs. Select indicators and measures appropriate for the setting.

- [Post-disaster Indicators for Pregnant and Postpartum Women and Infants](#): This list includes common epidemiologic indicators for pregnant and postpartum women and infants who are affected by disasters and offers suggested measurement approaches. Learn about the process for developing post-disaster indicators:
  - [Zotti ME, Williams AM, Wako E. Post-disaster health indicators for pregnant and postpartum women and infants. Matern Child Health J. 2015 Jun;19\(6\):1179-88.](#)
- [Sample Protocol for Using Post-Disaster Indicators for Pregnant and Postpartum Women and Infants](#): Provides information on how post-disaster health indicators can be used when collecting supplemental information on pregnant and postpartum women.



### LEARN MORE:

The Infant Feeding in Emergencies (IFE) Core Group's [Operational Guidance Document for Infant and Young Child Feeding \(IYCF\) in Disaster Emergencies](#) can be used as an additional resource to effectively organize and respond to emergencies. This document outlines emergency preparedness, response, and recovery worldwide, but can also be applied nationally.

County level breastfeeding initiation rates can be found on [CDC's website](#). These surveillance data can be used to plan for services and supplies that will be needed.



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# Facts About Infant Feeding During Emergencies

During a natural disaster, the safest way to feed an infant is breastfeeding. Emergency responders can learn more about common questions and concerns related to infant feeding during emergencies.

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/facts.html>

## 1. Even under stress, mothers can still breastfeed during and after a natural disaster.

Mothers can continue to produce breast milk during times of physical and emotional stress. However, the release (or letdown) of breast milk can be affected by stress. Lactating women who are under stress may need support to encourage the letdown of milk. Keep breastfeeding women in close contact with their babies so they can nurse frequently. Timely practical and emotional support can reduce stress related to infant feeding concerns. Because of the release of certain hormones, breastfeeding may even reduce stress for the parent and baby during challenging situations.

## 2. Extra precautions are needed for families who are feeding infant formula to their child.

Ready-to-feed infant formula (RTF) is the safest option for formula feeding families during an emergency

because it does not need to be mixed with water and it is available in sterile individual single-use containers. When powdered infant formula is the only option, extra care must be taken to ensure that it does not get contaminated. Extra precautions include preparing infant formula with safe water and a clean measuring scoop, storing the infant formula can in a cool, dry place with the lid tightly closed, and carefully cleaning all infant feeding supplies such as bottles and nipples.

Powdered infant formula should be prepared using the exact amount of water and formula listed on the container. Use the exact measurement of the scoop provided. NEVER dilute infant formula - too much water may not meet the nutritional needs of the infant. Too little water may cause an infant's kidneys and digestive system to work too hard and may cause dehydration. It is important to use prepared infant formula within 2 hours of preparation and within 1 hour from when feeding begins. Any infant formula that is left in the bottle after feeding the baby must be discarded. Learn more about how to safely [prepare and store powdered infant formula during emergencies](#).



### 3. Infant formula feeding requires more equipment, resources, and effort than breastfeeding during a natural disaster.

Infant formula feeding requires [safe water](#) to [prepare the formula](#) and cleaning supplies to [clean bottles, nipples, and other parts](#). These resources may not be readily available in an emergency. Powdered infant formula cannot be made in advance without adequate refrigeration, which can create additional barriers to families using infant formula. Breastfeeding is the safest way to feed a baby during an emergency and provides the nutrients and infection protection that babies need. Infants who are unable to breastfeed or be fed expressed breast milk can be fed with ready-to-feed infant formula, which does not require adding water for preparation.

### 4. With support, parents can feed their baby expressed milk during a natural disaster.

In cases where parents were feeding their baby expressed breast milk prior to a disaster or are currently unable to feed their baby at the breast, learning how to [express milk by hand](#) will help them to continue to provide breast milk to their child. Relief staff can make sure there is designated space that is safe and private for lactating women to express milk by hand. Lactation support should be provided to families to learn how to hand express if needed. [Expressed breast milk can be fed to a baby in a disposable cup](#). Expressing milk by hand is preferred to using a breast pump when proper cleaning of pump equipment is not possible or when a power supply is not available for an electric pump.

### 5. Most parents can continue to breastfeed even when they or their infant is sick.

Breast milk contains antibodies and other immunological factors that can help protect infants from illness, even if the lactating woman is ill with conditions such as the flu or diarrhea. When an infant is sick, the parent can usually continue to nurse, or feed expressed milk to keep their baby hydrated as

well. There are [rare exceptions](#) when breast milk or breastfeeding is not recommended, such as when the [lactating woman is ill](#) with specific transmissible conditions or taking [certain medications](#).



### 6. Parents can continue to breastfeed even if they are not able to eat a well-balanced diet or if they are hungry during a natural disaster.

Parents who breastfeed can support both their own health and their baby's health by eating healthy and nutritious meals and snacks when possible and drinking plenty of water to stay hydrated during an emergency. However, parents who are hungry or have limited access to healthy foods are still able to breastfeed. Breast milk provides the appropriate number of calories and optimal nutrition to support the growth and health of the infant. Feeding infant formula instead of offering the breast will decrease a parent's milk supply and impact their ability to provide a full supply of breast milk to their infant.

#### DID YOU KNOW:

Infant fussiness is common! Offering the breast for comfort nursing and keeping baby close (using a carrier) can help soothe a fussy baby.



## 7. Breast milk stored in the freezer may or may not be safe to use if the power goes out.

Access to a refrigerator that has running electricity may be limited during a natural disaster. During an emergency situation families can continue to follow CDC's guidelines for [Proper Storage and Preparation of Breast Milk](#). Once the power goes out, keep the freezer door closed; this will help prevent the milk from completely thawing. If possible, before an anticipated power outage, move all breast milk to the back of the freezer (the coldest part) and ensure that the freezer is full or empty spaces are filled with crumpled newspaper to help reduce air flow. A full freezer stays frozen longer than a partially full freezer. Milk is still considered frozen if ice crystals can be seen in the milk. Once milk has thawed it must be used within 24 hours and cannot be refrozen; if after 24 hours the milk is not used, throw it out. When it comes to safe storage of breast milk, remember: when in doubt, throw it out.

## Breast Milk Storage Guidelines:

- [Proper Storage and Preparation of Breast Milk](#)
- [Frequently Asked Questions about Storage and Preparation of Breast Milk](#)

## 8. A parent who has stopped breastfeeding may be able to start again with proper support.

[Relactation](#) is the process by which a parent starts breastfeeding again after having stopped for some time (weeks or months). A parent may wish to relactate as a safe way to feed an infant during a natural disaster or disease outbreak. Breastfeeding is a supply and demand process that requires 1) nipple stimulation and 2) milk extraction. A parent may be able to relactate or re-establish their milk production by frequently stimulating their nipples by pumping, hand expression, and/or nursing directly at the breast. Once milk production has begun again, frequent, and complete removal of the milk helps to develop a milk supply. Relactation depends on many different factors and support and careful monitoring by a lactation consultant or other breastfeeding specialist is important for parents wishing to relactate.



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A photograph of a woman holding a young child in a shelter setting. The woman is looking down at the child, who is wearing a white shirt. The background shows other people and items in a crowded, temporary living space.

# Supporting Optimal Infant and Young Child Feeding in Emergency Shelter Settings

This document provides information for emergency shelter personnel on supporting IYCF in the preparation and response phases that are specific to emergency shelter settings.

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/shelter-support.html>

## Preparing for a natural disaster emergency

- Learn how to ensure [health equity](#) is included in your efforts to keep families safe and well fed in the shelter.
- Make sure your shelter is breastfeeding-friendly and that there is a safe, clean, and private space for parents to breastfeed or express milk. See "[Creating Safe Family-Friendly Spaces in Emergency Shelters](#)."
- Make sure that the shelter has [essential infant and toddler supplies](#) for families.
- Identify a space to store ready-to-feed (RTF) infant formula and powdered infant formula that is temperature controlled (if possible) and a space to [prepare powdered infant formula safely](#), if needed. If the shelter does not have RTF infant formula or bottled water, a safe water source, or the capacity to boil water to prepare powdered infant formula, families with infants should be sheltered in another location with these resources available.
- Plan for safe and clean diapering stations by using [CDC's planning checklist for diapering stations in shelters](#). (Also available in Spanish)
- Plan for how the shelter will accommodate children with special healthcare needs who are technology dependent and require electricity for their feeds.
- Locate lactation support resources in the community, such as La Leche League, WIC, Lactation Consultants, breastfeeding counselors, breastfeeding peer counselors, and support hotlines. Maintain an up-to-date contact and resources list for your community so that lactation support can be accessed easily and quickly from the shelter.
- Understand and respect differences between cultures. Cultural practices may influence daily routines while in the shelter such as preparing foods, eating, sleeping, and other activities important to families.
- Have breast milk storage guidelines available in your shelter for families who arrive with expressed breast milk in a packed cooler. Transfer the stored and labeled breast milk from the cooler to a refrigerator upon arrival. See breast milk storage guidelines on CDC's website at [https://www.cdc.gov/breastfeeding/recommendations/handling\\_breastmilk.htm](https://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm).
- Have [signs](#) printed and ready to be posted in the shelter that direct families to areas where they can safely feed their children, clean infant feeding supplies, wash their hands, and take care of diapering needs.



