# Young Children and Travel

## Traveler Summary

### Key Points

- Ascertain requirements for minimum age to travel and use of child safety seats.
- Plan some travel activities that are age appropriate; reestablish routines upon arrival.
- Alleviate a child's ear pain by feeding/nursing or having the child use a pacifier, chew gum, or yawn. Use of decongestants in children younger than 12 years is not recommended.
- Because children are more prone to travelers' diarrhea and dehydration, carry oral rehydration solutions or Pedialyte, obtain safe water, and use safe water for preparing formula (breastfeeding is optimal with infants when possible). Seek medical care if fever over 38.5°C (101.5°F) or persistent vomiting is present. Antibiotics may be needed with health care provider guidance. Loperamide may be used in children older than 2 years.
- Be aware that some routine vaccines (hepatitis A and MMR) need to be accelerated for travel (not all pediatricians know this). Some destination-specific travel vaccines cannot be given to children younger than a minimum age for that vaccine.
- Use DEET or 20% Picaridin on all exposed skin. Zika, malaria, and dengue are worse in children. A weekly antimalarial (such as mefloquine) is more convenient to administer to young children than a daily drug.
- Teach children to report all contact with animals; a low threshold for administering preexposure rabies vaccination to children exists.
- Carry pictures of the children in case they become separated from family. Label inside of clothing in small children. Avoid any external exposition of a name to prevent strangers from calling out to a child. Have explicit written consent for travel and for medical care from any unaccompanying parent.

## Introduction

When planning travel with children, parents should discuss the risks and benefits of such travel with their child's health care provider or a travel medicine specialist. A pretravel health assessment is an important first step. Children have the same travel-related risks that adults have, but they are more prone to diarrhea, parasitic skin infections, and animal bites and are more likely to require hospitalization if they become ill. Prevention of intestinal infection and rapid initiation of oral rehydration supplementation to treat diarrhea should be a high priority in infants and children because they dehydrate more quickly (and have more serious consequences) than adults do. Dengue and malaria are more serious in young children; therefore, personal protective measures should be emphasized. Despite the magnitude of Zika virus outbreaks and its association with birth defects, such abnormalities have not been reported in infants with postnatal Zika virus infection.

In addition to addressing health and safety issues, parents should plan an itinerary and pace that allow time for age-appropriate activities, adequate rest, and regular feeding and sleeping schedules. Parents should also consider destination-appropriate methods for transporting young children, such as using backpacks rather than strollers.

## Air Travel

Check with the airlines to see if they have a minimum age for flying. Some airlines have a minimum age requirement (e.g., age of 1-2 weeks) and may require a medical clearance letter for children younger than this age. Also ask about the need to purchase a separate seat ticket for the child and requirements for the use of child-restraint seats. See ***Air Travel***.

A lap child must be held without any additional tie-ins or restraints during taxi, take-off, and landing. Infants and toddlers usually have poor inner ear tube function and often have bouts of otitis media, which can increase the risk of ear pain, especially during descent. Many expert pediatricians do not recommend the use of decongestants for children younger than 12 years to prevent ear pain, due to potential side effects. If the child experiences ear pain while flying, yawning, chewing (gum or sweets), swallowing (bottle or breastfeeding for infants), sucking on a pacifier, drinking from a cup, or placing a warm towel over the ear can help relieve the pain.

In-flight sedation for young children is not recommended. Speak to the child's health care provider for options to prevent motion sickness in children 12 years and older.

Activity books, personal electronics, games, and toys as well as nutritious snacks and beverages should be readily available when traveling with children. Call the airline in advance (48 hours) to order special meals for children if needed.

## Diarrhea and Dehydration

Children, especially infants, are more susceptible than adults to travelers' diarrhea and are at greater risk of becoming become severely and quickly dehydrated.

Observe strict food and beverage precautions (see ***Food and Beverage Precautions***) and plan ahead to obtain safe water for formula and food preparation. Hand hygiene (frequent, thorough handwashing), use of antiseptic wipes, and regular cleaning of pacifiers and toys are vital. For infants, breastfeeding during the trip is an optimal strategy if appropriate and feasible.

