Improved Safer Nasal Spray Flu Vaccines

A novel live attenuated influenza virus nasal vaccine safe enough for use by young children and asthmatics.

Problem Solved by this Technology

Young children, pregnant women, and persons with compromised immune systems are at high risk for complications arising from an influenza infection. These people are currently served with sub-dermal, or nasal applications of inactivated vaccines, which are less effective, but considered to be safer than live attenuated influenza virus (LAIV). However, studies suggest that nasal application of LAIV are most effective at preventing influenza because it more closely mimics the natural introduction of the flu virus, thereby triggering a more effective immune response.

Applications

Researchers at the University of Rochester have developed a novel LAIV that is temperature sensitive. This virus has limited replication at normal human body temperatures, which should limit its ability to reproduce in lung tissue, seriously reducing the risk to asthmatics and young children. It has been shown to improve safety in a mouse model of influenza challenge, and is hypothesized to be safe enough to use in all persons.

Publication


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Intellectual Property Status


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