## During a natural disaster emergency

- Make pregnant and lactating women a priority group for access to food and water, safe shelter, healthcare, lactation support, and psychosocial support.
- Keep families together in the shelter and located in an area where they feel safe.
- Conduct a [Rapid Needs assessment](#) for IYCF-E with all families that includes information about how they are feeding their infants and children. Ask families what kind of feeding support or feeding related items they may need.
- Never routinely distribute infant formula to all families with infants in the event of a natural disaster. Distributing infant formula to all breastfeeding families can send an incorrect message to families that their breast milk is not enough or not safe during an emergency. Conducting a Rapid Needs Assessment will help identify which families need infant formula. Families feeding infant formula should use ready-to-feed (RTF) infant formula when possible.
- Keep infant formula and related supplies out of view of people staying in the shelter to avoid unintentional promotion or marketing of these products.
- Provide education to families about infant formula feeding, [infant formula preparation](#) (if RTF infant formula is not available), and [proper cleaning of infant feeding items](#).
- Families feeding infant formula should receive infant formula and the supplies needed to safely prepare it and clean infant feeding items, if appropriate, for as long as needed.
- For eligible families, encourage and facilitate enrollment in a long-term program such as the [Special Supplemental Nutrition Program for Women, Infants, and Children \(WIC\)](#).
- As the natural disaster situation continues, conduct additional feeding assessments as needed to ensure families receive continued support to feed their infants and young children. Remind families that they can ask staff for supplies, information, and support that they may need.
- [Do not call for, accept, or distribute donations of powdered infant formula or toddler milks.](#) Emergency supplies of infant formula should only be acquired by official relief organizations.
- If lactation support is not readily available, identify other breastfeeding families within the shelter that may be willing to serve as peer-support to a family in need.
- Encourage and support lactating women to continue to breastfeed throughout the emergency or displacement. Remind families that breastfeeding is the safest method of feeding and will help protect their baby from illness and infection. Breastfeeding can also provide parents and babies comfort and reduce stress. Explain that breastfeeding doesn't require electricity or water, which may be lacking or unsafe during the emergency.
- Encourage families to breastfeed whenever and wherever they want to in the shelter (aside from a bathroom). If others in the shelter are not comfortable with breastfeeding in public spaces relocate them to another part of the shelter, away from families.
- Show families the areas of the shelter where they can:
  - Breastfeed or express milk in private (not a bathroom), if desired
  - Wash their hands, prepare foods, and clean infant feeding items that is separate from a bathroom
  - Safely change infants and dispose of infant diapers that is separate from the infant feeding area
  - Access safe drinking water





- Provide disposable cups for families to use with their infants and children, as well as [cup feeding instructions](#). Bottles, nipples, and sippy cups are difficult to keep clean when safe water is limited or unavailable.
- If local and state provided infant feeding supplies become depleted, the state can submit a Resource Request Form to FEMA to request [infant and toddler kits](#).
- Monitor for mental health concerns among families seeking shelter. Emergency situations can cause significant stress on families and may impact the caregiver-infant feeding relationship. Provide on-site services if possible or connect the family to follow-up care through referrals. Provide information about [caring for children in disasters](#).
- Substance Abuse and Mental Health Services Administration's (SAMHSA) Disaster Technical Assistance Center (DTAC) helps states, U.S. territories, tribes, and local entities deliver an effective mental health and substance use (behavioral health) response to disasters. [Learn more about SAMHSA DTAC](#).
- Follow all state and local guidelines for safety in a public disaster shelter setting including, but not limited to, social distancing, sanitation, and prevention activities such as face mask coverings, hand hygiene, and disinfection guidelines and follow shelter protocols when an individual presents with symptoms of illness.



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## Creating Safe Family-Friendly Spaces in Emergency Shelters

For states, communities, programs, and emergency responders to learn how to create a family-friendly space within an emergency shelter that is tailored to the needs of families with infants and young children.

Accessible link: [www.cdc.gov/nutrition/emergencies-infant-feeding/safe-spaces.html](https://www.cdc.gov/nutrition/emergencies-infant-feeding/safe-spaces.html)

Families often experience stress and uncertainty when displaced from their homes during an emergency. Providing family-friendly spaces within shelters can help reduce stress by providing a private, safe, and dedicated space for families to breastfeed, receive skilled infant feeding and nutrition support, and enjoy quiet time with their baby. There are many ways to create a safe, private, dedicated space for families. Depending on the facility or shelter, here are some ideas:



- Dedicate an unused office, classroom, or closet for this space. If a separate room is not available, a corner space with a partition or divider could also provide privacy.
- Set up portable areas such as tents.
- Set up screens or dividing walls. Hang some curtains, sheets, or tarps. Make use of classroom chalkboards or dry erase boards on wheels, if available.
- Provide diapers and wipes, as well as supplies to clean infant feeding items: a washbasin, soap, a

scrub brush, a mesh bag (to hang items to dry), and [instructions for proper cleaning steps](#). Chlorine bleach may also be needed if hot water or a heat source for sanitizing is not available to disinfect cleaning supplies. Each family will need their own set of supplies.

- If the space is large enough, set it up so that multiple families can use it comfortably.
- Families should not be forced to breastfeed their child in this space. Mothers can breastfeed anywhere; however, some mothers may feel more comfortable breastfeeding in a private area. A quiet, private area can also help settle an overstimulated baby.

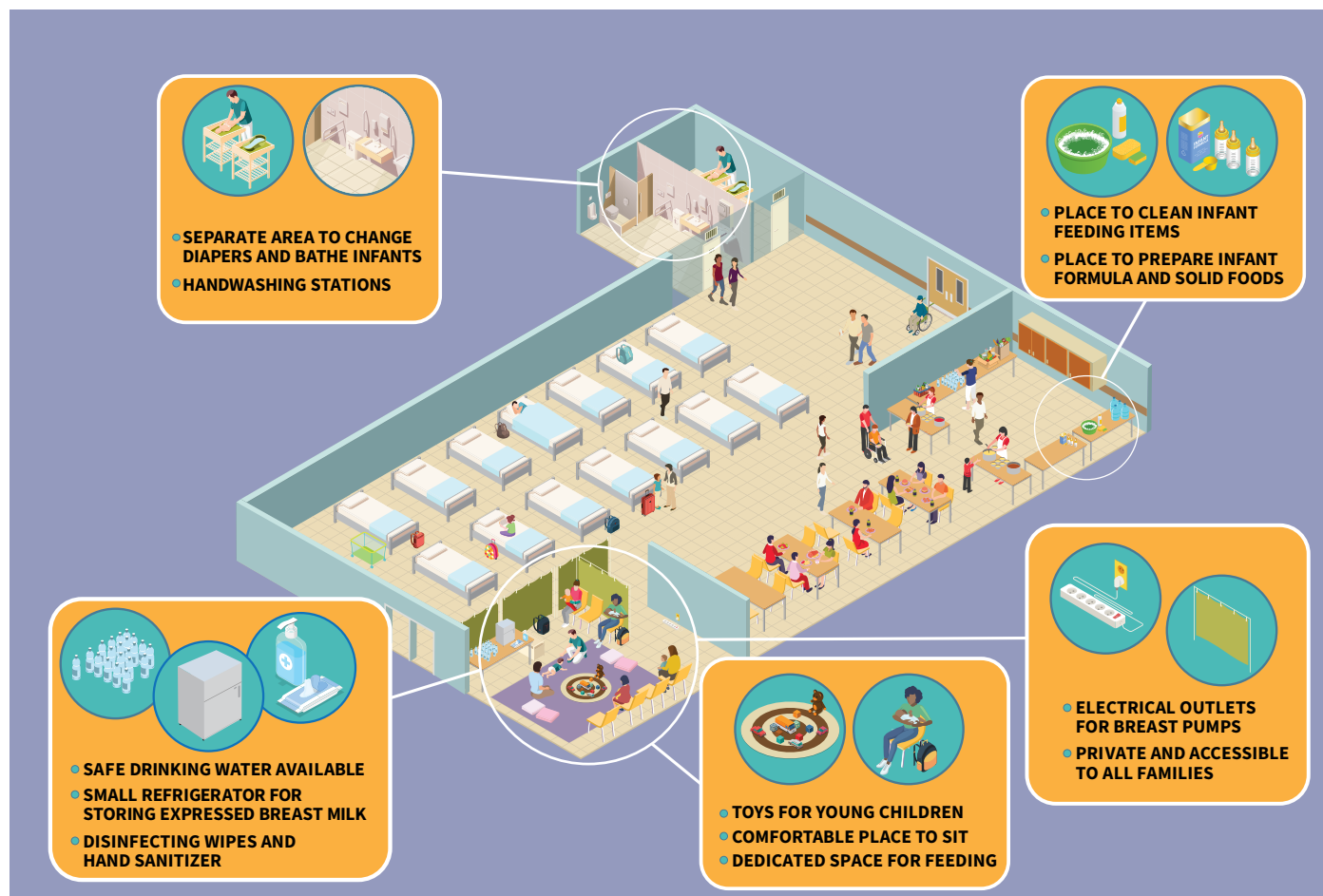
### IMPORTANT:

To prevent fecal-oral (stool to mouth) transmission of diseases, a bathroom should NOT be used as a designated private space for feeding infants, preparing feeds, or cleaning infant feeding items.



