Measles is a very contagious and serious disease. It is also very preventable.

Measles is a viral illness that causes fever, rash, cough, runny nose, and reddened eyes. The vast majority of people who become ill with measles recover. But the virus can sometimes spread to the brain or lungs and cause severe illness or death. Babies, elderly people, and pregnant women have a higher risk of becoming severely ill from measles.

Measles is no longer naturally present (endemic) in the United States. But it can be brought into the country when people who are not vaccinated travel to and from other countries. The measles virus very easily spreads through the air through coughing and sneezing. Because the virus is so contagious, if there are clusters of people who are not vaccinated, an outbreak can easily occur.

Preventing Measles
The MMR vaccine, which is given as a shot (injection), protects against 3 different infections: measles, mumps, and rubella (German measles). It is both safe and effective. For preventing measles, 1 MMR dose works 93% of the time, and 2 doses work 97% of the time. The 3% of people who are fully vaccinated and still get measles often have a milder illness than those who were not vaccinated.

Who Should Be Vaccinated?
Currently, the US Centers for Disease Control and Prevention recommends that all children receive 2 doses of the MMR vaccine. The first dose is recommended between ages 12 and 15 months and the second dose is recommended between ages 4 and 6 years, before starting school.

Receiving the MMR vaccine is safer than becoming infected with measles. As with any vaccine, there is a small risk of an allergic reaction, which can be mild or severe. Other side effects include fever, rash, or joint pains. Pregnant women and people who have weak immune systems because of certain medical conditions should not get the MMR vaccine.

In 2011, the Institute of Medicine published a report that thoroughly studied the possible harmful effects of 8 major vaccines, including the MMR vaccine. They concluded that there was no evidence to suggest a causal relationship between the MMR vaccine and autism and that serious harmful effects from the MMR vaccine were rare. In 2014, the American Academy of Pediatrics published a review article of 67 studies that found strong evidence that the MMR vaccine is not associated with autism.

Risk of Measles Infection
Most Americans are considered protected against, or immune to, measles, either because they were vaccinated or because they had measles before. You are considered protected against measles if:
- You have immunization records stating that you have received 2 doses of the MMR vaccine at any point in your life.
- You have had a blood test confirming you have immunity against measles at any point in your life.
- You were born before 1957.
- If any of the above is true for you, you do not need to receive an MMR booster vaccine. You also do not need to go to the doctor for a blood test to confirm that you are immune to measles.
- If you cannot find any immunization or blood test records, you can ask your doctor for a blood test to check if you are immune to measles. If the test shows that you are not immune, you should be vaccinated. If you received only 1 dose of the MMR vaccine, you should ask your doctor whether you should have a booster vaccination.

FOR MORE INFORMATION
- Centers for Disease Control and Prevention 
  www.cdc.gov/measles/index.html
- Institute of Medicine 
  www.iom.edu/Reports/2011/Adverse-Effects-of-Vaccines 
  -Evidence-and-Causality.aspx
- American Academy of Pediatrics 
  pediatrics.aappublications.org/content/134/2/325.long#T1

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