

12-year study confirms overall safety of measles vaccines

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A 12-year study of two measles-containing vaccines, published today in *Pediatrics*, found that seven main adverse outcomes were unlikely after either vaccine.

The study, conducted by the Kaiser Permanente Vaccine Study Center, included children aged 12 to 23 months from January 2000 through June 2012 who received measles-mumps-rubella-varicella (MMRV) or separately administered, same-day measles-mumps-rubella and varicella (MMR + V) vaccines. A total of 123,200 MMRV doses and 584,987 MMR + V doses were evaluated.

Comparing MMRV with MMR + V found no increased risk of seven main neurological, blood or immune system disorders (immune thrombocytopenia purpura, anaphylaxis, ataxia, arthritis, meningitis/encephalitis, acute disseminated encephalomyelitis, and Kawasaki disease). No new [safety](#) concerns were identified after either vaccine, and most outcomes studied were unlikely after either vaccine.

"This study did not identify any new safety concerns comparing MMRV with MMR + V or after either the MMRV or the MMR + V vaccine," said

lead author Nicola P. Klein, MD, PhD, co-director of the Vaccine Study Center. "In fact, there were few or zero events for several outcomes following vaccination. These findings indicate that even if an increased risk for these outcomes exists, the risk is low and rare. This should reassure parents that these outcomes are unlikely after either vaccine."

The study also confirmed the findings from previous studies that MMRV and MMR + V are associated with fever and febrile seizure 7 to 10 days after vaccination among one-year-old children, and that MMRV versus MMR + V is associated with an increased risk of seizures during that interval. While [febrile seizures](#) are the most common neurologic adverse events following immunization with measles-containing vaccines, the risk is small—less than one febrile seizure per 1,000 injections. Other previous studies have not found any increased risk for fever or febrile seizures following either vaccine among 4- to 6-year-old children.

"This level of safety monitoring for vaccines can give the public confidence that [vaccine](#) surveillance is ongoing and that if a safety problem existed, it would be detected," said Dr. Klein. "Our findings offer reassurance that adverse outcomes of measles-containing vaccines are extremely rare and unlikely, and that parents of one-year-old children can choose MMR + V instead of MMRV vaccines to reduce the low risk of fever and febrile seizures."

Provided by Kaiser Permanente

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