## It is important that a family-friendly space:

- is private.
- is cleaned and disinfected frequently (at least every 4-6 hours for infection prevention and control).
- is easily accessible to all families, including those with disabilities or special health care needs.
- has a comfortable place to sit, such as a chair or cushions.
- has adequate lighting.
- has safe drinking water available within the family-friendly space; this is especially important for a lactating woman.
- has a small refrigerator that is dedicated to storing expressed breast milk, if possible.
- has an outlet for pumping breast milk (note: pumps should only be used if pump equipment can be properly cleaned and milk can be safely stored).
- contains toys appropriate for young children that can easily be wiped down.
- has appropriate and well-marked signage in both English and Spanish (or other languages used in the community) so that families can find the space.
- has easy access to safe water and areas for cleaning, food preparation, handwashing, and bathing.
- has a dedicated space for feeding that is separate from the areas to change diapers, clean infant feeding items, and prepare infant formula and foods for young children.



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# Rapid Needs Assessment Intake for Infant and Young Child Feeding in Emergencies



## FOR EMERGENCY RESPONDERS AND SHELTER PERSONNEL:

Use this rapid needs assessment for all families with children up to two years of age to assess feeding support and resources needed. Use a separate assessment for each child within a family.

This assessment can help relief workers to identify:

- how families are feeding their child(ren)
- the foods and infant feeding supplies needed
- families that need lactation support
- families that require private spaces to feed their children
- families that require disposable feeding items or supplies to clean infant feeding items

### 1. Family information:

What is your name?

What is the child's name? (use a separate rapid needs assessment for each child)

Are you the child's parent, caregiver, or guardian?

Yes No

Is the child separated from parent(s)?

Yes No

How old is the child in weeks or months?

### 2. Was the child born prematurely, with a low birth weight, or with any illnesses?

Yes No

If yes, please explain.

### 3. What is the child being fed? (check all that apply)

breast milk

infant formula

cow's milk

milk alternative (e.g., soy milk)

solid foods (also called complementary foods)

other

### 4. How is the child being fed? (check all that apply)

at the breast

with a bottle

with a cup

with utensils

with a syringe or supplemental nursing system

other

### 5. For families feeding breast milk:

Is the child separated from the breastfeeding mother?

Yes No

Does the child feed at the breast?

Yes No



Do you use a breast pump?

Yes No

If yes:

Do you exclusively pump your milk?

Yes No

What kind of a pump do you use?

Manual Electric

Did you bring your pump with you?

Yes No

Do you know how to express your milk by hand?

Yes No

Do you need help with breastfeeding or expressing milk?

Yes No

**6. For families feeding infant formula:**

How much infant formula is the child eating each day (24 hours)

Does the child need, or has the child's doctor prescribed a special kind of infant formula?

Yes No

If yes, what kind and why?

**7. For families feeding solid foods, the child eats foods that are mostly:**

Pureed

Mashed

Chopped

Other

Does the child have any food allergies or restrictions?

Yes No

If yes, please list:

**8. Does the child have any feeding problems or special needs related to feeding? (e.g., chokes on certain textures, aspirates, uses special equipment)**

Yes No

If yes, please explain.

**9. Is there anything else you want to tell us about how you feed the child or other concerns you may have (e.g., privacy, safety, feeding supplies)?**

**10. For Emergency Responders Only (Do not ask family)**

**Observe appearance: Does the child look dehydrated, thin, or ill?**

Yes No Not Sure

**Observations:**

**Remind families to ask staff for any supplies, support, or information that they need.**

**IMMEDIATE NEEDS FOR THIS CHILD/FAMILY**  
(To Be Completed By The Emergency Responder)

Lactation support

Donor human milk (if available)

Ready-to-Feed (RTF) infant formula

Infant feeding supplies (e.g., bottles or cups)

Solid foods

Education (note what information is needed, such as hand expression, cup feeding, formula preparation, etc.)

Other

## Responses to the questions in this Rapid Needs Assessment should inform these next steps:

- Reassure breastfeeding women that breastfeeding is the safest way to feed their child during the emergency. Tell these families that they can and should continue to breastfeed and can offer the breast as much as their infant wants.
- Provide families with age-appropriate information about how to continue to safely feed their children during the emergency. Education should be tailored to how they are currently feeding their children and should include guidance for safe cleaning of feeding equipment for all families, including those providing complementary foods. Refer to the guidelines for [Feeding Solid Foods During a Natural Disaster or Emergency](#) in CDC's IYCF-E toolkit for more information.
- If pasteurized donor human milk is available (e.g., from a human milk bank), ensure that breastfed infants who are separated from their breastfeeding mother and/or do not have access to breast milk are able to receive pasteurized donor human milk.
- If families are using a breast pump to express milk to feed their child, encourage them to breastfeed at the breast more and/or hand express their milk for feedings. Refer to CDC's handout on [hand expression](#).
- If families rely on an electric breast pump, make sure they have access to electricity and/or batteries to operate the pump, and a refrigerator to store their milk. These families also need access to safe water and cleaning supplies to [properly clean the pump part kits](#) after every use. If proper cleaning of breast pumps (manual or electric) is not possible, they should not be used. Contact a lactation support provider to help support the family and teach [hand expression](#).
- If families are using bottles and nipples, or other reusable cups to feed their children breast milk or infant formula, AND safe water and cleaning supplies ARE NOT available, provide disposable cups and [instructions on cup feeding](#). If proper cleaning of infant feeding items such as bottles and nipples is not possible, they should not be used. Refer to CDC's handout on [how to cup feed](#).

- If families are using bottles and nipples, or other reusable cups to feed their children breast milk or infant formula, AND safe water and cleaning supplies ARE available to clean these items, provide education on [proper cleaning practices](#). *Note: Disposable feeding items are preferred in congregate shelter settings to minimize risk of contamination that can make babies sick.*
- Tell families how they can get help with infant feeding if they have any concerns or problems.

## Concerns requiring further assessment with a trained health professional and/or lactation support provider: (check all that apply)

Child appears unwell, thin, or dehydrated (get medical help immediately).

Child is normally fed breast milk but is separated from breastfeeding mother.

Child not breastfeeding well (latch, suck, transfer).

Breastfeeding problems (e.g., plugged ducts, breast infection, thrush, engorgement, slow or difficult let-down, oversupply, use of special equipment like a supplemental nursing system or G-tube).

Parent/caregiver think child is not eating enough.

Mother thinks she is not producing enough breast milk for child.

Breastfeeding family requests infant formula.

Child is over 6 months of age and family has concerns with feeding the child complementary foods.

Mother needs to learn how to hand express milk.

Mother wants to relactate. [Relactation](#) is when you start breastfeeding again after having stopped for some time (weeks or months).

Child has food allergies or dietary restrictions.



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## Concerns Regarding Donations of Infant Formula and Infant Feeding Items During an Emergency

**Information and recommendations for the general public regarding donations of infant formula and infant feeding items before, during, and after a natural disaster.**

### **Should I donate infant formula?**

No. Do not donate infant formula during natural disasters or other emergencies. Emergency supplies of infant formula should only be managed by official relief organizations.

### **How do families get the formula they need to feed their baby?**

Relief organizations can give ready-to-feed (RTF) infant formula to families that need it. If the disaster is so severe that federal assistance is needed, there is a [Disaster Declaration](#). Then the US Department of Agriculture's Food and Nutrition Service (FNS) and/or the Federal Emergency Management Agency (FEMA) may provide infant formula to support people in shelters when requested by the state/territory/tribe.



#### DID YOU KNOW?

Ready-to-feed (RTF) infant formula is a sterile liquid infant formula that is ready to feed without adding water. [Powdered infant formula needs to be mixed with safe water](#). During an emergency, access to [safe water](#) and boiling facilities may not be available or may be limited, unpredictable, and inconsistent. Mixing powdered infant formula with unsafe water can make babies very sick and, in some cases, can lead to death.

### I want to donate infant formula because I heard there is a shortage in stores. Is this okay?

Some stores have seen shortages of infant formula during a disaster due to families overstocking on supplies. Even so, do not buy infant formula to donate. It's important for relief organizations to manage the process of getting infant formula so that they can make sure it is stored at a safe temperature and given only to families that need it. They will also make sure that families get the information and supplies they need to feed their babies safely.

### How can infant formula donations be harmful?

Donations of infant formula during an emergency might be harmful in several ways:

- Infant formula is sometimes distributed without first assessing who needs it and without providing feeding supplies or education on safe preparation and storage.
- Handing out infant formula to all families with infants can send an inaccurate message to breastfeeding women that their milk is not enough.
- When breastfeeding women start using infant formula during an emergency, they might breastfeed less, which can lead to a lower milk supply.
- When families recover from the crisis, they may not be able to afford continued use of infant formula.
- Families might dilute or water down infant formula (by adding too much liquid) to make it last longer, which is dangerous and reduces the amount of nutrients the baby will receive at each feeding. The child might become malnourished.

### Can I donate infant and toddler feeding items, like bottles, pacifiers, and sippy cups?

Maybe. [Cleaning reusable infant and toddler feeding items](#) during a natural disaster requires [safe water](#) and soap after each use. When these supplies are not available, families should use disposable [cups to feed infants and children](#) expressed breast milk, formula, or other liquids. If you wish to donate infant and toddler feeding items, check with local relief organizations for a listing of supplies they need.

