There are *two* options for protecting your child against **measles, mumps, rubella,** and **varicella.**

Know the facts before you choose.

Know the facts

Why Vaccinate Against These Diseases?

Thanks to vaccines that protect against measles, mumps, rubella (German measles) and varicella (chickenpox), most children never have to suffer the misery of these diseases or their potentially serious complications.

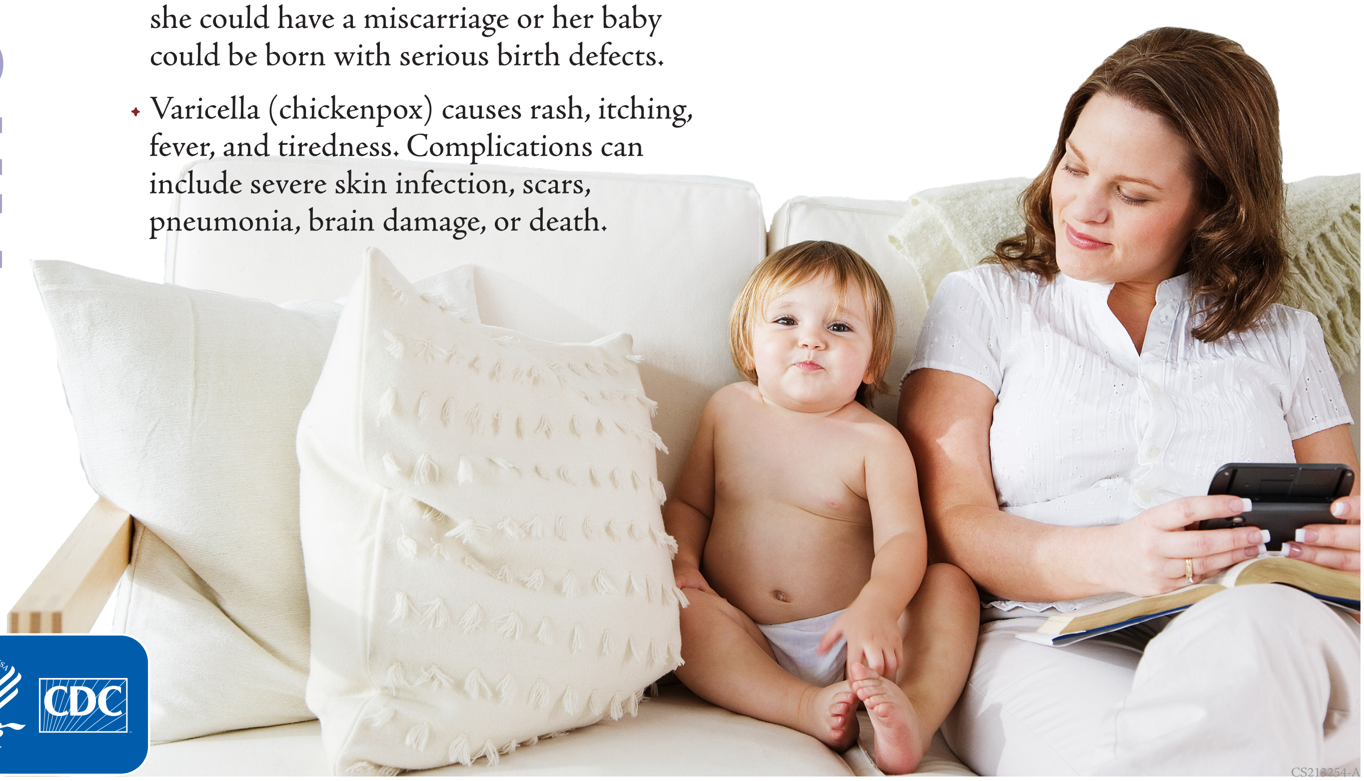
- Measles causes rash, cough, runny nose, eye irritation, and fever. Complications can include ear infection, pneumonia, seizures (jerking or staring), brain damage, and death.
- Mumps causes fever, headache, and swollen glands. Complications can include deafness, meningitis (infection of the brain and spinal cord covering), painful swelling of the testicles or ovaries, and, rarely, death.
- Rubella (German measles) causes rash, mild fever, and arthritis (mostly in women). If a woman gets rubella while she is pregnant, she could have a miscarriage or her baby could be born with serious birth defects.
- Varicella (chickenpox) causes rash, itching, fever, and tiredness. Complications can include severe skin infection, scars, pneumonia, brain damage, or death.

Options for Protecting Your Child

For the best protection against measles, mumps, rubella, and varicella, children need to be vaccinated twice: once when they are 12–15 months old, and again when they are 4–6 years old. There are two options for protecting children who are 12 months–12 years old against these diseases:

- Getting two shots: the measles, mumps, and rubella (MMR) vaccine **and** the varicella vaccine
- Getting one shot: the measles, mumps, rubella, and varicella (MMRV) vaccine

Your child's doctor can help you choose between getting the MMR and varicella vaccines or the single MMRV vaccine. There are different things to consider when choosing which option to use for your child's first and second vaccinations. ▶



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Choosing an Option for Your Child's First Vaccination

For the first dose of measles, mumps, rubella, and varicella vaccines given at ages 12–47 months, either MMR and varicella vaccines or MMRV vaccine can be used. There are both benefits and risks that you should know about when choosing which of these options to use for your child.

