

## Although flu viruses are a moving target, this season's vaccine still offers protection

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While in baseball it's three strikes and you're out, it's not quite the same with flu vaccines. Though one of the targeted flu strains is slightly mismatched, this season's flu shot offers a great deal of protection. A Loyola Medicine flu expert says the current flu vaccine is still in the game and will keep people well and on the playing field.

The trivalent vaccine is the most commonly used vaccine and targets three [flu](#) virus strains: two flu A strains – H3N2 and H1N1 – and one flu B strain. There is also a quadrivalent [flu shot](#) that targets the three strains in the trivalent but also protects against a second flu B strain.

"The current flu shot is not a loser and should not be benched as ineffective," said Jorge Parada, MD, MPH, FACP, FIDSA, FSHEA, hospital epidemiologist and medical director of the Infection Control program at Loyola University Health System. "While there was a mismatch due to a mutation in the H3N2 strain, there are actually two H3N2 strains in circulation, complicating the interpretation of the accuracy of the vaccine."

The Centers for Disease Control (CDC) reports that flu activity is "high" or "widespread" in 43 states and call it an epidemic this season. Most of the reported flu cases are caused by the H3N2 strain.

"Nearly one-third of circulating H3N2 viruses matches the strain found in the current vaccine, meaning the vaccine is doing its job," Parada said. "One hundred percent of the H1N1 circulating strain matches that in the

current vaccine, earning a home run for those keeping score." However, to date, only a small portion of the flu cases reported to date have been identified as H1N1.

Two flu B strains are currently in circulation. "The dominant one accounts for 70 percent of flu B out there and it matches the strain in the trivalent vaccine, making it very effective. The remaining flu B strain in circulation is a match to the second flu B strain found in the quadrivalent vaccine, making it a 100 percent match for flu B this season," Parada said. "The B strain regularly appears in January and February and the current [flu vaccine](#) will help build immunity," he said. The CDC reports that February often is a very active month for the flu.

The real losers this flu season? Those who are not vaccinated.

"The flu vaccine is readily available and affordable, even free in some areas. If you haven't gotten your flu shot yet, get it now because the season lasts until late spring," said Parada, professor of Medicine at Loyola University Chicago Stritch School of Medicine. "Not being vaccinated greatly increases your chances of becoming ill not once but several times because every flu season there are multiple strains of flu circulating. Plus, every time you catch the flu you increase the chance that you may pass it along to a family member, friend or colleague, amplifying the problem."

He advised everyone to wash their hands thoroughly with soap and water or hand sanitizer to minimize risk and to stay away from ill individuals. Dr. Parada and Loyola staffers have seen a spike in [flu cases](#) at Loyola University Medical Center and Loyola's many clinics.

For the sixth year in a row, Loyola has required that all employees, students, volunteers and even vendors receive the seasonal flu vaccination. "Firefighters must wear fireproof gear and hospital staff

need vaccinations to protect themselves and others from infectious diseases," said Parada, who oversees the campaign at Loyola.

Loyola is an academic medical center and leads in the treatment of complex health problems. "The biggest danger of the flu is that it worsens other medical conditions. It can exacerbate congestive heart failure and many other chronic illnesses," Parada said.

"Also, the flu can decrease the body's ability to fight other infections that one might get while you have the flu, like pneumonia," he said. Pneumonia is a leading cause of death among the very old, very young and the chronically ill.

Dr. Parada urged everyone to get the flu [vaccine](#).

"To those who think there is no point because it is a mismatch, I answer that it is only a partial mismatch and it still offers protection for the multiple [flu strains](#) circulating out there. To those who point to the mismatch as the cause for this year's bad [flu season](#), I answer then that only reinforces how important it is to get vaccinated," said Dr. Parada, an infection control specialist with more than 25 years of experience. "First, imagine how much worse the flu would be if it was a complete mismatch. Second, most years there is no mismatch and high levels of vaccination can help reduce the impact of the flu on everyone."

Provided by Loyola University Health System

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