### Should I donate breast pumps?

No. Do not donate breast pumps. Without power, mothers cannot use an electric breast pump or safely refrigerate their expressed milk. Even for battery-operated or manual pumps, keeping pump parts clean is an additional challenge. Pump kit parts that are not thoroughly cleaned after each use can grow bacteria that can contaminate expressed milk and make a baby sick. Families that need to pump milk can be safely supported and taught to [hand express](#), so that this equipment is not needed.



## Can I donate my breast milk?

Yes. Milk banks are always in need of more donor human milk. [Human Milk Banking Association of North America \(HMBANA\)](#) member banks are nonprofit operations that provide pasteurized donor human milk to fragile infants in need. You can [review the list of milk banks and their locations](#), and then call the one that is geographically closest to you (the milk bank does not need to be in your same state). Milk bank staff will guide you through the screening and donation process. Milk banks cover the cost of screening donors and shipping, and many have drop off sites. It is important to know that donating milk is a commitment and can take time because it requires a screening process and often multiple donations to provide a minimum amount of milk. However, you do not need to wait for an emergency to donate your breast milk. Consider becoming a donor at any time to help milk banks be prepared for future emergencies.

## I want to help with recovery efforts, what can I donate?

Connect with official emergency relief organizations working in the affected area to determine what is needed and how to help before, during, and after a disaster. Do not start collecting and shipping items unless you know a specific organization will accept your items. Relief organizations may prefer financial donations because they provide the most flexibility in obtaining the most-needed resources. Perishable items require refrigeration, which may not be available to families if there is no electricity. Unneeded donations often go to waste and can make post-disaster clean-up efforts even more difficult.



### LEARN MORE:

For more information on infant feeding during emergencies, visit our [webpage](#) on infant feeding during disasters and our [feature](#) for additional information and resources.



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## Feeding Solid Foods During a Natural Disaster or Emergency

For states, communities, programs, and emergency responders to learn about the precautions needed to feed children safely during emergencies.

When infants are about 6 months old, and developmentally ready, they can be introduced to foods and drinks other than breast milk and infant formula. These foods and drinks are called solid, or complementary foods. Good nutrition is important for growth and development.

The [recommendations for feeding infants and young children](#) do not change during an emergency, but providing healthy foods and preparing foods safely can be more difficult. Families may need support to learn how to feed their children safely during emergencies.



**Here are some ways to keep children healthy and safe while feeding solid foods during an emergency:**

### **Before feeding young children:**

- Check expiration dates and look for signs of damage, rust, or dents before providing any non-perishable foods.
- If using non-disposable items, check bottles, nipples, feeding tools, infant formula, or other food containers to see if they have encountered flood water or extreme temperatures. Throw away any items that have been affected.
- Check with families about dietary needs, restrictions, and allergies. Make sure these families receive food they can safely eat during food distribution.



### **WHAT TO FEED YOUNG CHILDREN:**

**Nutrient-dense foods from each food group can be offered. Some examples include:**

- Fruits: bananas, oranges, melons, or avocados
- Vegetables: cooked carrots, peas, or beets
- Grains: whole grain breads, cereals, or pastas
- Proteins: soft, small pieces of beef, lamb, chicken, fish, or turkey
- Dairy: pasteurized yogurts or cheeses

**Avoid foods with added sugars and foods higher in sodium.**

### **DID YOU KNOW?**

The American Academy of Pediatrics and the Dietary Guidelines for Americans 2020-2025 recommend that children be introduced to foods other than breast milk or infant formula when they are about 6 months old.

To learn more about infant and toddler feeding, visit CDC's [Infant and Toddler Nutrition website](#).

### **How to feed young children:**

- Make sure there is a place for families to wash their hands with soap and safe water before feeding children. If soap and safe water are not available, provide [an alcohol-based hand sanitizer](#) that contains at least 60% alcohol. Supervise young children when they use hand sanitizer to prevent swallowing the product.
- Follow all food service guidelines for how to prepare and serve food within a disaster shelter. Contact your local health department with questions.
- Make available disposable feeding items like cups, dishes, and utensils to feed children. If families have safe water and cleaning supplies to clean reusable feeding items, ensure that families [clean infant feeding items](#) well after each use.
- Families should prepare table foods that are the right texture for the child's age and development. Foods may need to be mashed or chopped to feed young children safely.
- To help [prevent choking](#) in children who are just starting to eat solid foods, help families to prepare foods that can be easily dissolved with saliva and do not require chewing. Encourage them to feed their child slowly and in small portions and always watch young children while they are eating.



## After feeding young children, make sure families:

- Use safe water and soap to [clean bottles, nipples, cups, and other feeding supplies](#) (if using non-disposable items).
- Place washed infant feeding items in a mesh bag to hang dry.
- Throw away any leftover food that cannot be stored safely.



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## LEARN MORE:

For more information on infant feeding, solid food feeding, and safe handling of infant feeding items, visit these webpages:

- [CDC Infant and Toddler Nutrition website](#)
- [Disaster Planning: Infant and Child Feeding](#)
- [How to Clean Infant Feeding Items During Emergencies](#)
- [Foods and Drinks to Encourage](#)
- [Foods and Drinks to Limit](#)
- [Proper Storage and Preparation of Breast Milk](#)
- [How to Prepare and Store Powdered Infant Formula During an Emergency](#)



# Hand Expression

Accessible link: [www.cdc.gov/nutrition/emergencies-infant-feeding/hand-expression.html](https://www.cdc.gov/nutrition/emergencies-infant-feeding/hand-expression.html)

**Expressing breast milk by hand is an important skill for lactating women to learn, especially in case of an emergency. Hand expression can be helpful in emergency situations when you may not have access to a breast pump, electricity for a breast pump, or if you are away from your baby unexpectedly.**

## Expressing milk by hand:

- May be more comfortable for some parents who experience pain when using a breast pump.
- Does not require equipment, water, or electricity.
- Can relieve engorgement (by releasing some milk to soften your breasts) and help your baby to latch on more easily.
- Encourages milk production early in lactation.
- Is a safe and effective way to express milk during emergency or natural disaster situations.

**A lactation support provider can help you to learn how to hand express. Hand expression gets easier with practice and you can experiment to find what works best for you. Practicing in the shower or other private space can be a good way to learn.**

## Before you get started:

- Wash your hands well with soap and warm water, or use hand sanitizer with at least 60% alcohol.
- Use a clean, disposable container with a wide mouth to collect the milk.
- Find a comfortable position and lean forward slightly to let gravity help.
- Massage your breast to help stimulate the milk to release.



## Steps for expressing milk by hand:



1. Position your thumb above the nipple and your fingers below the nipple about 1-2 inches behind your nipple. Your thumb and fingers will make the letter "C" shape.



2. Press your fingers and thumb back toward your chest.



3. Gently compress your fingers and thumb together.



4. Release and then repeat in a rhythmic pattern: **Press, Compress, Release**. Continue until the milk stops and then switch to the other breast.

## Additional tips to help your milk flow:

- Use a warm compress or heat on your breast before expressing.
- Change position of the fingers around the nipple to express milk from different ducts.
- Think about your baby or smell a piece of your baby's clothing to help the milk to flow.
- Tension or anxiety can prevent your milk from flowing well. Practice relaxation techniques by taking deep breaths, stretching, or asking a family member or partner for a gentle shoulder or back massage.
- Do not squeeze hard or pull on the nipple. Hand expression should not hurt.



### Ask for help:

If you are in an emergency and you need help expressing your milk, ask a relief worker to connect you with a lactation support provider or for a lactation support hotline you can call.

See also guidance on [Cup Feeding Infants During Emergencies](#).



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# Cup Feeding Infants During Emergencies

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/cup-feeding.html>

**Breastfeeding is the safest way to feed an infant during a natural disaster. Using a bottle and nipple to feed formula or breast milk during an emergency can be dangerous if safe water is not available to clean the items properly. Cup feeding is an alternative way to feed infants when they are unable to feed directly at the breast and when infant feeding items cannot be cleaned properly. Cup feeding can be used with babies of all ages and is also safe for premature and many ill babies.**

These cup feeding instructions can be used for infants receiving breast milk and/or infant formula. For formula fed infants, ready-to-feed infant formula is the safest option.

## Instructions and tips for cup feeding:

### Supplies:



A small disposable plastic or paper cup such as a medicine cup or a bathroom cup.



A cloth or disposable bib to catch any milk that spills.

### Before cup feeding:



Always wash your hands before cup feeding your child. If safe water is not available, use alcohol-based hand sanitizer containing at least 60% alcohol.



Make sure your baby is awake and ready to feed.



Fill the cup up to 2/3 full of [expressed breast milk](#).



If needed, wrap your baby to prevent baby's hands from bumping the cup.

## Step-by-step cup feeding:

1. Hold your baby close to your body in an upright position.
2. Use your hand or arm to support your baby's head, neck, and body.
3. Hold the rim of the cup to your baby's lower lip.
4. Tip the cup slightly so that the milk just touches your baby's lips.
5. Your baby will use his or her tongue to lap or sip the milk from the rim of the cup. Do NOT pour the milk into your baby's mouth.
6. Go slowly and allow your baby to rest between swallows, but keep the cup touching your baby's lip.
7. Keep the cup tipped enough so that the milk stays at the rim of the cup.
8. Burp your baby as needed during the feed.
9. When your baby has had enough, he or she will refuse to take more. Signs that your baby may be full include:
  - Closes mouth.
  - Turns head away from the cup.
  - Relaxes hands.
  - Uses hand motions or makes sounds.

