



## ROTAVIRUS

### ABOUT THIS DISEASE

Rotavirus disease is caused by a virus that spreads easily among infants and young children. The virus can cause severe watery diarrhea, vomiting, fever, and abdominal pain. Children who get rotavirus disease can become severely dehydrated and need to be hospitalized and can even die.

Before rotavirus vaccine, rotavirus disease was a common and serious health problem for children in the U.S. Almost all children in the U.S. had at least one rotavirus infection before their 5<sup>th</sup> birthday. Older children and adults can also be infected.

### SIGNS AND SYMPTOMS

Symptoms usually start roughly 2 days after a person is exposed to the virus.

Children infected with rotavirus may have:

- Severe watery diarrhea
- Vomiting
- Fever
- Abdominal pain
- Loss of appetite
- Dehydration (loss of body fluids)

Vomiting and watery diarrhea can last from 3 to 8 days. Dehydration can be especially dangerous for infants and young children. Symptoms of dehydration include:

- Decrease in urination
- Dry mouth and throat
- Feeling dizzy when standing up
- Crying with few or no tears
- Unusually sleepy or fussy

Older children, adults and people with weakened immune systems can also get sick from rotavirus. Adults who get rotavirus disease tend to have milder symptoms.

### TRANSMISSION

People infected with rotavirus shed the virus in their stool (feces). The virus spreads by the fecal-oral route, which means, the virus is shed in the stool of an infected person and then enters the mouth of another person to cause infection. Rotavirus can spread by close person-to-person contact or by contaminated:

- Hands
- Objects (toys, surfaces)
- Food
- Water

Rotavirus is very contagious and spreads easily among infants and young children. Children can spread the virus both before and after they become sick with diarrhea. They can also pass rotavirus to family

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members and other people with whom they have close contact. Persons shed the rotavirus most when they are sick and during the first 3 days after they recover.

## **DIAGNOSIS**

The signs and symptoms of rotavirus infection are similar to those caused by other diseases. Therefore, rotavirus must be diagnosed by laboratory testing (detecting rotavirus in the stool).

## **TREATMENT**

There is no specific medicine to treat rotavirus infection.

Vomiting and diarrhea can lead to dehydration, especially in infants and young children, older adults, and people with other illnesses. Oral rehydration solutions (ORS) are most helpful for mild dehydration. These are commonly available in food and drug stores. Severe dehydration may require hospitalization for treatment with intravenous (IV) fluids, which are given to patients directly through their veins. Persons with signs of dehydration (see “Signs and Symptoms” above) should contact a healthcare provider.

## **IMMUNITY**

Vaccinated and unvaccinated children may develop rotavirus disease more than once because neither vaccine nor natural infection provide full immunity (protection) from future infections. Reinfection can occur at any age. A child’s first infection with rotavirus tends to cause the most severe symptoms.

## **RISK IN HAWAII**

Because health care providers are not required to report Rotavirus disease to the Department of Health, the number of cases occurring annually in Hawaii is unknown.

## **PREVENTION**

Good hygiene like handwashing and cleanliness are important, but are not enough to control the spread of disease.

Rotavirus vaccine is the best way to protect children against rotavirus illness. Almost all children (about 9 out of 10) who get the vaccine will be protected from severe rotavirus illness. Most vaccinated children will not get sick from rotavirus at all, and if they do get sick, their symptoms are usually less severe than unvaccinated children.

Infants should routinely be vaccinated with either of the two rotavirus vaccines:

- RotaTeq® (RV5), which is given in 3 doses at ages 2 months, 4 months, and 6 months; or
- Rotarix® (RV1), which is given in 2 doses at ages 2 months and 4 months.

The first dose of rotavirus vaccine should be given before a baby is 15 weeks of age. Infants should receive all doses of rotavirus vaccine before they turn 8 months of age.

Both rotavirus vaccines are given orally.

Rotavirus vaccines do not prevent diarrhea or vomiting caused by other viruses or diseases.

#### **ADDITIONAL RESOURCES**

- CDC Website: <https://www.cdc.gov/rotavirus/index.html>
- Vaccine Information Statement: <https://www.cdc.gov/vaccines/hcp/vis/vis-statements/rotavirus.pdf>

#### **INFORMATION FOR CLINICIANS**

- CDC Website: <https://www.cdc.gov/rotavirus/hcp/clinical-overview/index.html>