

Childhood vaccinations rarely spur seizures, study finds

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(HealthDay)—Certain vaccines can trigger fever-related seizures in young children, but the risk is so low that pediatricians might see one case every five to 10 years, a new study estimates.

It has long been known that some vaccines carry a small seizure risk. But the researchers said the new report offers some hard numbers.

And it suggests that even when babies and toddlers get three vaccines at once, they only develop fever-related seizures at a rate of 30 per 100,000—at most.

The findings should be "reassuring" to parents, said lead researcher Dr. Jonathan Duffy, of the U.S. Centers for Disease Control and Prevention.

"Looking at the big picture, the benefits of vaccination are much greater than the risk of febrile [fever-related] seizures," Duffy said.

Up to 5 percent of young children will have a fever-

related seizure at some point, according to the CDC. It usually happens when they have the flu, a cold or other infection, the agency said.

But while the seizures are scary for parents, Duffy said, they do not cause lasting harm.

According to Dr. Mark Sawyer, a member of the American Academy of Pediatrics Committee on Infectious Diseases, "This study is an important contribution to our understanding of how common—or how rare—this [vaccine](#) side effect is."

Sawyer wrote an editorial accompanying the study, which was published online June 6 in the journal *Pediatrics*.

He said it's common for parents to worry about the safety of giving multiple vaccines on the same day.

The new findings do suggest that the risk of fever-related seizure is higher when certain vaccines are given together. "But it's still quite small," Sawyer said.

For the study, Duffy's team combed through a health care database with information on nearly 10 million Americans. The investigators focused on 333 cases of fever-related seizures among babies and toddlers aged 6 months to 23 months.

Overall, the study found, a child's risk of fever-related seizure was no greater than normal after the [flu shot](#) or the DTaP vaccine for diphtheria, tetanus and whooping cough.

There was, however, a small excess risk linked to the pneumococcal vaccine, the findings showed. The risk increased further when the flu shot was given with the pneumococcal vaccine or DTaP—or both.

When all three are given, the CDC estimated, [seizures](#) may happen at a rate of up to 30 per

100,000 children.

Sawyer put it another way: Over five to 10 years, the average pediatrician would see one case of fever-related seizure connected to the vaccine trio.

"The total risk is still very small," Duffy agreed.

The CDC recommends that the DTaP and pneumococcal vaccines be given on the same day. The flu shot is seasonal, so it may be given alone, Sawyer pointed out. But if the timing is right, he said, it is given on a day when a child is getting other routine vaccinations.

Sawyer acknowledged that if there is no extra risk of seizure when the flu shot is given alone, some parents may want the vaccine on a separate day.

"But we know that if we don't give simultaneous vaccinations, some kids always fall through the cracks," Sawyer said.

Parents get busy, children get sick and appointments get canceled or delayed, he noted. That's a problem even if a child eventually catches up on the recommended vaccinations, according to Sawyer.

"When you space out vaccinations," he said, "your child is at risk of infection during that time."

Those infections can come with complications, including fever-induced seizure. "So if you want to avoid febrile [fever-related] seizure," Sawyer said, "delaying vaccinations is not the way to do it."

More information: The CDC has more on [vaccines and febrile seizures](#).

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