The amount your baby will take depends on your baby's age. Talk with a health care provider to make sure your baby is getting what he or she needs.



10. Discard disposable cup and any leftover milk after feeding. If only a reusable cup is available and there is safe water for cleaning, [clean the cup thoroughly](#) with soap and hot water after use and store in a dry, protected area.

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Adapted from Baby-Friendly Hospital Initiative training course for maternity staff: participant's manual Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2020. <https://www.who.int/publications/i/item/9789240008915>



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# How to Prepare and Store Powdered Infant Formula During an Emergency



Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/powdered-infant-formula.html>

For families who need infant formula during an emergency, ready-to-feed (RTF) infant formula is the safest option. During a water-related emergency, such as a natural disaster or drinking water outage, tap water may not be safe to mix with powdered infant formula. RTF infant formula is a sterile liquid infant formula that is ready to feed without adding water. There may be times when powdered infant formula is the only option during an emergency. If a family must use powdered infant formula when tap water is unsafe to drink, follow these steps to prepare and store it safely and correctly.



**Step 1:** Clean your preparation surface. Wash your hands with soap and water or use alcohol-based hand sanitizer with at least 60% alcohol. Use a clean bottle or other food-grade safe container and a lid or cap to prepare the infant formula. Make sure the formula is not expired.



**Step 2:** Use bottled water to prepare powdered formula until local authorities say the tap water is safe to drink. If bottled water is not available, [learn how to make water safe by boiling or disinfecting](#).



**Step 3:** Use the exact amount of water and formula listed on the formula container instructions. If you do not have a measuring cup to measure the water, use a disposable water bottle or other food-grade safe container that lists the total volume so you can estimate. Measure the water first and then add the infant formula powder with the scoop provided.



**Step 4:** With the lid or cap on, shake infant formula in the bottle or other food-grade safe container to mix. Do not stir. You do not need to warm infant formula before feeding.



**Step 5:** After feeding, be sure to thoroughly clean the bottle and nipple with soap and safe water. [Learn about cleaning and sanitizing infant feeding items in emergencies](#).

## IMPORTANT:

Powdered infant formula is not sterile. If your baby is less than 2 months old, was born prematurely, or has a weakened immune system it is especially important to use ready-to-feed infant formula in any emergency. Liquid infant formula is made to be sterile (without germs) and is the safest option for infants not receiving breast milk.

## Use Quickly or Store Safely

- Use prepared infant formula within 1 hour from start of feeding and within 2 hours of preparation.
- If you are not going to use the prepared formula within 2 hours, immediately store it in the refrigerator and use within 24 hours.
- During power outages, you may not have access to a working refrigerator. In this case prepare a fresh formula feed for every feeding.
- Throw out any formula that's left over after feeding your baby. Do not refrigerate it to save for later. The combination of infant formula and your baby's saliva can cause bacteria to grow.

## Feeding Tips

- If you feed your baby with both breast milk and powdered formula, breastfeed or feed your baby breast milk first, then feed the formula.
- Do not use a bottle to feed your baby anything besides infant formula or breast milk.
- When mixing infant formula, make only the amount your baby will eat in the bottle. This avoids wasting your supply.
- If you are using disposable cups, use a new cup for each feeding.

## Remember

- Always mix formula in a food-grade safe bottle or container. Never use a container that has ever held any toxic substance or chemical.
- Always use the exact amount of water and formula listed on the instructions of the infant formula container. Adding too much or too little formula can make your baby sick.
- **Do not make or feed your baby homemade infant formula.** Feeding homemade infant formula to your baby can lead to serious health problems for your baby.
- If formula cans were exposed to unsafe water, have dents, rust spots, puffy ends or a broken seal, they should be thrown away immediately.
- Keep powdered formula lids and scoops clean and dry, and close containers of formula as soon as possible. Store the scoop inside the container.
- Watch and listen for updates from local authorities regarding the safety of your water source.



### DID YOU KNOW?

When safe water is not available, bottles and bottle nipples are dangerous to use in emergencies because they are difficult to clean. If you're using a disposable water bottle or other food-grade safe container to prepare the formula, pour the formula into a disposable cup to feed your baby. After feeding, throw away the cup. [Learn more about cup feeding.](#)

### DID YOU KNOW?



If you decide to warm the formula, and have access to clean water, place the closed bottle into a bowl of warm water for a few minutes. Avoid getting water into the bottle or nipple. This could contaminate the prepared formula. Test

the temperature before feeding it to your baby by putting a few drops of formula on your wrist. It should feel warm, not hot.

**Never warm formula in a microwave. Microwaving creates hot spots, which can burn your baby's mouth.**



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# How to Clean Infant Feeding Items During Emergencies

GermS can grow in and on baby bottles, sippy or trainer cups, and other food containers. It can be hard to clean infant and toddler feeding items during an event like a hurricane, wildfire, flood, evacuation, or power outage, especially if you do not have access to clean, safe water.

## Clean All Feeding Items After Every Use

- Baby bottles, nipples, sippy cups, and all parts.
- Cups, bowls, spoons, and forks.
- Tools and containers for preparing and storing baby food, infant formula, and breast milk.



Throw away bottle nipples, pacifiers, and other items that are hard to clean if they have been touched by floodwater. Tiny cuts or breaks in these items can let in germs that can't be removed by cleaning.



**MAKE A CLEANING KIT TO SAFELY CLEAN AND STORE EVERYTHING YOU NEED TO FEED YOUR BABY:**

### Your kit can include:

- Wash basin\* or storage bin with lid
- Scrub brush\*
- Dish soap
- Paper Towels
- Mesh bag

**\*Don't use the wash basin or scrub brush to clean anything else. Use them only for your feeding items.**

## Always Clean with Safe Water

- When cleaning infant feeding items, always use safe water that has not been used for anything else.
- In most emergencies, bottled water is safest for cleaning.
- If bottled water is not available, water contaminated with germs can be made safe for cleaning by boiling, adding bleach, or filtering.
- Do not use water contaminated with harmful chemicals, toxins, or radioactive material. It cannot be made safe by boiling or adding bleach.
- Always follow instructions from local public health officials for specific advice about water safety.
- When safe water and soap are not available for cleaning feeding items, use disposable cups and supplies for feeding your infant.

**SCAN THIS QR CODE TO LEARN MORE ABOUT HOW TO MAKE WATER SAFE FOR DRINKING AND OTHER USES BY BOILING, DISINFECTING, OR FILTERING:**





## Follow These Steps to Protect Your Baby



1. Wash your hands with soap and water or use hand sanitizer with at least 60% alcohol.



2. Discard leftover liquids or foods from bottles, cups, and containers.



3. Scrub and wash items.

- Take apart all items and put them into your wash basin. NEVER put items directly in a sink. Germs in the sink can make your baby sick.



- Fill wash basin with safe water and add dish soap.



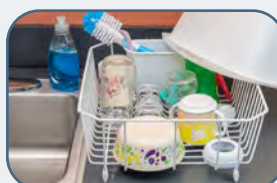
- Use a scrub brush to clean all surfaces.
- Pour or squeeze soapy water through bottle nipples, straws, valves, and sippy cup spouts.



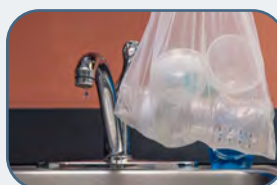
4. Rinse with safe water.



5. Air dry on an unused paper towel or clean drying rack, or hang to dry in a clean mesh bag.



- If air drying is not an option, dry with a clean paper towel. Do NOT dry with a dish towel. Germs on dish towels can make your baby sick.



- If you use a drying rack, put all items upside down to drain out the water.



6. Clean the wash basin, scrub brush, and drying rack with soap and safe water. Rinse and air dry.



7. Store completely dry items in a clean place, such as inside your wash basin or storage bin.



**Do not clean infant feeding items near diapering areas!**

## Sanitize Items as Needed

If your baby is less than 2 months old or if your baby is sick, you will need to do one more step after washing and rinsing your feeding items. Sanitize all items at least once every day for extra protection.

