

Adenovirus

What Are Adenoviruses?

Adenoviruses are a group of viruses that can infect the membranes (tissue linings) of the:

- respiratory tract
- eyes
- intestines
- urinary tract
- nervous system

What Are Adenovirus Infections?

Adenoviruses are common causes of fever and illnesses such as:

- colds
- pinkeye
- croup
- bronchitis
- pneumonia
- diarrhea

Adenovirus (add-eh-noe-VY-rus) infections are usually mild, but serious infections can happen. Infants and people with weak immune systems are more likely to have severe problems. Some types of the virus are linked to more severe disease.

Who Gets Adenovirus Infections?

Adenovirus infections can affect children of any age. But they're more common in babies and young children. Most kids have had at least one adenovirus infection before age 10. There are many different types of adenoviruses, so people can have more than one adenovirus infection.

Adenovirus infections can happen at any time of the year.

What Are the Signs & Symptoms of Adenovirus Infections?

The symptoms of adenoviral infections depend on the type of adenovirus and the part of the body affected. Respiratory symptoms are most common.

Upper respiratory infections can range from mild cold symptoms to flu-like symptoms. These include:

- sore throat (pharyngitis)
- a congested, runny nose (rhinitis)
- a cough
- ear infection
- pinkeye

- fever

Adenoviruses can also cause **lower respiratory infections** such as bronchiolitis, croup, or pneumonia. Adenovirus can cause a cough that sounds like whooping cough (pertussis).

Gastroenteritis is an infection of the stomach and intestines. Symptoms include diarrhea, vomiting, belly pain, and fever.

Bladder infections: These can cause frequent peeing, burning, pain, and blood in the urine.

Eye infections:

- **Pinkeye (conjunctivitis)** is a mild inflammation of the membranes that cover the eye and inner surfaces of the eyelids. Symptoms include red eyes, discharge, tearing, and the feeling that there's something in the eye.
- **Pharyngoconjunctival fever** causes very red eyes, a sore throat, fever, runny nose, and swollen glands.
- **Keratoconjunctivitis** is a more severe eye infection that involves both the conjunctiva and cornea (the transparent front part of the eye). It causes red eyes, photophobia (sensitivity to light), blurry vision, tearing, and pain.

Nervous system infections:

- Meningitis and encephalitis can sometimes happen due to adenovirus infection. Symptoms include fever, headache, nausea and vomiting, stiff neck, and confusion.

Is Adenovirus Contagious?

Adenovirus is highly contagious. Infections are common in close-contact settings, such as childcare centers, schools, hospitals, and summer camps.

Adenovirus can spread through droplets when someone with an infection coughs or sneezes. Fecal material (poop) can spread the infection via contaminated water, dirty diapers, and poor hand washing. Outbreaks of pharyngoconjunctival fever at summer camps are linked to contaminated water in swimming pools and lakes.

A child might also pick up the virus by touching someone who has it. Adenoviruses can survive on surfaces for a long time. So they can spread on contaminated toys, towels, and other objects.

Symptoms usually start 2 days to 2 weeks after contact with adenovirus.

How Are Adenovirus Infections Diagnosed?

The symptoms of adenovirus infections are similar to many other infections. If a person has a serious infection, doctors can test respiratory or conjunctival secretions, a stool sample, or a blood or urine sample to confirm the diagnosis.

Doctors will also test for adenovirus during suspected outbreaks. (An outbreak is when many people come down with the same symptoms.)

How Are Adenovirus Infections Treated?

Most adenovirus infections get better on their own. Treatment at home includes getting plenty of rest, drinking enough liquids, and using acetaminophen to treat fevers. Babies and children with vomiting and diarrhea who can't drink enough liquids may need

treatment for dehydration.

Infants (especially newborns and premature babies), people with weak immune systems, and healthy children and adults with severe adenovirus infections may need antiviral medicine and treatment in a hospital. Other treatment, depending on the symptoms, may include intravenous fluids, oxygen, and breathing treatments.

How Long Do Adenovirus Infections Last?

Most adenovirus infections last from a few days to a week or two. Severe infections may last longer and cause lingering symptoms, such as a cough.

Can Adenovirus Infections Be Prevented?

To help prevent the spread of adenovirus infections, parents and other caregivers should:

- make sure kids and caregivers wash their hands well and often
- keep shared surfaces (such as countertops and toys) clean
- keep kids with infections out of group settings until symptoms are gone
- teach kids to sneeze and cough into shirtsleeves or tissues — not their hands

When Should I Call the Doctor?

Call your doctor if your child is sick and:

- has a high fever or one that lasts more than a few days
- has breathing problems
- is under 3 months old or has a weak immune system
- has red eyes, eye pain, or a change in vision
- has severe diarrhea, vomiting, or signs of dehydration, such as peeing less or having fewer wet diapers, a dry mouth, sunken eyes, acting tired and listless

You know your child best. If he or she seems very ill, call your doctor right away.

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