Comparing MMR and Varicella Vaccines *and* MMRV Vaccine

	MMR and Varicella Vaccines (Administered at the same doctor visit)	**MMRV Vaccine**
Protection against measles, mumps, rubella and varicella	Provides the same protection against the four diseases as the MMRV vaccine	Provides the same protection against the four diseases as the MMR and varicella vaccines
Number of shots	Two shots needed at the same doctor visit to provide protection against measles, mumps, rubella, and varicella	One shot needed to provide protection against measles, mumps, rubella, and varicella
Fever	Fewer children have fevers of 102°F or higher within 42 days of being vaccinated (about 15 out of every 100 children vaccinated; the highest risk for fever is during 5–12 days after vaccination)	More children have fevers of 102°F or higher within 42 days of being vaccinated (about 22 out of every 100 children vaccinated; the highest risk for fever is during 5–12 days after vaccination)
Febrile seizures (Seizures caused by fever)	Fewer children have febrile seizures during the 5–12 days after vaccination (about 4 out of every 10,000 children vaccinated)	More children have febrile seizures during the 5–12 days after vaccination (about 8 out of every 10,000 children vaccinated)

For the first dose of measles, mumps, rubella, and varicella vaccines given at ages 48 months and older, using the MMRV vaccine is usually preferred over using the MMR and varicella vaccines because it requires one less shot to provide similar protection with no known additional risks of side effects.

Understanding the Risk of Febrile Seizures After the First Vaccination at Ages 12–47 Months

The MMR vaccine has been associated with a very small risk of febrile seizure as a side effect. Two recent studies indicate that for every 10,000 children who get the MMR and varicella vaccines for their first vaccinations when they are 12–23 months old, about 4 will have a febrile seizure during the 5–12 days following vaccination.

These studies have also shown that children who get the MMRV vaccine for their first vaccinations when they are 12–23 months old are about twice as likely to have a febrile seizure during the 5–12 days following vaccination compared with those who get the MMR and varicella vaccines at the same doctor visit. This means that for every 10,000 children in this age range who get the MMRV vaccine for their first vaccination, about 8 will have a febrile seizure during the 5–12 days following vaccination. However, it's important to remember that the overall risk of febrile seizures is very low with both options.

Studies of febrile seizures after vaccination with a first dose of MMRV vaccine have not been done in older children, but experts agree that this increased risk of febrile seizures during the 5–12 days after the first vaccination with MMRV vaccine likely also occurs in children aged 24–47 months.

Understanding Febrile Seizures

"Febrile" means "relating to a fever." In some children, having a fever—even fever that comes with typical childhood illnesses like ear infections or the common cold—can bring on a seizure. Measles was a common cause of febrile seizures in the United States before the disease became rare due to the success of the vaccination program.

During a febrile seizure, a child often has spasms or jerking movements and may lose consciousness. Febrile seizures usually last only a minute or two. ▶

They are most common with fevers that get up to 102°F (38.9°C) or higher, but can also occur at lower temperatures or when a high fever is going down.

Febrile seizures often result in a visit to an emergency room for the child and can be very frightening for parents and caregivers. However, most children who have febrile seizures recover quickly and have no lasting effects.

Children at Higher Risk for Febrile Seizures

Children who are at a higher risk for having febrile seizures include those who:

- Have had a febrile seizure in the past
- Have an immediate family member (a brother, sister, or parent) who has epilepsy or who has had a febrile seizure

Children with a personal or family history of seizures should usually be given MMR and varicella vaccines instead of the MMRV vaccine for both their first and second vaccinations. Be sure to tell your child's doctor if your child has a personal or family history of seizures.

Choosing an Option for Your Child's Second Vaccination

For the best protection against measles, mumps, rubella, and varicella, a second dose of vaccine is recommended for your child at age 4–6 years.

Studies do not suggest that children who are 4–6 years old and receive the MMRV vaccine have an increased risk of febrile seizures after vaccination when compared with those who receive the MMR and varicella vaccines at the same doctor visit. In addition, the second dose of MMRV vaccine is less likely to cause fever than the first dose.

For the second dose given at any age (15–12 years), use of the MMRV vaccine is usually preferred over using the MMR and varicella vaccines because it requires one less shot to provide similar protection with no known additional risks of side effects.

For more information on vaccines, ask your child's healthcare provider or call **800-CDC-INFO** *(800-232-4636)*

www.cdc.gov/vaccines

This document can be found on the CDC website at: http://www.cdc.gov/vaccines/vpd-vac/combo-vaccines/mmrv/vacopt-factsheet-parent.pdf