Get your flu shot: It might shield you from severe COVID

November 2 2020, by Alan Mozes Healthday Reporter

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(HealthDay)—The coronavirus and the flu are two entirely different viruses. But a new study suggests those who get a flu vaccine face a considerably lower risk for being hospitalized if and when they get

COVID-19.

And the flu vaccine also appears to significantly reduce a COVID-19 patient's risk for ending up in an intensive care unit (ICU), researchers say.

The findings are based on an analysis of electronic health records for 2,000 COVID-19 patients. All had tested positive for the virus at some point between this past March and August. And just over 10% of the patients had previously been vaccinated for the flu.

"The flu and COVID-19 are indeed different disease processes caused by different viruses," stressed study author Dr. Ming-Jim Yang. "Although some of the symptoms may overlap between the two diseases, they potentially have different short-term and long-term consequences."

It's also the case that "COVID-19 still has a much higher mortality [rate] than the flu," Yang noted. And long-term lung, heart and brain problems seen among surviving COVID-19 patients "do not seem to happen with the flu," he added.

Nevertheless, "our team looked at patients who tested positive for COVID-19 and saw that patients who received the influenza vaccine within the last year were less likely to be hospitalized and be admitted to the ICU," Yang said.

How much less?

"COVID patients who had *not* received a flu vaccine within the last year had 2.4 times greater odds of being hospitalized and 3.3 times greater chance of being transferred to the ICU," said Yang, a third-year resident in family medicine in the department of community health and family medicine at the University of Florida in Gainesville.

As to how a vaccine for an entirely different virus might offer such protection, Yang said the jury is still out. Also, the study did not prove that a flu vaccine actually caused the risk of severe COVID-19 to drop, just that there was an association.

"Unfortunately, we do not know why the flu vaccine would have this beneficial side effect," he said. "Our study did not look at this specifically. [But] if one looks at the available scientific studies, we can guess that the flu vaccine might increase natural killer cell activity, a type of immune cell that has been shown to target cancer and cells infected by viruses."

The flu vaccine may also stimulate a patient's immune system to step up and fight off COVID-19 more quickly and rigorously than otherwise, Yang added.

That point was echoed by Dr. Michael Niederman, associate division chief and clinical director of pulmonary and critical care at NewYork-Presbyterian/Weill Cornell Medical Center, in New York City.

"Flu shots can stimulate specific antiviral immunity [to the flu]," he noted, "as well as nonspecific 'innate immunity.' It's that latter effect that might end up conferring added protection against the most serious outcomes among COVID patients," Niederman said.

It's also the case that just avoiding getting the flu—by means of a flu shot—can help preserve a patient's immune system readiness, said Chunhuei Chi, director of Oregon State University's Center for Global Health.

"One thing we do know is that flu shots are effective in preventing flu," Chi said. "And when a person is infected with the flu, her/his immune system will be weakened. Under such conditions, the person is more

vulnerable to infection with COVID-19 and, if infected, [outcomes] tend to be more serious."

Chi also noted that, "on average, those who get flu shots tend to be people who are more cautious and care about their own health. These are the same people who are more likely to [adopt] a higher level of safety-hygiene practices during the pandemic," which could mean that their future COVID-19 exposure might be to a "lower density of virus."

Niederman broadly agreed, suggesting that those who get vaccinated against the flu are already likely at lower risk for getting COVID-19.

People who get a flu shot "are also the same people who are likely to follow other preventive care advice, such as wearing masks and social distancing. It is the latter that prevents COVID, not the flu shot itself," Niederman said.

Whatever the explanation, the latest finding seems to offer yet another incentive to get a flu shot.

Yang said, "The fact is that the benefit seems to exist. More studies will be needed to look at what the mechanism behind the benefit is."

He and his colleagues reported their findings online Oct. 29 in the *Journal of the American Board of Family Medicine*.

  More information: There's more on the overall benefits of the flu vaccine at the U.S. Centers for Disease Control and Prevention.

Citation: Get your flu shot: It might shield you from severe COVID (2020, November 2)