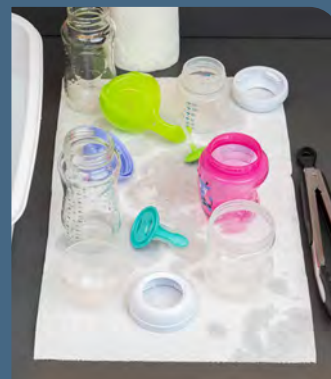
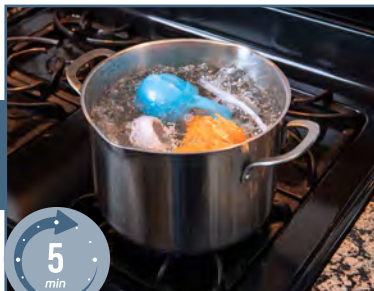
### Use one of these methods to sanitize your feeding items:

Put items in a pot and fill with safe water

Boil for 5 minutes

Remove items carefully

Air dry  
sanitized items



OR



Put items in a wash  
basin and fill with  
safe water

Add 1 teaspoon of  
bleach (per 1/2 gallon  
or 8 cups of water) and  
soak for 2 minutes

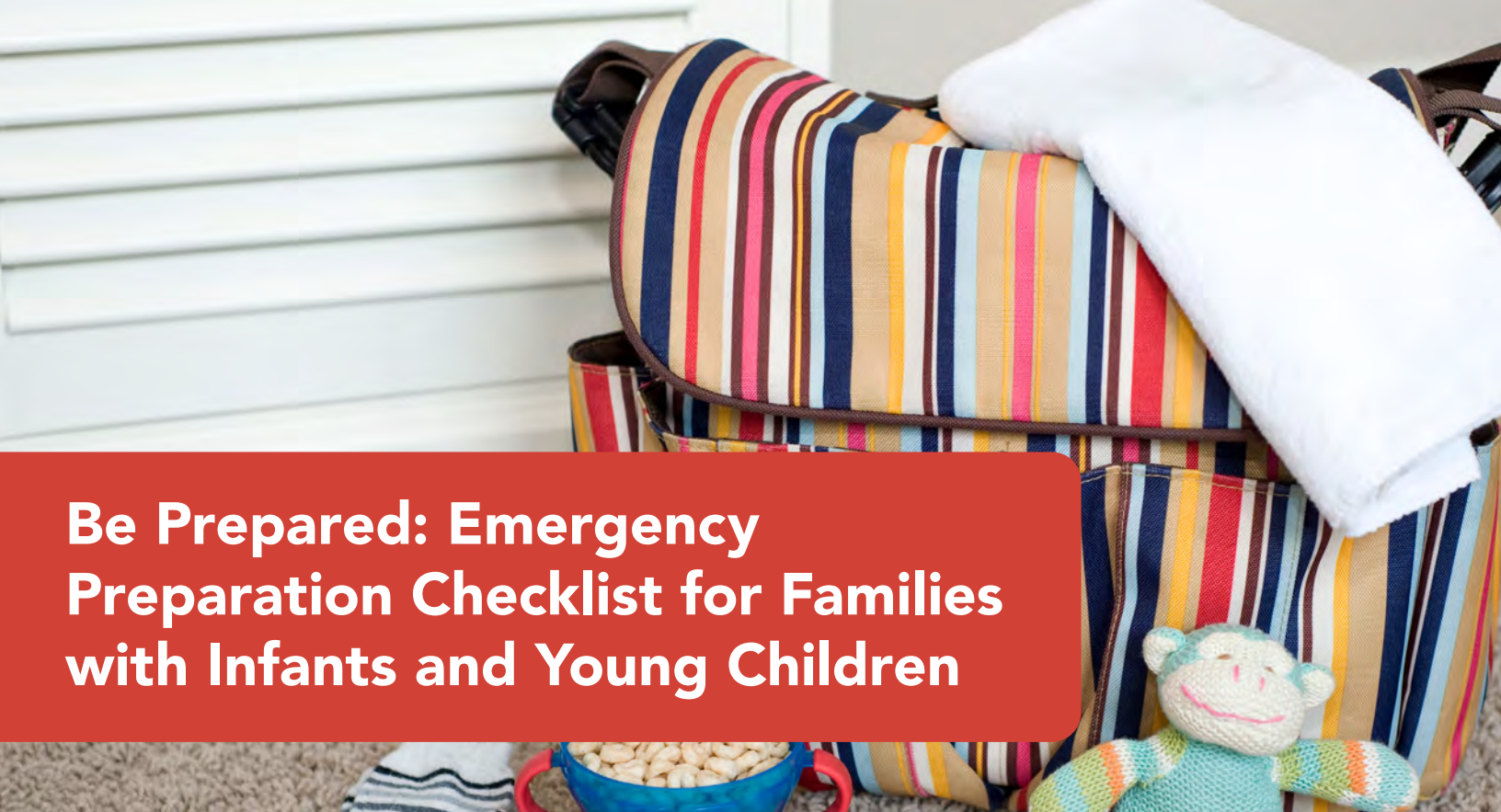
Remove items carefully

Do NOT rinse  
sanitized items

**Note:** Any bleach that remains after sanitizing will break down quickly as it dries and will not hurt your baby.



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# Be Prepared: Emergency Preparation Checklist for Families with Infants and Young Children

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/checklist.html>

An emergency kit is a collection of items you may need in an emergency. There are things every family needs during an emergency. See [CDC's Family Checklist](#) to help you gather all the materials you need in case of an emergency. Use this preparation checklist in addition to CDC's Family Checklist to make sure you have all the infant and young child feeding supplies you will need.

## For families feeding their child any breast milk:

- ☐ 1-2 boxes of disposable nursing pads (reusable will require laundry daily)

## For families that rely on a breast pump:

- ☐ Breast milk storage bags or containers\*
- ☐ Small cooler with ice packs for breast milk storage
- ☐ Breast pump and pump kit parts, power cords, extra batteries\*
- ☐ Manual hand pump\* (in case of a power outage)

## For families feeding their child any formula:

- ☐ Ready-to-feed infant formula in single serving cans or bottles. Babies grow quickly so revisit your emergency kit monthly to be sure you have enough formula to meet your baby's current needs for several days. Replace formula that is expiring soon with newer bottles.
- ☐ Powdered infant formula and preparation materials.\*
  - ☐ Formula cans/containers
  - ☐ Liquid measuring cup
  - ☐ Food-grade container with lid for mixing
  - ☐ Bottled water for mixing
  - ☐ Bottles and nipples

### NOTE:

Powdered infant formula is not sterile and should only be used during emergencies when ready-to-feed infant formula is not available. It will also be important to have cleaning supplies to wash infant feeding items.







## Common Questions about Infant Feeding during Emergencies

During a natural disaster, breastfeeding is the safest way to feed an infant. This fact sheet for families answers common questions about feeding infants and young children during an emergency.

### **This emergency has been stressful, will the stress make my milk supply dry up?**

You can continue to breastfeed and express breast milk even if you are feeling physical and emotional stress. Feeling stress can impact your release, or letdown of milk, however your body will still produce

milk, even if you are stressed. Breastfeeding releases certain hormones that can help you relax and reduce your stress, which can allow your milk to letdown. If you're in a shelter setting, ask if there is an area you can breastfeed or express that is quiet, private, and comfortable. Being in a comfortable area can help you relax. Stress reduction techniques such as deep breathing, stretching, or meditating can also help.





## **I use powdered infant formula at home, why is powdered infant formula not recommended during an emergency?**

Using powdered formula requires [safe water](#) for mixing, as well as bottles and nipples for feeding that require careful cleaning after every use. If safe water is unavailable or limited during the emergency, you may not be able to safely mix the powdered formula or clean your feeding items after use. If you're feeding your child formula, ready-to-feed (RTF) infant formula is the safest option to use during an emergency because it does not need to be mixed with water and it comes in individual single-use containers. When powdered infant formula is the only option, extra care must be taken so that it does not become contaminated (unsafe). Extra care includes mixing infant formula with safe water, using a clean measuring scoop, storing the formula can in a cool, dry place with the lid tightly closed, and carefully cleaning all infant feeding items such as bottles, caps, and nipples. [Feeding your baby with disposable cups](#) that can be used once and then thrown away can protect your baby from germs that can grow in bottles and nipples. Learn more about how to [safely prepare and store powdered infant formula during emergencies](#).

## **I brought my baby's bottles, nipples, and feeding supplies, why is it recommended I use disposable cups instead?**

[Cleaning reusable infant and toddler feeding items](#) during a natural disaster requires safe water and soap after each use. Safe water may be unavailable, or limited, during an emergency. Also, bottles, nipples, sippy cups, and pacifiers can easily grow germs when they are not cleaned well which can make your baby sick. A heat source may not be available to safely sanitize the bottles either, which can increase the possibility of your baby becoming sick. If bottle nipples, pacifiers, or other hard to clean items come in contact with floodwater, they need to be thrown out. Instead use disposable cups and other feeding items that can be thrown away after one use and don't need to be cleaned. Ask for help from a lactation support provider if you need to learn how to feed your baby with a cup. [Learn more about cup feeding](#).





## I'm pumping my breast milk and I need help, where can I find support?

If you have access to a phone and the ability to call out, call the National Women's Health and Breastfeeding Helpline Monday through Friday 9am-6pm ET at 1-800-994-9662 to reach a specialist in English or Spanish. You can also contact your doctor or your child's doctor to receive help or to be connected to another lactation support provider as needed.

If you are in a shelter setting, be sure to tell the shelter staff or emergency relief workers that you're breastfeeding and/or expressing breast milk. Ask for a quiet, private, and comfortable place where you can breastfeed or express. If you need supplies to feed your child and/or a refrigerator to store your breast milk, ask shelter staff for help. You can also ask the staff if there is someone trained in lactation that you can speak with or a local lactation support provider that you can call. Peer to peer support can also be very helpful; if a trained lactation support provider is not available, ask staff to help you identify another breastfeeding mother that you may be able to speak with.

