

# Measles

## The Disease

Not everyone recognizes measles as the serious disease it really is — possibly because it used to be a routine part of everyone's childhood, and also because we don't see it nearly as much as we used to. But measles can be deadly. The 10<sup>th</sup> Century Persian physician Rhazes considered measles "more to be dreaded than smallpox." Measles still kills about a million people a year around the world. Measles can also make a pregnant woman have a miscarriage or give birth prematurely.

For most children, measles means a rash and a cold, and missing a few days of school. But about 1 out of every 10 children who get measles also gets an ear infection. And up to 1 out of 20 of them gets pneumonia. About 1 child in every 1,000 who get measles will get encephalitis. (Encephalitis is an inflammation of the brain that can lead to convulsions, and can leave your child deaf or mentally retarded.) Out of every 1,000 children who get measles, 1 or 2 die from it.

Measles is caused by a virus. It spreads so easily that any child who is exposed to it and is not immune will probably get it. You can get measles from an infected person who coughs or sneezes around you or even talks to you. Before measles vaccine was available, nearly all children got measles by the time they were 15 years old. Around 500,000 cases a year were reported in the United States during the 10 years before measles vaccine, and there were probably another 3 million cases a year that were not reported. During each of these years more than 450 people died because of measles, 48,000 were hospitalized, 7,000 had seizures, and about 1,000 suffered permanent brain damage or deafness.

The first signs of measles are a fever, runny nose, and cough, which appear about 10-12 days after a child is exposed. The rash appears several days later. A child with measles is contagious from about 4 days before the rash appears to about 4 days after.

**Measles Fact:** The term "measles" probably comes from a Latin word meaning "miserable."

## Measles Immunization

Measles vaccine was licensed in 1963. As children started getting the vaccine, measles quickly began to disappear. Today we see only about a hundred cases a year.

But even though the number of measles cases each year is only a fraction of what it used to be, this doesn't mean that our children cannot get measles. In 1989 and 1990 we saw a large jump in measles cases and deaths, partly because many parents weren't getting their preschool-aged children vaccinated. In response to this outbreak, doctors and health departments stepped up their efforts to vaccinate children, and measles cases have since dropped to all-time low levels.

The measles vaccine used today is a *live, attenuated* vaccine. In other words, the virus that is used to make the vaccine is not killed, but it is weakened so that doesn't cause measles. Measles vaccine can be given by itself, but it is usually given together with mumps and rubella vaccines in a shot called MMR. [Click here to jump to the chapter about about MMR vaccine.](#)