

Egg Allergy and Influenza Vaccination

People with egg allergy may be safely vaccinated with the influenza (flu) vaccine. Vaccination is an important method to reduce the risk of developing infectious diseases, including influenza, which is a major cause of illness and deaths worldwide. Immunity occurs after the vaccine stimulates a person's immune system, to protect them from future infections. Notification and hospitalisation rates for influenza infections are highest in children up to five years of age, which is also the age group most affected by egg allergy.

Influenza vaccines and egg protein

The current influenza vaccines distributed in Australia and New Zealand are derived from influenza virus, and grown in hen's egg. Once purified, the amount of residual egg ovalbumin present in each vaccine dose is usually less than 1 microgram. This is substantially less than the amount of egg protein that is likely to trigger reactions in people with egg allergy, which is estimated at 130 micrograms taken orally.

Safety of influenza vaccines in individuals with egg allergy

Several published reviews, guidelines and reports suggest no increased risk of anaphylaxis associated with influenza vaccination of people with egg-allergy. A 2012 review of published studies included 4172 egg-allergic patients (513 with a history of a severe egg allergy) with no cases of anaphylaxis occurring after receiving an inactivated influenza vaccine. Further studies have confirmed these results.

Severe allergic reactions to vaccination are very rare

The risk of a severe allergic reaction (anaphylaxis) to inactivated influenza vaccine is similar to other vaccines, and estimated at 1.35 per million doses. If anaphylaxis is suspected, a review by an allergy or vaccine specialist is recommended to confirm the diagnosis and provide advice on vaccination.

Minor short lived side effects from vaccination are common

Injection site reactions (such as local pain, redness and swelling), fever, muscle aches, irritability or worsened eczema a day after vaccination are common side effects. They indicate the start of an immune response, not vaccine allergy.

Recommendations

There is no evidence that having egg allergy increases the risk of having an allergic reaction to the currently available influenza vaccines. Therefore, people with an egg allergy can receive an influenza vaccine in a primary care facility, such as a GP clinic. As for all vaccinations, it is recommended that clinic staff are able to recognise and treat suspected anaphylaxis, which includes administration of adrenaline (epinephrine). Observations should occur for 15-20 minutes after vaccination.

Further advice and variance from product information

This advice is consistent with Australian and New Zealand immunisation guidelines and has been adapted from ASCIA Guidelines for vaccination of the egg-allergic individual, which are available on the ASCIA website www.allergy.org.au/hp/papers/vaccination-of-the-egg-allergic-individual

This advice varies to the vaccine product information, which indicates that egg allergy is a contraindication to influenza vaccination and lists egg allergy as a special warning or precaution.

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