### Here's Why Seasonal Flu Vaccines Only Last a Few Months

Getting a flu shot this fall is vital in fighting seasonal influenza and helping to avoid a 'twindemic' of flu and COVID-19 this winter. Getty Images

- With the COVID-19 pandemic already straining healthcare centers,
  this year it's more important than ever to get your annual flu shot.
- The flu virus changes yearly as multiple strains spread throughout the community and the virus adapts itself for survival.
- It takes between 3 and 4 weeks for someone to develop immunity against the predicted strains of influenza after getting the flu shot.

The current pandemic has overwhelmed us with concerns about COVID-19, but there's a disease that routinely causes tens of thousands

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of deaths.

It affects millions of Americans every year, and it's called influenza.

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While vaccination rates are relatively high

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in the United States overall, the number of people getting their annual flu shot falls far below

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other vaccination rates.

One reason is that people have to get them every year, unlike vaccines for measles or mumps that require only a few doses for a lifetime.

So why doesn't the vaccine protect us long term?

### Influenza changes every year

Dr. Theodore Strange, associate chair of medicine at Staten Island University Hospital in New York, explained that the flu virus changes yearly as multiple strains spread throughout the community and the virus adapts itself for survival.

"That is why no long-term immunity," said Strange. "It essentially 'changes its coat' — H1N1, H2N3, and so on."

He emphasized that the flu vaccination program typically needs to start early to capture as many people as possible. It takes between 3 and 4 weeks for someone to develop immunity against the strains of influenza predicted in a given year.

Dr. Len Horovitz, a pulmonary specialist at Lenox Hill Hospital in New York, cautioned that "antibody responses for seasonal vaccines, like flu vaccine, which change every year, typically do fall off after 3 to 6 months." That's why the timing of the flu vaccine is important.

Horovitz pointed out that while the virus mutates, that's not the only reason you need an annual vaccination.

"There are mutations of the coronavirus as well, [but] it's not necessarily because of that that you need to have an annual vaccine," said Horovitz. "It just may be that the antibody response doesn't last more than a year, and so a re-vaccination is important."

#### Flu season and COVID-19

According to the most recent figures from the Centers for Disease Control and Prevention (CDC)

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, influenza has resulted in up to 45 million illnesses, between 140,000 and 810,000 hospitalizations, and between 12,000 and 61,000 deaths every year since 2010.

However, this year is different. The possibility of a bad flu season combined with the COVID-19 pandemic could bring our healthcare system to the point of failure.

"Thirty to forty thousand people a year die of influenza; you complicate hospitalizations from influenza with any kind of surge in the coronavirus and you've overwhelmed the hospital system, which is something we worried about back in the spring with coronavirus," Horovitz told [name removed].

## Who should and shouldn't get a flu shot

The CDC specifies

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exactly who should get a flu shot this fall, and different flu shots are approved for people of different ages. It's critical that everyone receive the vaccine that's appropriate for their age.

- Inactivated influenza vaccines (IIV) are approved for those as young as 6 months of age.
- Recombinant influenza vaccines (RIV) are approved for people 18 years and older.
- Adjuvanted and high-dose inactivated vaccines are approved for people 65 and older.

There are instances when the vaccination isn't recommended.

According to the CDC

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, children younger than 6 months and people allergic to ingredients used in the vaccine shouldn't be vaccinated.

Also, if you have ever experienced Guillain-Barré syndrome, you should speak with your doctor before getting the shot.

### Getting vaccinated this year

The CDC warns

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that how and where people get a flu vaccine this year may need to change due to COVID-19.

The CDC says it's working with healthcare providers and state and local health departments to "develop contingency plans on how to vaccinate people against flu without increasing their risk of exposure to respiratory germs, like the virus that causes COVID-19."

It emphasizes that the places that normally provide flu vaccines, like workplaces, may not do so this year because of the challenges presented by physical distancing.

However, the VaccineFinder website can help you find information on vaccine locations.

# Will the flu vaccine react with a possible COVID-19 vaccine?

Jeremy Levin, PhD, chair of the Biotechnology Innovation Organization and CEO of OVID Therapeutics, understands that there may be concerns about

getting the flu vaccine and then receiving a shot to protect against COVID-19 when it becomes available.

"We don't know yet which vaccine will be safely given with any other vaccine," said Levin. "It's my belief that the FDA [Food and Drug Administration] will use excellent judgment to ensure that we are given a safe and effective vaccine, based on the analysis of data."

Strange agreed: "There has been no data to suggest that giving both would increase risk to immunity for the other. Physicians often give the flu vaccine with other vaccines. For example, pneumococcal vaccine [for pneumonia], and so forth."

### The bottom line

Influenza can potentially pose a severe risk to our health, and receiving a yearly flu shot in the fall is one of the best ways to protect ourselves.

Unlike some other vaccines that give lifetime immunity, the flu vaccine must be taken routinely.

Experts say this is because, unlike some other diseases, flu viruses change enough every year that the previous year's vaccine no longer provides immunity.

They add that the antibody response against influenza can naturally fade after a year, which is another reason it's important to be vaccinated before the flu season begins.