

## Q&A about Babies at Evacuation Centers in Disaster Areas For Healthcare Staff



### Q1 Can babies get enough nutrients from breast milk?

**A** There is no need to worry if the baby is fine and pees as usual.

You can determine that baby is adequately breastfed if the baby sufficiently wets a diaper 6 times a day or more. Breast milk contains nutrients that babies need (even if their mothers do not eat enough) and protects them against epidemics that are likely to break out in disaster areas. Although mothers may temporarily have less milk than usual when they feel nervous or uneasy, they will have enough milk as before when they can relax to breastfeed. It is recommended to secure a nursing space separated by curtains to ensure some privacy. If impossible, you can let the mother use a scarf to cover up in order to avoid the unwanted attention. Support mothers to breastfeed their babies every time and as much as they want and allocate sufficient food to lactating mothers. It is not necessary to add formula to breast milk unless otherwise indicated for medical reasons (e.g. dehydration). Since clean hot water to prepare formula, baby bottles, and nipples are not often readily available during a time of disaster, breastfeeding is basically the best infant feeding option.



### Q2 What can we do if a baby bottle is not available?

**A** Babies can drink from a paper cup.

Babies can drink from a cup.

1. Pour milk into a paper cup until it is about halfway full.
2. Make sure the baby is awake and cradle baby in an upright position. Avoid cradling the baby in a supine position and making formula flow too quickly into the mouth.
3. Have the cup touch the baby's lower lip with the rim of the cup touching the upper lip. Let the baby drink milk little by little.

Let the baby drink milk on his/her own. Since it is not easy for the baby to drink much milk this way, take about 30 minutes per feeding. The number of feedings may be increased as appropriate. Since the amount per feeding is relatively small, evaluate the feeding amount on a daily basis. Throw paper cups away after each use, in principle. When the number of available paper cups is limited, however, they may be thoroughly washed with hygienic water and reused. When using ordinary cups, sterilize them with chemical liquid or in boiling water. If such sterilization is not available, wash cups thoroughly with hygienic water.



### Q3 What are the precautions when using liquid formula?

**A** Open the container immediately before use and throw away leftover liquid formula.

Ready-to-feed liquid formula can be convenient specifically during a time of disaster when no running water and heat source are available. As with baby formula, liquid formula can be given by using a cup, paper cup or spoon even when a clean baby bottle and nipple are not available. Liquid formula manufactured overseas is sometimes included in relief supplies. Please keep in mind that the expiration date format for such formula is different from that for formula manufactured in Japan. If the baby has never been fed with liquid formula, start with

small quantities. It is not necessary to give liquid formula to babies who have been breastfed. Mothers can continue breastfeeding, which gives babies a sense of security.



### Q4 What can I do when no baby formula/liquid formula is available?

**A** Support mothers to breastfeed wherever possible.

Breast milk is the most hygienic and appropriate nutritional source for babies. Recommend breastfeeding to mothers who have been using formula. Meanwhile, temporary dehydration can be avoided by giving 5% sugar solution, although it cannot provide sufficient nutrition. Such solution can be prepared by dissolving a tablespoonful of sugar in a cup of (about 200 mL) of hot water. Watery rice gruel can also be given on a temporary basis. These are, however, alternatives that provide mainly sugar and fluids. Other nutrients and electrolytes must be replenished. For babies of 6 months old or older, baby food (e.g. mashed cooked rice, banana, etc. mixed with boiled water to make a smooth consistency; baby rice crackers dipped and mashed in boiled water) can be given for nutrient replenishment.



### Q5 What should we do to maintain body temperature of babies?

**A** It is very important to keep babies warm specifically in cold disaster areas.

When you find a family with baby, try to move them to a relatively narrow closed space. The decrease in perceived temperature can be avoided by cutting off drafts, staying away from doorways, etc. Other effective measures include covering the floor with newspapers, cardboard, etc., and laying down the baby in a cardboard box with its bottom covered with newspapers, towels, etc. Help prevent the heat escaping from the face, neck, and head by, while keeping the airway clear, making air layers with clothes and shutting off cold air with vinyl items, not leaving the baby in a cold environment, and holding the baby close to mother's or other's body wherever possible. Tell the baby's mother to contact healthcare staff if the baby looks pale and sick. If the baby's body temperature cannot be maintained by taking all possible measures, medical attention must be sought since the baby might have acquired an infectious or other disease.



