Although exciting, preparing for travel can also be stressful. When travelling with children, extra thought needs to be given to health risks and how to prevent them.

Children are more susceptible to illness than adults for a variety of reasons. In addition to their immune systems not being as developed as those of adults, the consequences of an illness in a child tend to be more serious than for the same illness in an adult. It may also be more difficult to identify an illness in babies and children as they are not yet able to talk or describe their symptoms.

The most commonly reported illnesses in children who travel include:

- diarrhoea
- skin conditions due to, for example, animal or insect bites or sunburn
- fever due to systemic infections, for example, malaria
- respiratory illnesses.

It is important to take note of where the child will be travelling to, how the child will be travelling (e.g. by car, air or boat) and where the child will be staying (e.g. in hotels, camping or with friends or relatives). It may be necessary to refer the parents to their child’s doctor or to a travel clinic to discuss preventative medication and also the risks involved in travelling to certain areas.

**Don’t hesitate: vaccinate!**

Parents should ensure that their children are up to date with all childhood vaccines and booster doses before travel. For example, children are vaccinated against measles as part of the routine vaccination schedule in South Africa, but some children may not be up to date with this vaccine. Measles is highly contagious and outbreaks occur throughout the world.

Children may also be especially vulnerable to vaccine-preventable illnesses when travelling abroad and they may require vaccinations outside of their routine schedule. The following vaccines are recommended in addition to the routine schedule for children who are travelling out of the country:

- **Influenza (flu) vaccine:** This vaccine should be considered for infants aged six months and older to prevent their contracting flu during the trip. The flu season usually runs from November to April in the northern hemisphere and from April to October in the southern hemisphere, but in the tropics, flu season may be all year round. A flu virus may also circulate throughout large tourist groups living in close quarters, for example, on a cruise ship, year round.
- **Hepatitis A vaccine:** Food or water may be contaminated with the hepatitis A virus, of which infection could lead to jaundice, vomiting, diarrhoea and fatigue. This illness may take weeks to resolve and is easily prevented by vaccination.
- **Typhoid vaccine:** Typhoid fever is contracted through food and water contaminated by human faeces or urine. This disease is more prevalent in developing nations, such as those in Africa, India, South East Asia and South America.
- **Meningitis vaccine:** Certain areas in Africa and Saudi Arabia are at high risk for meningitis outbreaks and travellers are particularly vulnerable if living in close contact with the local population for extended periods.

Certain countries may require proof of vaccination against diseases such as yellow fever or meningitis. Saudi Arabia, for example, requires proof of meningitis vaccination before allowing religious travellers to enter.

- Vaccine recommendations may be age dependent. Younger or unvaccinated children may therefore be more vulnerable to contracting an infectious disease.
- Some vaccines take a while to become effective and need to be given a couple of weeks in advance to offer protection.
- Advise parents to consult their child’s healthcare provider or to visit a travel health clinic well before travel (at least two weeks, if possible) to discuss travel plans.
**Diarrhoea**

Travellers’ diarrhoea is one of the most common illnesses affecting children when they travel. Children, especially infants, are particularly vulnerable to dehydration due to diarrhoea.

The following precautionary measures may help to prevent gastro-intestinal illness such as travellers’ diarrhoea:

- Follow basic food and water precautions. Ensure that drinking water is safe for consumption and that unpeeled fruits and vegetables have been washed in clean, safe water. Food should be cooked properly and eaten while it is still hot.
- Have children wash their hands frequently. If soap and water are not readily available, use an alcohol-based hand sanitiser to disinfect hands.
- Breastfeeding is the best way to prevent diarrhoea in infants. If babies are bottle fed, ensure that bottles have been sterilised and that clean, safe water is used to prepare the formula.
- Avoid food from street vendors.
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If soap and water are not readily available, use an alcohol-based hand sanitiser to disinfect hands.

The best way to manage diarrhoea or vomiting is by giving the child or infant an oral rehydration solution (ORS). This helps prevent and manage the most serious complication of diarrhoea, namely dehydration. A fever may further speed up water loss and dehydration in a child. An ORS should be reconstituted using boiled (and cooled) or treated water and be given to the baby in addition to their breast milk or formula feed. If an ORS is not immediately available, children should be offered whatever safe, acceptable liquid is available (e.g. dilute apple juice or weak black tea) until an ORS can be obtained.

