

Egg Allergy – the facts

Hens' egg allergy is relatively common in children under five. The child may also have eczema as well as other food allergies besides egg allergy. Some children suffer chronic eczema without realising that egg is causing or exacerbating the problem.

About 50 per cent of children outgrow their egg allergy, but in the rest, it is likely to persist. Where it is outgrown, this is likely to happen in the first 5–7 years of life.



Severe egg allergy

The symptoms of severe egg allergy normally begin within seconds or minutes of ingestion, but occasionally within the hour. Tiny amounts of egg may cause a reaction and extreme symptoms may include swelling of the airways, severe asthma or even – in rare cases – anaphylactic shock. Some very sensitive people may even suffer breathing problems when they inhale the fumes of cooked eggs, and skin contact with egg may result in a rash.

Any parent who is worried about the severity of their child's egg allergy should seek their GP's advice. Severe cases should be referred to an NHS allergy clinic. Your GP or consultant will make a diagnosis, based on history of previous reactions. The allergy can be confirmed by blood tests to measure the allergy antibody, and/or skin prick tests. People at risk of severe reactions are normally prescribed pre-loaded adrenaline (in Anapen, EpiPen or Jext form).

Some egg-allergic children can eat well-cooked egg (in cake, for example) but not raw or lightly cooked egg. These are the ones who are more likely to grow out of egg allergy. Others are allergic even to well-cooked egg and these are the ones for whom egg allergy is more likely to be severe and maybe lifelong.

Children who have egg allergy, particularly those whose egg allergy lasts for more than a year, have a high risk of developing allergy to inhalants and, therefore, developing allergic rhinitis (hayfever), or asthma, or both.

Dietary management of egg allergy

Foods that contain egg may include any of the following: cakes, pastries, desserts, meat products, salad dressings, mousses, glazes, pasta, noodles, battered and breadcrumbed foods, ice cream, chocolates and sweets. This list is not exhaustive and food labels must be thoroughly scrutinised every time you shop.

The emulsifier known as lecithin (E322) may be derived from egg; this is very rare and use is confined to a few pharmaceutical products. Your pharmacist should be able to supply information about any medicines you are prescribed. Soya is the most common source of lecithin, although it is now also made from rapeseed.

Watch out for the word "ovalbumin", which also denotes the presence of egg. Lysozyme is an enzyme that may be derived from egg white. It may trigger symptoms in a small percentage of people with egg allergy.

Lists of egg-free foods can be obtained directly from many food manufacturers and supermarket chains. They are very helpful in the day-to-day management of the diet.

Pre-packaged foods

All pre-packaged food sold within the EU must declare major allergens including the presence of egg, even if they appear in minute quantities.

The MMR vaccine

The MMR vaccine is normally cultured on chick fibroblasts. Where allergic reactions to MMR have very rarely occurred it has been due to other constituents. One of the MMRs contains Gelatine and this might be a problem in beef and lamb meat allergic subjects. Others are due to the antibiotic content. There is no evidence that people with egg allergy are any more likely to have a reaction to the MMR than those who do not have egg allergy. Anyone who has severe allergy – irrespective of whether this is due to egg or not – may be advised to have the MMR administered in hospital where full treatment is available should a reaction occur. Babies with egg anaphylaxis can have the MMR vaccine.

In 2007 the Paediatric Allergy group (BSACI 2007) – 'The administration of the MMR vaccine to egg-allergic children has an excellent safety record and may be administered to all egg-allergic children as a routine procedure in primary care. As with the administration of other vaccines, MMR administration should be postponed if children are unwell. Adrenaline should be readily available at the clinical site in all cases because anaphylaxis – although rare and unpredictable – can occur.

If previous vaccination (MMR or other) resulted in a severe allergic reaction (any breathing problems or collapse) then a specialist allergy assessment is required prior to repeat – hospital based – MMR administration.'

The flu vaccine

Flu vaccines have variable levels of ovalbumin content but these are declared. It is possible to use the very low content vaccines as a single dose in those only reacting to raw egg. A split dose (1/10th then 9/10ths) is reserved for those with severe egg allergy or milder egg allergy with severe asthma. In most years there is a flu available that is not grown on egg. Your GP should be able to advise.

The suitability of the swine flu vaccines should also be discussed with your GP. In the UK there are two different swine flu vaccines available – Pandemrix and Celvapan. The Department of Health advises that Pandemrix should not be given to anyone with a history of severe allergic reactions to egg; they should receive Celvapan. The Department advises that Pandemrix can be given to people with less severe allergic reactions to egg.

The yellow fever vaccine

The yellow fever vaccine is unsuitable for people with egg allergy.

Eggs from other birds

People who react to hen's eggs are advised not to eat eggs from duck, goose, quail or other birds because they may react to any egg. Rarely, someone allergic to hen's egg may not be able to eat chicken.

References

BSACI Recommendations for Combined Measles, Mumps and Rubella (MMR) Vaccination in Egg-Allergic children – BSACI Paediatric Allergy Group 2007.

The content of this Fact Sheet has been **Peer Reviewed by Professor John O Warner, Professor of Paediatrics and Head of Department, Imperial College London.**

Disclaimer –The information provided in this leaflet is given in good faith. Every effort has been taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

About the Anaphylaxis Campaign – *"supporting people with severe allergies"*

The Anaphylaxis Campaign is the only UK wide charity to exclusively meet the needs of the growing numbers of people at risk from severe allergic reactions (anaphylaxis) by providing information and support relating to foods and other triggers such as latex, drugs and insect stings. Our focus is on medical facts, food labelling, risk reduction and allergen management. The Campaign offers tailored services for individual, clinical professional and corporate members.

Visit our website www.anaphylaxis.org.uk.