## I feel sick, can I still breastfeed?

If you are feeling sick, or have a fever, call your doctor. If you are in a shelter, notify shelter staff or an emergency relief provider. Be sure to continue to wash your hands with soap and safe water or use a hand sanitizer with at least 60% alcohol to help prevent the spread of germs. You can and should continue breastfeeding while sick with certain illnesses such as the flu, COVID-19, or diarrhea or if you have a breast infection such as mastitis. But it's important you get medical attention to diagnose your illness. Be sure to tell the medical provider that you are breastfeeding. Although most medicines are okay to take when breastfeeding, certain medications may not be recommended while breastfeeding.

[Learn more about the safety of common medications while breastfeeding.](#)

Your body will still produce breast milk even if you are sick and it's important to rest and keep up your milk supply. If one is available, talk to a lactation support provider about how to keep up your milk supply if you have to stop breastfeeding for a while. If your baby is sick too, breastfeeding can provide comfort and help keep your baby hydrated.

# Human Milk Storage Guidelines

Storage Locations and Temperatures			
Type of Breast Milk	Countertop 77°F (25°C) or colder (room temperature)	Refrigerator 0 °F (4°C)	Freezer 0°F (-18°C) or Colder
Freshly Expressed or Pumped	Up to <b>4 Hours</b>	Up to <b>4 Days</b>	Within <b>6 months</b> is best  Up to <b>12 months</b> is acceptable
Thawed, Previously Frozen	<b>1-2 Hours</b>	Up to <b>1 Day</b> (24 hours)	<b>Never</b> refreeze human milk after it has been thawed
Leftover from a Feeding (Baby Did Not Finish a Bottle)	Use within <b>2 hours</b> after the baby is finished feeding		

## I had to evacuate (leave) my home and I brought a cooler of breast milk with me. How can I store my milk and how long is it safe to use to feed my baby?

After arriving at your destination, use the milk right away, store it in the refrigerator, or freeze it. If you are in a shelter setting, tell shelter staff or a relief worker that you have a cooler of breast milk with you and ask where you can store it. Ask for supplies to label your milk if you haven't already. Above are CDC's milk storage guidelines to help you determine how long to store your milk. Frozen breast milk that has started to thaw but still contains ice crystals can be refrozen. If your breast milk has completely thawed but still feels cold, put it in the refrigerator and use it within the next day or throw it away. See [CDC's Storage and Preparation of Breast Milk](#) handout for more information.

## I stopped breastfeeding for a while during the emergency, can I start again?

[Relactation](#) is possible. Relactation is when you start breastfeeding again after having stopped for some time (weeks or months). Breastfeeding is a supply and demand process that requires 1) nipple stimulation and 2) the removal of milk from the breast. You may be able to relactate or re-establish your milk production by pumping, hand expressing, and/or nursing directly at the breast often. Breastfeeding whenever your child shows interest and holding your baby skin-to-skin as often as possible can help. Once milk production has started again, continue to nurse or express often to build a milk supply. Relactation depends on many different factors and regular help by a lactation support provider is important. Ask shelter staff or an emergency responder if there is a trained lactation support provider who can help and support you.



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# Special Considerations for Emergencies

For families and emergency responders to learn about unique infant feeding considerations during evacuations, power outages, and emergencies that impact safe water.

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/special-considerations.html>

What would happen if your family had to evacuate your home due to a hurricane, wildfire, or flood? What if there is a power outage? There are different types of emergencies that require special considerations for families with young children. Prepare now and learn what to consider for each emergency below.

Be prepared for an emergency by creating an emergency kit using CDC's [Emergency Kit Checklist for Kids and Families](#).

## Evacuation considerations for families:

If you have infant formula or expressed breast milk stored at home in a refrigerator or freezer, and you are leaving your home to travel to another location, carefully plan how you will transport it.

If your child is starting to eat solid foods, consider how you will transport food that needs to be refrigerated, and pack supplies that you will need to prepare the food.

You can take steps now to get ready, so you can safely transport the items you need to feed your child if an emergency happens.

## Transporting expressed or stored breast milk and related supplies during an emergency:

### Get Ready:

- Plan to continue breastfeeding through emergency seasons (e.g., wildfires, hurricanes).
- If you use a breast pump, learn to [hand express](#) your milk and practice in case you are without a pump during an emergency.

Keep these items on hand to transport breast milk in case you are ordered to evacuate:

- Cooler or insulated cooler bag.
- Ice packs.
- Disposable [cups for feeding](#) if you will not be able to clean bottles and nipples.

### During an emergency:

- You can carry freshly expressed milk in a cooler or an insulated cooler bag with frozen ice packs for up to 24 hours. After arriving at your destination, use the milk right away, store it in the refrigerator, or freeze it.



- If you carry frozen milk in a cooler with frozen gel packs or ice, check your milk when you get to your destination. Upon arrival, if the milk has ice crystals, you can refreeze it.
- Keep in mind that previously frozen milk should be kept cold and used **within 24 hours from the time it thaws completely**. This will depend on the time spent traveling and the temperature of the cooler. If possible, check the milk after a few hours in the cooler to see if it has thawed.
- When you arrive at your destination, let the emergency responders know that you have expressed breast milk with you that needs to be refrigerated and stored safely.
- If you need to continue to express breast milk during or after evacuation, [hand expression](#) or a manual breast pump will allow you to continue to express milk without needing electricity. It is important that you [clean your breast pump kit parts](#) between uses with soap and a clean water source. Ask emergency responders if there is a clean area you can pump, a dedicated area to wash your pump parts, and a place to store your expressed breast milk. Be sure to label your milk for storage.

## Transporting infant formula and related supplies during an emergency:

### Get Ready:

Keep these items on hand to transport infant formula in case you are ordered to evacuate:

- Ready-to-feed (RTF) infant formula in single serving cans or bottles.
- Bottled water.
- Disposable [cups for feeding](#) if you are unable to clean bottles and nipples.

For formula-fed babies, it is safest to use ready-to-feed (RTF) infant formula because it does not need to be mixed with water and it comes in individual single-use containers. Unopened RTF infant formula does not need to be refrigerated. As babies grow, the amount of infant formula they drink in one day will change. Check your RTF infant formula supply in your emergency kit regularly to make sure it is not expired (or expiring soon) and that you have enough



to feed your child for several days. Follow all storage directions and expiration dates on the RTF infant formula packaging.

### During an emergency:

- If safe water is unavailable for cleaning bottles and nipples, you can use disposable cups to feed your child instead of bottles.
- If using RTF infant formula is not possible, it is best to use bottled water to prepare powdered or concentrated formula when your tap water is unsafe. If evacuating, bring bottled water with you to prepare powdered or concentrated infant formula as needed.
- Bring a copy of CDC's [How to Prepare and Store Powdered Infant Formula During an Emergency](#) with you. Learn more about [cup feeding](#) and [how to clean infant feeding supplies during an emergency](#).

## Transporting solid foods and related supplies during an emergency:

### Get Ready:

Keep these items on hand to transport solid foods in case you are ordered to evacuate:

- Non-perishable, store bought baby food (enough for several days).
- A cooler or insulated cooler bag to hold foods that need to be refrigerated (e.g., fruits, vegetables, meats, dairy).
- Disposable plates, bowls, and utensils for feeding and preparing foods.
- Check your baby food supply in your emergency kit regularly to make sure it is not expired (or expiring soon) and that you have enough to feed your child for several days. As babies grow, they may eat more solid foods.

### During an emergency:

After arriving at your destination, ask where you can store and prepare your child's foods, wash hands and feeding supplies, and feed your child.



## Water safety considerations

During an emergency, water may become contaminated with germs, making it unsafe to use for mixing with powdered infant formula or cleaning infant feeding items and breast pump kit parts. Bottles, nipples, sippy cups, and pacifiers can easily grow germs when they are not cleaned well which can make your baby sick.

### Get Ready:

- Have bottled water ready in case you need to use it. When RTF infant formula is unavailable, bottled water can be used to mix with powdered infant formula. In emergency situations bottled water is the safest choice for drinking and all other uses.
- Have disposable cups, plates, bowls, and utensils ready to feed your children safely.

### During an emergency:

- Make sure you're using [safe water](#) (either bottled water or tap water if local authorities say it's safe) for preparing powdered infant formula.
  - CDC has information on [how to prepare and store powdered infant formula safely during an emergency](#).
- Use safe water to clean all infant feeding items.
  - CDC has information on [how to clean infant feeding items safely during an emergency](#). If safe water is not available for cleaning, use disposable infant feeding items including cups for [cup feeding](#).
- If bottled water is not available, boil water for 1 minute (3 minutes at higher altitudes, above 6,500 feet) and let it cool before mixing with powdered formula. If you do not have access to bottled or boiled water, [use disinfected water](#). Boiled or disinfected water is safe to mix with powdered infant formula. It is also safe to use for cleaning infant feeding items like bottles and nipples and breast pump kit parts. Learn more with CDC's handout on [making water safe during an emergency](#). (Also available in Spanish).
  - Store boiled or disinfected water in [clean sanitized containers](#) with tight covers. This water can then be used to mix powdered infant formula and clean infant feeding items during the emergency.



