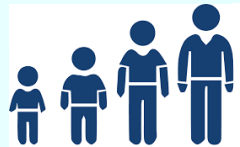


# Measles

IT ISN'T JUST A LITTLE RASH



Measles can be dangerous for all ages, especially young unvaccinated children, college students, international travelers, those with impaired immune systems and health care personnel.



## Measles Transmission

### Rubeola Virus

- **Host:** Human disease, not spread by any other animals
- **Transmission:** Large respiratory droplets; can live for up to two hours in an airspace where the infected person coughed or sneezed
- **Incubation Period:** 7-21 days (average 14 days)
- **Communicability:** Highly communicable; >90% among susceptible persons
- **Infection Period:** 4 days before to 4 days after rash onset

Sources: Centers for Disease Control (2019). Retrieved from: <https://www.cdc.gov/measles/>.  
Virginia Dept of Health (2019). Measles (Rubeola). Retrieved from:  
<http://www.vdh.virginia.gov/epidemiology/epidemiology-fact-sheets/measles-rubeola/>

# Measles Risk Factors



## WHO'S AT RISK → INCUBATION → SYMPTOMS



- Babies who are too young for vaccine (<12 months)
- Immunocompromised
- Pregnant women
- Unvaccinated

Average: **14 days**  
(range 7-21 days)

- High fever (up to 104 F)
- Runny nose
- Cough
- Red, watery eyes
- Rash (spreads from head to toe)
- Koplik spots (sometimes)



# Measles Signs & Symptoms

High fever (up to 104°F)



Red, watery eyes



Cough



Runny nose



Body rash develops

- Rash typically begins at hairline and spreads over body next 3 days
- Lasts 4-6 days then fades from the head downward
- Complete recovery from the illness generally 7-10 days from onset of the rash

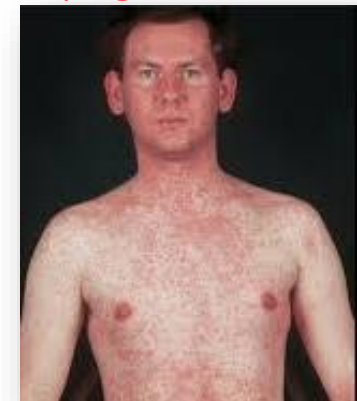
Rash begins on face



Koplik's (white) spots in mouth



Rash progresses head to toe



# Measles Complications

## Serious problems can develop:

- Diarrhea
- Ear infections
- Blindness
- Pneumonia
- Permanent brain damage
- Encephalitis (1:1000)
- Seizures
- Death (1-2:1000)

## Complications of measles more common in:

- Children < age 5
- Adults > age 20
- People with weakened immune systems can have severe complications



## During pregnancy, increased risk of:

- Premature labor
- Miscarriage & stillbirth
- Low-birth weight babies
- Maternal hepatitis & pneumonitis



# Measles Statistics



**9 out of 10**  
Susceptible people with  
close contact to the measles  
virus will develop it

## Among Measles Patients:

- 1 in 4 will be hospitalized
- 1 in 1,000 will develop encephalitis
- 1 to 2 in 1,000 will die

**95 Percent vaccination rate**  
is needed to achieve “herd immunity” or  
“community immunity”

Source: Centers for Disease Control. (2019). Retrieved from: <https://www.cdc.gov/measles/>

# Treatment

Treatment focuses on relief of symptoms as the body fights the virus.



This may include:

- Fluids
- Medications to control fever or pain
- Antibiotics to treat secondary infections
- Vitamin A supplements
- Isolation – stay home!



Virginia Dept. of Health (2019). Measles (Rubeola). Retrieved from:  
<http://www.vdh.virginia.gov/epidemiology/epidemiology-fact-sheets/measles-rubeola/>

# Measles Is Preventable with MMR

You have the power to protect yourself



According to CDC guidelines, **if you were born before 1957** you are presumed to have had measles and are therefore naturally protected against measles, mumps, rubella.

- **If you were born after 1968** and received at least one or more doses of live virus containing vaccine after the age of 1 and have written documentation of the vaccination, you are most likely immune.
- **If you were born or vaccinated prior to 1968** you likely received an inactivated (killed) measles vaccine and should be revaccinated with at least one dose of live attenuated measles vaccine. This recommendation is intended to protect those who may have received killed measles vaccine, which was available in 1963-1967 and was not effective.



**Medicare will not pay for the MMR vaccine if given in our offices**, but you if can be administered and you will be billed \$100.00.

If you have vaccine coverage under their Medicare Part D (drug coverage) plan the vaccine you may be covered if you receive MMR at a vaccinating pharmacy.

To find locations where MMR is administered in your area, consider this source: <https://vaccinefinder.org>



# Measles Titers

## Validating Measles Immunity



- MMR titers can tell if you have sufficient enough level of measles in your body to protect you. It can be ordered as panel to check for all three – measles, mumps and rubella (much more expensive) or as an individual measles test (rubeola/measles IgG).
  - If you only need the measles titer, then do not ask for the whole panel. Sometimes insurance does not cover the titers.
- These are not always covered by insurance.
  - **MEDICARE DOES NOT PAY FOR VACCINE TITERS**
  - The Quest MMR PANEL runs \$325, cash pay.
  - The LabCorp MMR PANEL runs \$253, cash pay.
  - The rubeola/measles test alone is about 1/3 of the total charge/ cost of the panel.

# Measles: What to Know - What to Do

## It's a serious viral infection.

Measles is very contagious and can be deadly.



It's still in the air 2 hours after an infected person leaves an area.



## Protect your family.

The measles vaccine is safe and effective. Get your family immunized.



## What to look for.

Measles starts with a fever, red eyes, cough and runny nose.



Young children usually get the sickest and may need to go to the hospital.



## If you think you or a family member has measles:

- 1** Call your healthcare provider right away.



- 2** Your healthcare provider will tell you how to get care without exposing others.



- 3** Stay home and don't have visitors in your home.



# Resources on Measles

- For more information on measles:
- <https://www.cdc.gov/mmwr/volumes/68/wr/mm6817e1.htm>
- <http://www.vdh.virginia.gov/epidemiology/epidemiology-fact-sheets/measles-rubeola/>
- <https://www.cdc.gov/vaccines/vpd/measles/index.html>
- <https://vaccinefinder.org/>