If a child becomes dehydrated, oral rehydration solution (ORS) is the best treatment. ORS is often available in pharmacies in developing countries, but parents should carry their own ORS packets to be reconstituted with the correct amount of safe water. Some parents prefer to carry a few bottles of already reconstituted solutions, such as Pedialyte. Homemade sugar and salt solutions are not recommended. Sports drinks do not contain adequate electrolytes and should be avoided, although any liquid is better than none until ORS can be obtained. Most traditional ORS products taste salty, but flavoring makes some more palatable (e.g., rice-based Ceralyte and Gastrolyte). A child who is vomiting may rehydrate successfully with frequent, small sips, spoonfuls, or syringefuls of an ORS. Reconstituted ORS held at room temperature should be discarded after 12 hours; reconstituted ORS that has been kept refrigerated must be discarded after 24 hours.

- In general, an infant (who is not severely dehydrated) weighing less than 10 kg (22 lb) should receive 2 to 4 ounces of ORS for every loose stool or vomiting episode; give 4 to 8 ounces to children weighing more than 10 kg.
- Immediate medical care is imperative if the infant or child shows signs of severe dehydration, bloody diarrhea, fever greater than 38.5°C (101.5°F), or persistent vomiting. Continue to give ORS while seeking medical care.

In addition to rehydrating the child, antibiotics may be used in some cases. Ask the health care provider about the merits of carrying an antibiotic for use in children and for instructions on when it should be used.

Other drugs, such as loperamide, can be used in some children 2 years and older; it should not be used in children younger than 2 years or in children who are malnourished, very dehydrated, ill, or with bloody diarrhea. Bismuth subsalicylate (Pepto Bismol) is not recommended for children younger than 12 years and should be used with caution in older children and adolescents with a viral infection (e.g., influenza or chickenpox). Discuss these options with the health care provider, especially regarding proper dosing. See ***Travelers' Diarrhea***.

During recovery, a normal diet should be introduced as quickly as the child will accept it.

## Vaccinations

Plan a visit to the children's health care provider well before the time of departure to allow a full assessment of the need for vaccinations. Children should be up-to-date on all childhood vaccinations and should be vaccinated for diseases that might present a risk during travel.

## Malaria Prevention

All children traveling to malaria risk areas, including young infants and breastfed infants, should observe personal protection measures against mosquito bites (see ***Insect Precautions***) and take antimalarial drugs (see ***Malaria***). Young children should avoid travel to areas with ***P. falciparum*** unless they can take a drug that is highly effective (see ***Malaria***). Attention to the correct dosage, which is based on weight, is critical because many antimalarials have narrow toxicity ranges. Antimalarial medicines should be stored in childproof containers and out of reach of children to avoid accidental overdose.

In younger children, a weekly dosed drug (such as mefloquine) is more convenient to administer. The health care provider can provide tips on how to improve adherence to the antimalarial medicine (e.g., how to hide the bitter taste or facilitate the swallowing of a tablet). Preventive treatment for malaria should begin 2 to 3 weeks before travel to a malarious area if using mefloquine, 1 week before travel if using chloroquine, and 1 day before travel if using doxycycline (for children 8 years and older) or atovaquone-proguanil (may be multiple tablets per day).

Mefloquine, chloroquine, and doxycycline must be taken regularly while in the malarious area and continued for 4 weeks after exposure ends. Atovaquone-proguanil (Malarone) must be taken regularly while in the malarious area and continued for 1 week after exposure ends.

## Breastfeeding

Women who are breastfeeding can receive all vaccines, with the exception of yellow fever vaccine. A regular breastfeeding schedule should be maintained for the infant while traveling.

The infant must be protected and should be vaccinated according to the recommended schedule/itinerary. However, for some diseases (e.g., yellow fever, measles, and meningococcal meningitis), the infant cannot be vaccinated at birth, different minimum ages apply for each vaccine, and the infant does not gain protection through the mother's breast milk, all of which must be taken into consideration when planning travel to areas where these infections may be a risk.

