

Keywords

egg allergy; egg allergic children; heated allergens; tolerance; tolerance to raw egg; oral; immunotherapy

Title: Immunological Changes when Egg Allergic Kids Eat Baked Egg

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Summary

Hen's egg allergy is one of the most common Immunoglobulin E (IgE) mediated food allergies in children, and carries a significant burden in terms of cost to the health system and the quality of life of families and individuals with egg allergy. It affects almost one in ten Australian children. The allergy is usually outgrown in early childhood, however, recent evidence suggests an increasing persistence of egg allergies with only 50% resolution of allergy to raw egg by ten years of age.

Until recently, children with egg allergy were advised to avoid all forms of dietary egg exposure based on the assumption that consumption of egg would prolong their allergy. Recent publications indicate that up to 70% of children with egg allergy can eat egg baked in a cake or muffin without apparent reaction. These publications have prompted some allergy clinics to encourage the introduction of baked egg in the diets of children with raw egg allergy under the premise that this may hasten development of tolerance to raw egg.

The project studied 43 children with allergy to raw egg and tolerance to baked egg. The effects of regular consumption of baked egg (intervention group) were compared to the standard treatment of an egg free diet (control group) on clinical tolerance to raw egg and immune markers of tolerance. This randomised controlled trial aimed to compare clinical and immunological outcomes after six months consumption of baked egg with an egg free diet in 1-5 year old baked egg tolerant, but raw egg allergic children.

The results suggest that baked egg tolerant 1-5 year old egg allergic children are evolving tolerance to raw egg, which may not be influenced by short-term regular inclusion of baked egg in the diet. Further trials of larger sample size, including children of different age groups are required.