### Q6 What can we do if the baby cannot be kept clean (cannot bathe, baby wipes not available, etc.)?

**A** Baby's skin can be cleaned with a small amount of warm water.

It is not necessary to use drinking water for the baby's sponge bath; snowmelt water and river water can be used. Frequent sponge baths are recommended. Specifically, it is important to keep delicate genitals clean. Instruct mothers, when wiping the baby's body with soap, to save adequate water to remove soap residue with a wet towel. It is important to thoroughly remove soap residue that can cause rash.



### Q7 How should we address worsening of eczema?

**A** Appropriate skin care should be promoted.

Although some families worry that baby eczema is a sign of atopic dermatitis, it is not necessary to switch to hypoallergenic or allergen-free formula, or to stop breastfeeding, which has an anti-allergenic effect. Create an environment that encourages families to take care of their baby's skin. Use nonsteroidal ointment (e.g. Azunol) to treat severe eczema. Sudden eczema

and pustular eruption with fever, inadequate feeding, and sullenness can suggest infectious disease, which requires early medical attention. Meanwhile, since persistent eczema can suggest atopic dermatitis, medical attention should be sought.



### Q8 How can we prevent and treat diaper rash?

**A** In order to prevent and treat diaper rash, it is important to reduce skin irritation caused by direct contact with urine and stool by washing them off with water.

The normal barrier functions of the skin are, however, deteriorated by rubbing too hard or washing with soap frequently, leading to worsening of diaper rash. It is also important to make sure that the baby's skin is dry before putting on a diaper. Use of commercially available diaper rash cream or ointment containing zinc oxide is recommended to treat severe diaper rash, if available. If diaper rash still persists, medical attention should be sought since it may indicate infection with candida, etc.

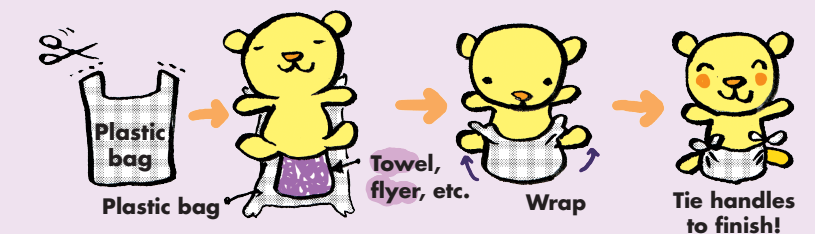


### Q9 What can we do if there are only a few diapers left or no diapers?

**A** Make the best use of the available diapers and craft a diaper out of a plastic bag and a towel.

Disposable diapers can be reused a few times since the back sheet is water-proof. When there are only a few diapers left, reuse a diaper by fitting a sanitary napkin, towel, cotton cloth, etc. inside. When the absorbent layer gets wet, remove the layer and use the remaining part as a diaper cover. Soak and wash the used cloth in water with oxygen bleach and detergent, rinse well, and dry to reuse. A diaper can be crafted out of a plastic bag and a towel as follows:

1. Cut the plastic bag handles and sides, open, and lay out flat.
2. Place a towel in the center. It is recommended to put a gauze or fleece patch on the towel that catches poop.
3. Fasten by tying the handles.



### Q10 What should we do if the baby vomits?

**A** Check the baby's general condition first.

If the baby has a fever with decreased level of consciousness, serious infection including meningitis is suspected, which requires immediate medical attention. Evacuation centers have an environment that is vulnerable to outbreaks of viral gastroenteritis. If vomiting is observed in multiple children around the baby, which suggests outbreak of viral gastroenteritis, alert the parents to disinfect their hands, properly dispose of diapers, etc. If vomiting persists, instruct the patients not to give their baby anything for a while and start giving fluids in small quantities. When symptoms of dehydration including decrease in urine volume due to persistent vomiting are observed or when the baby becomes ill, medical attention should be sought early. In order to prevent the spread of infection, explain to those who take care of the baby how to dispose of feces and how to disinfect their hands.



### **Q11** What should we do if the baby gets constipated?

**A** If the baby's abdomen is not swollen, it is recommend to massage his/her abdomen in a clockwise direction and move his/her legs.

If the baby's abdomen is swollen or the baby looks painful, dip a cotton swab in petroleum jelly or oil (alternatively, mother's saliva or water) then insert only the tip (about 2 cm) inside the baby's anus, gently circling the swab around the anus. Constipation occurs in babies due to changes in environment and inadequate feeding. Therefore, confirm the urine volume and feeding amount, and, if fluid intake is inadequate, consider how to rehydrate the baby.



