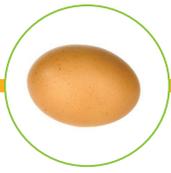


# EGG ALLERGY



A food allergy is a hypersensitivity reaction that involves the immune system (see what is an allergy). Although up to 20-30% of people believe they have a food allergy, studies show that between 2% and 5% of people suffer from a definite food allergy (see food allergy). Egg allergy affects about 2% of infants and children and is most common in the first 3 years of life. It is more common in children with severe and difficult to control eczema.

## WHAT CAUSES EGG ALLERGY?

The main proteins that cause egg allergy are found in the white of the egg rather than the yolk. Proteins that can cause allergy in egg white are ovomucoid, ovalbumin, ovotransferrin and lysozyme and in egg yolk is alpha-livetin.

## SYMPTOMS

- The most common type of egg allergy is “immediate” type (IgE-mediated) food allergy (see food allergy brochure).
- This type of reaction typically occurs within minutes but may present up to 2 hours after eating the food. Most allergic reactions to eggs are mild, causing hives (urticaria), swelling or vomiting.
- Some allergic reactions to eggs can be severe, causing difficulty in breathing due to throat swelling or asthma, or a drop in blood pressure. This is known as anaphylaxis.



## HOW IS THE DIAGNOSIS MADE?

The first step is for the doctor to hear all the details about what was eaten and exactly what reactions occurred. This will help indicate whether the reaction was an allergy or not and if it was an allergy, what kind of reaction it was and whether it was mild or severe.

For immediate reactions a blood test and/or skin prick tests can be done to show the presence of the IgE antibodies. If these tests are negative an immediate type allergy is almost always ruled out. A “positive” result supports, but does not prove an immediate type food allergy, unless the values are very high.

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Blood tests are available to test for egg white, egg yolk and ovomucoid.

Skin prick tests are done by placing a few drops of egg (fresh egg white or specially manufactured egg extract) on the skin and making a prick through the droplet (see skin prick tests). In cases which are uncertain, the allergist may recommend a supervised food challenge to test for egg allergy. This entails giving initially tiny, then increasing amounts of egg to the person in a controlled setting (see oral food challenge tests).



## MANAGEMENT

If you are allergic to eggs, you must avoid eating raw and cooked eggs (boiled, scrambled, fried, poached etc). Egg proteins are changed when they are cooked to become much less likely to cause an allergic reaction. Because of this, it is common for people with egg allergy (e.g. to scrambled or boiled eggs) to also be allergic to raw eggs (in mayonnaise and crème brulee) but to be able to eat egg without any symptoms if it is cooked as a minor ingredient in a meal and at a high temperature for a long time. This is referred to as “being tolerant” of “baked egg”

Over 70% of children who are allergic to “whole cooked” egg will tolerate baked goods that contain egg such as biscuits and cupcakes, although they still react to lightly-cooked egg such as scrambled egg. These children should be encouraged to continue to eat the baked egg on a regular basis. This may even help them to outgrow their “whole cooked” egg allergy! Avoiding foods is difficult! A dietician experienced in managing food allergy will provide advice, recipes and education on how to achieve a nutritious and complete diet. Parents should be read food labels and recognize terms that may indicate the presence of egg.

## FOODS THAT MAY CONTAIN EGG PROTEIN

- Asian dishes
- Baked goods
- Battered food
- Biscuits
- Cakes
- Confectionary
- Croissants
- Crumbed foods
- Custard
- Dessert mixes
- Dips
- Egg noodles/pasta
- Fried rice
- Health drinks
- Ice cream/frozen dessert
- Icing
- Marshmallow
- Mayonnaise
- Mousse
- Meringue
- Nougat
- Pies
- Soup
- Processed meats
- Puddings
- Sausages
- Salad dressings
- Tarts/pastries

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## TERMS THAT IMPLY THE PRODUCT CONTAINS EGG

- Albumin
- Globulin
- Lecithin
- Livetin
- Lysozyme
- Vitellin
- Words starting with "ova" or "ovo," such as ovalbumin or ovoglobulin

## EMERGENCY TREATMENT

- Egg may be difficult to avoid completely and accidental reactions do occur.
- Caregivers in schools, family members and friends should know about the allergy and what to do in an emergency. A detailed "action plan" should be provided in case of reactions. This should clearly describe the difference between mild and severe reactions as well as what to do if different types of reactions occur. The action plan should be highly visible at home and in the school/work environment.
- The patient should have access to their emergency treatment at all times. For milder reactions an anti-histamine may be enough. For severe reactions, injectable adrenaline will be needed.
- The allergy doctor should decide on whether a person with allergy is at risk to have a severe reaction. People with previous severe reactions or at risk of severe reactions should carry injectable adrenaline with them at all time, preferably in the form of an auto-injector.



- People who have been prescribed an autoinjector must be trained when and how to use it and carry it with him/her at all times.
- Egg allergic individuals should wear a Medic alert or similar bracelet, especially if they have a severe allergy or also have asthma.

Paste Photo Here	<b>EGG ALLERGY ACTION PLAN</b>
	<b>Ambulances:</b>
	Municipal: 10177
	ER24: 084 124
	Netcare 911: 082 911
	Plan prepared by Dr.: _____
	Signed: _____ Date: _____
	Hospital/Clinic: _____
	Tel no.: _____

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## VACCINATIONS AND EGG ALLERGY

Despite much belief to the contrary, measles vaccine, influenza (“flu”) vaccine and the measles-mumps rubella (MMR) vaccine do not contain egg protein and should be given routinely to egg-allergic children. Rabies and yellow fever vaccine, on the other hand, may cause reactions and anyone with egg allergy who needs these immunisations should see an allergy specialist.

## WILL MY CHILD OUTGROW THE EGG ALLERGY?

Most children outgrow their egg allergy but this depends on the type of allergy, the time of diagnosis, the level of antibodies at the time of diagnosis and the specific egg protein to which the child is allergic.

Children who are allergic to the ovomucoid protein are less likely to outgrow their allergy. Children who are able to eat egg in baked goods such as cupcakes are likely to outgrow their egg allergy.

- Children with egg allergy should see their allergy doctor regularly to check their growth and nutrition and to make sure they are managing to avoid the food and are able to treat any accidents correctly.
- The allergy doctor will monitor the allergy yearly either by skin prick or blood test. If those tests indicate that the allergy may have been outgrown then you (or your child) may be brought into hospital or clinic as a day case for an egg challenge.
- An egg challenge is a supervised procedure where increasing doses of egg protein will be fed to the patient to decide if tolerance has developed and if that the person is no longer allergic to eggs (see food challenge tests).



A medical specialist with a special interest and skill in allergy might be able to help. See the list of health professionals with skills in allergy on the AFSA website.