Seek immediate medical attention for a vomiting infant or young child in the case of diarrhoea if:
- there is blood in the stools
- the child has a temperature above 38.6 °C
- persistent vomiting prevents successful oral rehydration; the child may need intravenous administration of fluids
- the child shows symptoms or signs of moderate or severe dehydration.

**Malaria**

Taking children into a high-risk malaria area should best be avoided, if possible. Children – especially those under five years of age – are at a particularly high risk for developing severe complications from malaria. In addition, the symptoms of malaria are similar to those of many other paediatric illnesses and, as a consequence, misdiagnosis may delay proper treatment. If travelling with children to a malaria area cannot be avoided, it is very important that the child be referred to a doctor for the appropriate antimalarial prophylaxis.

No antimalarial prophylaxis is 100% effective and non-drug measures should be advised for all travellers, including children, to prevent mosquito bites. These non-drug measures include:
- sleeping in rooms that are air-conditioned or have mosquito screens fitted on the windows
- sleeping under mosquito nets
- dressing children in long pants and sleeves, especially when outdoors between dusk and dawn
- applying insect repellents that contain DEET ($N,N$-diethyl-$m$-toluamide) to exposed areas of skin. Products containing 30–35% DEET appear to be safe in babies and children older than two months of age. DEET-containing repellents should not be used in infants younger than two months of age.

- No preventative malaria medication is 100% effective and measures to prevent bites should also be adopted.
- Parents need to be made aware of the signs and symptoms of malaria and immediately seek medical attention if the child develops a fever or flu-like symptoms while travelling or upon return. The doctor should be alerted that the child has been in a malaria-endemic area.
- The type of mosquito that transmits malaria bites between dusk and dawn.

**Other insect-borne illnesses**

The pathogens that cause diseases such as chikungunya, dengue fever, yellow fever and Zika virus infection are also transmitted by mosquitoes. The same preventative measures should be adopted as for malaria. However, bear in mind that the mosquitoes that transmit these infections usually bite during daylight hours.

Tick-bite fever is also a common illness transmitted by certain ticks found in South Africa. Insect repellents containing DEET may also help prevent tick bites.

**Animal bites**

Children are more susceptible to animal bites than adults owing to their being more likely to play with unfamiliar animals. This unfortunately also puts them at a higher risk of contracting rabies through a bite or a scratch from an infected animal’s saliva. Rabies is fatal and can be prevented only through a series of vaccinations and the administration of an immunoglobulin. The immunoglobulin (or the vaccine) is not always readily available in some countries. Although rabies vaccination before travel negates the need for administering the immunoglobulin in case of a bite, a short vaccination series after a bite or scratch will still be necessary if there is a possibility of an animal being infected with rabies.

- Children should be discouraged from touching or playing with animals however tame they appear. Encourage children to report any scratch, lick or bite from an animal.
- Any animal bite should be thoroughly flushed with soap and water for at least 15 minutes. Immediately take the child for a rabies risk assessment.
Planes, boats and automobiles

Motion sickness commonly affects children between the ages of 2 and 12 years. To reduce the risk of motion sickness, encourage the child to look out the window rather than at a fixed point, have fresh air circulate, if possible, and take frequent rest stops when travelling by car.

Children with certain chronic conditions, such as chronic heart or lung problems, should be assessed by their doctor before air travel owing to the risk of hypoxia (when oxygen from the lungs does not reach the tissues effectively).

Some infants and children struggle equalising the pressure in their ears at take-off and landing when travelling by plane. Encouraging an older child to swallow, yawn or chew (e.g. chewing gum) during take-off and landing may help relieve the pain and equalise the pressure. Similarly, infants may be fed during take-off or landing to encourage the swallowing action, which could minimise pressure and pain.

Other noteworthy tips when travelling with tots:
• Children and babies should be protected from the sun as much as possible. The use of hats and UV protective clothing is encouraged. Sunscreen (SPF 50+) should be applied and then reapplied after swimming or sweating. Babies younger than six months are particularly vulnerable to sunburn and should be kept out of the sun, with protective clothing covering the entire body. Sunburn in babies younger than six months is considered a medical emergency.
• Altitude sickness (acute mountain sickness) is more common in children and often not easily identifiable. Symptoms to look out for include loss of appetite, irritability, changes in sleep patterns, headache and shortness of breath.
• Parents should be encouraged to pack a travel first-aid kit for minor injuries or illness.

Bibliography