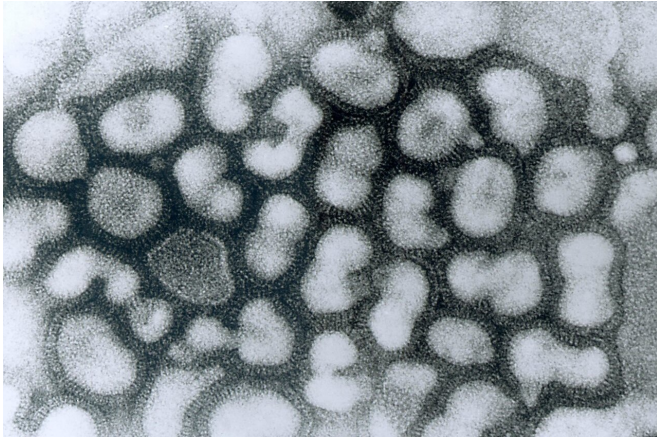


Influenza vaccination of children cuts hospitalization in half

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Transmission electron micrograph of influenza A virus, late passage. Credit: CDC

Fully vaccinating children reduced the risk of hospitalization for complications associated with influenza by 54%, according to a new study by Ben-Gurion University of the Negev (BGU) and University of Michigan researchers.

The research, published in the December, 2019 print journal *Clinical Infectious Disease*, is one of the few studies worldwide that has tested the effectiveness of childhood vaccination against [influenza](#) and risk of hospitalization due to the influenza complications.

The study was led by Dr. Hannah Segaloff, an epidemiologist at the School of Public Health, University of Michigan and Prof. Mark Katz, M.D., of BGU's Department of Health Management, Faculty of Health Sciences and a senior researcher at the Clalit Institute of General Research. Prof. Katz also teaches in BGU's Medical School for International Health.

The retrospective study reviewed the vaccination data of 3,746 hospitalizations of children ages six

months to 8 years old at six hospitals in Israel. They were tested for influenza over three winter seasons 2015-16, 2016-17 and 2017-18.

The findings reveal that the flu vaccine reduced hospitalizations associated with the flu by more than half. They also validate guidelines in the United States and Israel that recommend two vaccine doses for children up to age 8 who have never been vaccinated or who previously received one dose.

"Children vaccinated according to government guidelines are much better protected from influenza than those who only receive one vaccine," says Dr. Segaloff. "Over half of our study population had underlying conditions that may put them at high risk for severe influenza-related complications, so preventing influenza in this group is critically important.

"Our results also showed that the vaccine was effective in three different seasons with different circulating viruses, reinforcing the importance of getting an influenza [vaccine](#) every year no matter what virus strain is circulating."

Co-author Prof. Katz adds, "Young children are at high risk of hospitalization due to influenza complications. Children with underlying illnesses such as asthma and heart disease have an even greater risk of getting the complications. It is important to prevent influenza infections in these populations."

The findings also support [health](#) organizations' recommendations, including the Israel Ministry of Health, to vaccinate children against influenza every year, preferably before the onset of winter and especially during early childhood. Children under age five are defined as having a high risk of influenza complications.

"This study mirrors a previous study conducted at

Clalit Institute where we found that [flu vaccine](#) reduces 40% risk of hospitalizations in pregnant women," says Prof. Ran Balicer, a member of the BGU School of Public Health and director of the Clalit Research Institute. "It found that vaccination is the most effective way to prevent both the flu and hospitalization."

The researchers hope parents make an informed decision about the importance of vaccinating their [children](#) and that their research will increase vaccination rates among the general public.

Provided by American Associates, Ben-Gurion University of the Negev

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