### **Q12** What should we do when the baby has diarrhea?

**A** Check the baby's face color and symptoms of dehydration including sunken eyes.

Check the amount and frequency of diarrhea, urine color, and urination frequency. It is not necessary to limit breastfeeding. If feeding is possible, increase its frequency. In addition to providing fluids, it is also important give the baby salt and sugar. In this context, electrolyte drinks for infants can be given. Prompt the mother and other caregivers to clean their hands after changing a diaper. If the baby looks dizzy due to dehydration and is not likely to drink well, medical attention should be sought early.



### **Q13** What should we do if the baby suffers from a runny or stuffy nose?

**A** Check with the baby's mother if the baby drinks milk well and observe the baby's respiratory condition.

Explain to the baby's mother that she does not need to worry about a runny nose if the baby drinks well, thereby relieving her concern.

Nasal suction is an effective way to alleviate a heavy runny nose. If a nasal aspirator is not available and the baby's mother wishes, instruct how to suction the baby's nose with the mouth. When using a nasal aspirator, make sure to use it at low pressure to avoid damage to the baby's delicate nasal passage. If the baby scarcely drinks milk or respiratory condition is deteriorating, medical attention must be sought.



### **Q14** What should we do if the baby coughs or wheezes badly?

**A** Check with the baby's mother if the baby drinks milk well.

Explain to the baby's mother that she does not need to worry if the baby drinks well and is adequately hydrated, sleeps well, and is in a good mood, thereby relieving her concern. If the baby does not drink well, recommend the mother to shorten feeding time (decrease the amount per feeding for formula feeding) and to increase feeding frequency. If the baby is in a bad mood and drinks only a little (e.g. very weak sucking, drinking formula less than half the usual amount), frequently coughs with vomiting, or cannot sleep due to coughing or wheezing, or if croup is suspected, medical attention must be sought immediately.

Use of over-the-counter cold medicine and combination cold remedy in babies should be avoided. These drugs contain antihistamine agent, antitussive agent, etc. that hinder the physiological response to excrete unnecessary secretions (i.e. cough and nasal discharge), which could result in pneumonia and otitis media.



### **Q15** What should we do if the baby cries at night frequently?

**A** It is quite normal that babies often cry at night.

During a time of disaster, even adults become nervous; it is natural that babies also feel uneasy and cry at night. Hence tell mothers that night time crying is not due to lack of their effort. Encourage mothers and other caregivers, even if their baby does not stop crying after breastfeeding, changing a diaper, adjusting temperature, etc., to take care of their baby as usual and to affectionately cradle their baby in their arms. What is important is to give the baby a sense of security. Meanwhile, in order to ease the stress on the baby and caregivers, it may be helpful to leave from where they are now for a change (e.g. piggyback ride, going outside for a breath of fresh air, moving to a well-lit area). If there is enough room at the evacuation center, suggest the person who opened the center divide the space into zones by age, activity, etc. of evacuees. In this way, mothers can breastfeed without hesitation and caregivers do not need to worry about bothering others with night time crying. It is recommended that the public health nurse give clear explanation to those around the baby about why babies cry at night to promote their understanding.



### **Q16** What should we do if the baby is feverish (and a thermometer is not available)?

**A** If the baby is assessed to be stable based on appetite, sleep, mood, etc., explain to the baby's family that they do not need to worry so much, thereby relieving their concern.

When environmental factors (heavily clothed) are the cause of fever, eliminate such factors. If the baby's body temperature decreases, follow-up observation is appropriate. Even in case of significant fever, if the baby has no other symptoms, instruct the family to avoid dehydration by frequent feeding, etc. If the baby, in addition to having fever, does not look well, has a low appetite, is in a bad mood, vomits frequently, etc., medical attention must be sought. Specifically, in early infancy (younger than 3 months old), severe bacterial infection including purulent meningitis may be suspected. Even if the baby looks fine, periodical follow-up is necessary.



### **Q17** What should we do if the mother looks overly tired or stressed?

**A** Create a comfortable environment for the mother, give her advice, and ask people around her for support.

Since families with babies try not to bother people around them and are susceptible to increased stress, create a comfortable environment (e.g. nursing room, room for family with children) and have a system where they can talk at any time with healthcare staff. Also ask the family and people around them to support the mother. Meanwhile, since the risk of abuse increases during a time of disaster, it is important to listen to them on a periodic basis. Consult with a child guidance center if required. If symptoms are severe or persist, medical attention should be sought and necessary care provided.

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## **for Healthcare Staff**

**Disaster Countermeasure Committee**  
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Japan Society for Neonatal Health and Development  
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Japan Society of Perinatal and Neonatal Medicine  
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