- When you do not have safe water or cleaning supplies to clean bottles and nipples, feed your baby with disposable cups that can be used once and then thrown away. This will protect your baby from germs that can grow in bottles and nipples.
- Bottle nipples, pacifiers, and other hard to clean items that touch flood water should be thrown away. They cannot be sanitized.
- Throw away all food that may have come in contact with floodwater or stormwater. When in doubt, throw it out.
  - CDC has information on how to [keep food safe after an emergency and flood](#).
- If you receive warning that a power outage may happen, consider making or purchasing extra ice to have on hand to keep breast milk and other food items cold.
- Freeze containers of water and gel packs to help keep your food cold during a power outage.
- Make sure you have an inexpensive freestanding [appliance thermometer](#) to check the temperature in your refrigerator and freezer.

#### During an emergency:

- Freezers, if left closed and full during a power outage, will keep food safe for about 48 hours (about 24 hours if half full). When freezers are full, the other frozen items help keep the freezer colder longer. The refrigerator will keep food cold for about 4 hours if it is unopened. While the power is out, keep the freezer and refrigerator doors closed as much as possible.
- Your refrigerator or cooler should be 40°F or below, and your freezer should be 0°F or below. If your refrigerator/freezer thermostats do not show the temperatures, use inexpensive freestanding [appliance thermometers](#). Even if your refrigerator/freezer do show the temperatures, appliance thermometers may be important if you lose power or have mechanical problems.

## Power outage considerations for families:

Loss of electricity can create many challenges for families during an emergency. Be prepared to safely store and prepare breast milk, infant formula or solid foods for infants and young children when there is a power outage.

#### Get Ready:

- If your baby is fed any amount of infant formula, keep RTF infant formula in single-serving cans or bottles as part of your emergency supplies in case the water is unsafe for mixing with powdered infant formula. Store in a cool, dry place.



### For breast milk:

- If you have any breast milk in the freezer, you can help keep the freezer cold by packing any empty spaces in the freezer with frozen containers of water or gel packs and keeping the freezer door shut.
- Your breast milk may still be safe once your power comes back on, but it depends on how long the power is out and how defrosted or warm the breast milk becomes.
- Once the power is back on, check the condition of your stored breast milk. Frozen breast milk that has started to thaw but still contains ice crystals can be refrozen. If your breast milk has completely thawed but still feels cold, put it in the refrigerator and use it within the next day or throw it away.

### For infant formula:

- Once the power is back on, check the temperature of your refrigerator. Throw away any opened or prepared formula that was in the refrigerator if your power has been off for 4 hours or more, or if the refrigerator temperature is above 40°F.

### For solid foods:

- Throw away all perishable foods in your refrigerator when the power has been off for 4 hours or more.
- Throw away all perishable foods in your freezer if they have thawed.
- You can safely refreeze or cook food from the freezer if the food still contains ice crystals and feels as cold as if refrigerated.



### LEARN MORE:

For more information on keeping food safe during a power outage, visit [USDA's Keep Your Food Safe During Emergencies: Power Outages, Floods & Fires](#).



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## ADDITIONAL RESOURCES FOR IYCF-E

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/additional-resources.html>

### CDC Resources

#### Feeding

- [Traveling Recommendations for Nursing Families](#)
- [Another Woman's Expressed Breast Milk](#)
- [Infant and Toddler Nutrition](#)
- [Supporting Families with Relactation](#)

#### Cleaning

- [Proper Storage and Preparation of Breast Milk](#)
- [Frequently Asked Questions on Cleaning Infant Feeding Items](#)
- [How to Keep your Breast Pump Kit Clean](#)
- [Planning Checklist for Diapering Stations in Shelters](#)

#### Emergency preparedness and response

- [Traumatic Incident Stress](#)
- [Safety Messages for Pregnant, Postpartum, and Breastfeeding Women During Disasters](#)
- [Emergency Preparedness and Response](#)
- [Access and Functional Needs Toolkit: Integrating a Community Partner Network to Inform Risk Communication Strategies](#)
- [Disaster Safety for Expecting and New Parents](#)
- [Reproductive Health in Emergency Preparedness and Response](#)
- [Keep Food Safe After a Disaster or Emergency](#)
- [Caring for Children in a Disaster](#)
- [Emergency Kit Checklist for Families with Children and Youth with Special Healthcare Needs \(CYSHCN\)](#)
- [Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health](#)

### Other Emergency and Preparedness and Related Resources

- American Academy of Pediatrics: [Infant Feeding in Disasters and Emergencies](#)
- American Academy of Pediatrics: [Emergency Information Forms and Emergency Preparedness for Children with Special Health Care Needs](#)

- Administration for Children & Families: [Infant Feeding During Disasters](#)
- HHS & USDA: [2020 – 2025 Dietary Guidelines for Americans](#)
- The Emergency Nutrition Network (ENN): [Operational Guidance on Infant Feeding in Emergencies](#)
- International Lactation Consultant Association (ILCA): [Facts about Breastfeeding in an Emergency: Especially for Health Workers](#)
- International Lactation Consultant Association (ILCA): [Facts about Breastfeeding in an Emergency: Especially for Relief Workers](#)
- The Emergency Nutrition Network (ENN): [Media Guides on Infant and Young Child Feeding in Emergencies](#)
- Carolina Global Breastfeeding Institute (CGBI): [Lactation and Infant Feeding in Emergencies](#)
- Save the Children: [IYCF-E Toolkit](#)
- USDA: [Guide to Coordinating WIC Services During Disaster](#)
- U.S. Department of Health & Human Services: [Hospital Preparedness Program \(HPP\)](#)
- Red Cross and FEMA: [Shelter Field Guide](#)
- American Red Cross: [Sheltering Handbook, Disaster Services](#)

## Mental Health Resources

### SAMHSA:

- [Depression in Mothers: More than the Blues](#)
- [Tips for Talking to Children after Traumatic Events](#)
- [Behavioral Health Disaster Response Mobile App](#) – assist those responding to disasters to ensure that resources are readily available
- [Behavioral Health Treatment Services Locator](#)
- [Disaster Distress Helpline Brochure](#)
- [Disaster Distress Helpline Card](#)



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## GLOSSARY

Accessible link: <https://www.cdc.gov/nutrition/emergencies-infant-feeding/glossary.html>

- **Breastfeeding**

- The practice of feeding an infant or young child breast milk directly from the breast. Also see “Chestfeeding, nursing.”

- **Breast milk / Human milk**

- Milk produced by the human mammary glands to feed infants and young children. Breast milk and human milk can be used interchangeably.

- **Chestfeeding**

- A term used by many masculine-identified trans people to describe the act of feeding their baby from their chest, regardless of whether they have had chest/top surgery (to alter or remove mammary tissue).

- **Complementary foods**

- Foods or drinks other than breast milk and infant formula that are introduced to infants around 6 months of age (e.g., infant cereals, fruits, vegetables). These are foods that are “complementing,” or adding to, the breast milk or infant formula that children are fed. Complementary foods can also be called solid foods.

- **Donor human milk**

- Pasteurized donor human milk is breast milk which has been donated to a milk bank.

- **Emergency**

- Can include recent infectious outbreaks, natural disasters and severe weather, radiation emergencies, bioterrorism, chemical emergencies or pandemics.

- **Exclusive breastfeeding**

- Feeding a baby only breast milk, not any other foods or liquids (including infant formula or water), except for medications or vitamin and mineral supplements.

- **Expressing milk**

- The process of removing milk from the breast, usually done with a manual or electric breast pump, or by hand.

- **Hand expression**

- A technique used to release breast milk from the breast without using a breast pump.

- **Infant feeding supplies**

- Infant feeding items include bottles and the nipples, rings, and caps that go with them. Certain bottles also may include valves or membranes. Some infants may be fed with a syringe, medicine cup, spoon, or supplemental nursing system.

- **IYCF-E**

- Infant and young child feeding in emergencies (IYCF-E) is the promotion and prioritization of safe and appropriate feeding for infants and young children (0-2 years of age) during a natural disaster or other emergency.

- **Lactation support providers**

- Someone who is trained in providing support to individuals who are lactating. Lactation support providers include Lactation Consultants, Breastfeeding Counselors, Breastfeeding Peer Counselors, and Lactation Educators.

- **Mixed feeding**

- Feeding an infant both breast milk and infant formula. Mixed feeding is also known as combination feeding.

- **Natural disaster**

- Includes different types of natural events such as a flood, hurricane, earthquake, or severe weather, that poses a threat to human health and safety, property, and critical infrastructure.

- **Nursing**

- A term used to describe the act of feeding an infant or young child breast milk.

- **People experiencing displacement**

- People who must leave their homes as a result of a disaster or crisis.

- **Postpartum**

- Related to the weeks following the birth of a child.

- **Powdered infant formula (PIF)**

- A breast milk substitute that requires safe water to be mixed in before feeding.

- **Ready-to-Feed (RTF) infant formula**

- A liquid breast milk substitute that does not require water to be mixed before feeding. RTF infant formula can also be called ready-to-use infant formula (RUIF).

- **Relactation**

- The process by which a parent reestablishes lactation after having stopped for some time (weeks or months).



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# Breastfeeding & pumping area





# Breastfeeding welcome here



# Breast milk storage



# Diaper changing station





# Family-friendly space



# Handwashing station



# Infant feeding preparation and cleaning station





**Need supplies  
to feed a baby?**  
Don't wait! Ask staff  
for what you need.



# Parent & baby feeding area



**Private:**  
**Do NOT disturb**





# STOP!

Do **NOT** wash or  
clean infant feeding  
supplies here.



**Wash and clean  
infant feeding  
supplies here**



# Waste and diaper disposal