

New research finds flu shot effective regardless of circulating flu strain

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New research out of St. Michael's Hospital has found that despite popular belief, the flu shot is effective in preventing the flu, even if the virus going around does not match the vaccine.

"It's quite common for people to say they are not going to get the [flu shot](#) this year because they've heard it does not match the strain of flu going around," said Dr. Andrea Tricco, the lead author of the paper and a scientist at the Li Ka Shing Knowledge Institute of St. Michael's Hospital. "However, we've found that individuals will be protected regardless of whether the flu strain is a match or not."

The review of the literature analyzed more than 40 years of data, from 1971 to 2011, and included 47 influenza seasons and almost 95,000 healthy people.

Dr. Tricco and colleagues were particularly interested in flu seasons when the flu vaccines were not matched well to circulating strains. They wanted to understand whether the flu vaccines would still be effective when the strains were not a match.

Vaccines work by giving the body an inactive, or non-infective, form of the [flu virus](#) so that the body can produce antibodies. When an individual comes into contact with the virus in the future, the body can use the [natural antibodies](#) it has created to fight it off.

The study looked at the two most popular vaccine formulations in Canada – Trivalent inactive vaccine for adults and live-attenuated [influenza vaccine](#) for children. They found that both vaccines provided significant protection against matched (ranging from 65 per cent to 83 per cent effectiveness) and mismatched (ranging from 52 per cent to 54 per cent effectiveness) flu strains.

"Looking at matches and mismatches can be a

difficult process because it's not a yes or no variable," Dr. Tricco said. "Often we're looking at the degree of match between a [flu strain](#) and what's included in a vaccine because strains drift from year to year."

Dr. Tricco said that the study's results are mainly applicable to the seasonal flu in otherwise healthy children and adults.

Provided by St. Michael's Hospital

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