



Rotavirus is a common cause of childhood diarrhea, and a major cause of childhood mortality worldwide. But a newly approved vaccine will help children avoid it in the first place.

Protect Your Child from Rotavirus



By Tracy A. Mozingo

“Doctor visits? 400,000. Emergency room visits? More than 200,000. Hospitalizations? 55,000 to 70,000. Cost of treatment and lost productivity? More than \$1 billion annually. Preventing the leading cause of diarrhea in infants and young children in the United States and worldwide? Priceless.”

A public service advertising campaign about rotavirus might read like the above paragraph. Rotavirus is a virus that causes severe diarrhea, mostly in babies and young children. Vomiting, fever, and dehydration often accompany it. This virus infects almost 100 percent of children in the United States before the age of five, and between 20 and 60 youngsters die from it every year. In developing countries, that number is much higher (more than half a million deaths each year among children under age five), making it a major cause of childhood deaths.

The Symptoms and the Spread

Rotavirus outbreaks are usually seen between November and May. Infection usually starts with a fever, upset stomach, and vomiting, followed by frequent and watery diarrhea. This stage usually lasts five to seven days.

Sometimes the diarrhea that accompanies a rotavirus infection gets so severe that it can quickly lead to dehydration. Signs of dehydration include thirst, irritability, restlessness, lethargy, sunken eyes, a dry mouth and tongue, dry skin, fewer trips to the bathroom to urinate, and, in infants, a dry diaper for several hours.

“It’s not so much the infection that makes rotavirus so serious,” explains Robert Steele, M.D., FAAP, chairman of the Missouri Advisory Committee on Childhood Immunizations. “Instead, it is the complications that are associated with it — vomiting, diarrhea, and dehydration, especially.”

Once a child is exposed, symptoms may not appear for a couple of days. During this time, children often pass the virus along to others. Once infected, a child will shed large amounts of rotavirus in the stool, so the virus is easily spread on contaminated hands and objects.

“Rotavirus is unique in that it can last on hard surfaces for many days,” Dr. Steele says. “Other viruses die pretty quickly. Many times, leaky diapers, infected toys, and those who do not wash their hands frequently — especially after diaper changes — are to blame for the spread of rotavirus.”

Another way rotavirus is spread is through high-traffic areas for infected children, most notably child-care centers, pediatricians’ offices, and hospitals. Because of the many children who come in contact with each other in these settings and the virus’s highly contagious nature, parents and children need to be especially aware of hygiene when attending, visiting, or receiving treatment in one of these places.

Treatment

Because they only work against bacteria, antibiotics cannot cure or even treat rotavirus infection. Infected children need to be monitored closely for dehydration. Your doctor may recommend special drinks with sugar and minerals that replace body fluids, especially if the

Caring for Your Sick Child at Home

Because rotavirus is highly infectious and can cause serious dehydration, you will want to limit its spread and make sure your child gets plenty of fluids. The following are a few suggestions:

- Follow your doctor's instructions.
- Instead of large meals, give your child smaller, more frequent feedings.
- Make sure your child is getting enough fluids.
- An electrolyte replacement such as Pedialyte might be recommended, but be sure to follow the label directions.
- If your child has a fever, give your child the appropriate dose of acetaminophen (such as Tylenol). Do not give your child aspirin.
- Wash hands after diaper changing or touching stool.
- Make sure your child gets plenty of rest.
- Keep follow-up appointments with your doctor.



diarrhea has been going on for longer than two or three days.

In general, children with mild diarrhea who are not dehydrated should continue to eat normally while drinking more fluids than usual. Avoid fruit juices and soft drinks because these can make diarrhea worse.

Breastfed infants should continue breastfeeding. If a child is vomiting, it may help to eat smaller amounts more frequently. Follow your pediatrician's advice and avoid giving your child any medicines for vomiting or diarrhea unless your doctor recommends them.

In more severe cases of rotavirus with dehydration, children may need to be hospitalized so that they can get fluids intravenously.

Let's Prevent It

Hand washing is still an important way to prevent rotavirus from spreading, but it is not the most reliable way to do so. The U.S. Food and Drug Administration (FDA) approved a new vaccine for rotavirus on February 3, 2006. It has proven successful in preventing about 74 percent of all rotavirus cases, about 98 percent of severe cases, and about 96 percent of hospitalizations due to rotavirus, according to the U.S. Centers for Disease Control and Prevention (CDC). It will not, however, prevent diarrhea and vomiting caused by other viruses. Now that FDA's approved a universally recommended vaccine for all infants, rotavirus in the United States should decrease.

"This vaccination works very well to eliminate the complications of rotavirus. I wholeheartedly recommend every infant be immunized so we can prevent the spread of this very uncomfortable, and sometimes life-threatening, illness," Dr. Steele advises.

The American Academy of Pediatrics (AAP) recommends including the rotavirus vaccine in the lineup of routine immunizations given to all infants. The recommendation calls for three doses by mouth at around two, four, and six months of age.

This newly approved rotavirus vaccine should not be confused with a rotavirus vaccine of the late 1990s. That vaccine was taken off the market after it was thought to be associated with cases of an uncommon bowel obstruction (intussusception).

The new rotavirus vaccine has been tested with more than 70,000 children and has not shown any association with intussusception, according to the National Institutes of Health. "The technology and the administration of this vaccine are different from the previous one," says Dr. Steele. "Ongoing surveillance is proving this new vaccine to be quite effective and safe for children." ●