Mefloquine and chloroquine are considered safe for malaria prevention while breastfeeding. Breastfeeding infants weighing more than 5 kg (11 lb) while taking atovaquone-proguanil (Malarone) is acceptable. However, any of the antimalarial medicines taken by the mother will not protect the infant against malaria, and the child must be given his or her own medication.

A nursing mother with travelers' diarrhea should continue to breastfeed but must increase her fluid intake. Breastfeeding children with diarrhea should increase their frequency of feeding and should not be offered food or fluids to replace breastfeeding. Use of azithromycin or loperamide by the nursing mother is considered to be compatible with breastfeeding.

# Environmental and Insect Protection

## Environmental Issues

Children should avoid temperature extremes while traveling, wear hats with substantial protection, wear light-colored, protective cotton clothing, and use sunscreen frequently. Children, particularly infants and toddlers, are at high risk for heat-related illness; therefore, parents should monitor their activity levels, keep them in the shade, and administer sufficient fluids.

When contemplating taking young children to altitude, parents should be aware that preschool-aged children and younger, especially preverbal children, will not be able to communicate how they are feeling and will need to be observed closely for signs such as irritability, nausea, or vomiting. See ***Altitude Illness***.

To prevent certain skin infections (such as hookworm), children should wear protective footwear, avoid walking barefoot in rural areas of the tropics, and avoid playing directly on the ground or beach. Snake bites and jelly stings can be more severe in children than in adults.

Animal bites are more common in children than in adults and may not always be apparent. These wounds can still result in rabies and require a series of postexposure vaccinations. Children should be taught to avoid animals (especially dogs in developing countries) and to report to their parents if they have touched any kind of animal.

## Insect Precautions

Either DEET or picaridin-containing repellents can be used in children 2 months and older. The maximum concentration of DEET that should be used in children is 30%. Picaridin is equally protective and has the same duration of protection as DEET when used at the same concentration. However, no information exists on the maximum concentration of picaridin for children. Concentrations of less than 20% are thought to be inadequate for prolonged protection and require more frequent application. Avoid applying repellent to the child's eyes and mouth. Do not apply to children's hands because they frequently put their hands in their mouths. If breastfeeding, do not apply insect repellent to the nipple area, to prevent ingestion of the repellent by nursing children. See ***Insect Precautions***.

When both sunscreen and repellent are used, sunscreen should be applied first. Products containing both repellent and sunscreen should not be used. Mosquito nets can help protect infants during the day while in a crib or stroller.

# Medications

Families traveling with children should carry a medical kit for the management of medical problems encountered during travel (see ***Packing Personal Medications and Supplies***), as well as any medications used regularly by the child. Carry a copy of any prescriptions used and bring along the original container. Certain prescription drugs, such as amphetamines used to treat attention-deficit hyperactivity disorder (ADHD) and some over-the-counter drugs, such as common pediatric cold preparations, may not be brought into some foreign countries. A thermometer to assess illness severity should always be at hand.

# Safety and Security

Because safety standards in some countries may differ from those at home, parents should maximize the safety of the surrounding environment and be extra vigilant. Injuries are responsible for far more deaths during international travel than are infectious diseases. Important precautions parents can take include:

- Carrying a photograph of their child, as well as a digital version on their cell phone, in case the child gets lost.
- Establishing an age-appropriate plan for their child in case the child gets separated from them.
- Labeling the inside of clothing of younger children. Personal identification should not be visible, to prevent strangers from greeting children by name.
- Having older children carry identification and a home, cell, or hotel phone number at all times.
- Child-proofing hotels, homes, and play areas.
- Direct parental monitoring in all hotel and resort areas because enclosed fenced areas for swimming pools may be absent.
- Examining standards for safety from a child's point of view before any activity.
- Bringing car seats for young children, although the adequacy of the fastening system in local vehicles may be deficient.
- Bringing personal flotation devices from home.
- Bringing bike helmets from home.
- Cautioning adolescents about engaging in body piercing, tattooing, and casual sexual activity in high-risk foreign countries.
- Discouraging adolescents from unaccompanied activities in urban areas, especially at night.
- Carrying a letter from a nonaccompanying parent, whether married or divorced, giving permission for the child to travel and consent for any necessary medical care.