

FACTSHEET

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Egg allergy and egg free diet

How common is egg allergy?

Egg allergy is one of the most common food allergies in childhood affecting about 9% of preschool children. It is usually due to allergy (IgE) antibodies against egg proteins. IgE antibodies can be detected using an allergy test such as a skin prick test or blood test.

What are the symptoms of egg allergy?

Reactions can range from mild to severe.

Mild to moderate reactions consist of any one or more of the following:

- Hives or welts
- Swelling of the lips/face/eyes
- Tingling of the mouth
- Abdominal pain or vomiting.

Severe reactions (anaphylaxis) include one or more of the following:

- Difficulty/noisy breathing
- Swelling of the tongue
- Swelling or tightness in the throat
- Difficulty talking and or hoarse voice
- Wheeze or persistent cough
- Persistent dizziness or collapse, pale and floppy (in young children).

It is rare (but possible) for these symptoms to occur alone without hives and/or vomiting. Very rarely very sensitive individuals have died from a severe allergic reaction to egg. Other reactions to egg not due to IgE allergy antibodies are not discussed here.

How is egg allergy diagnosed?

In most cases, the symptoms of egg allergy start soon after eating egg or egg containing foods. These symptoms usually occur minutes after the food is eaten, but can occasionally take up to 2 hours. Having allergy IgE antibodies to egg can be confirmed by an allergy skin prick test or a blood test (called a RAST test). Not every child with a positive allergy test will develop symptoms of egg allergy, and the test results should be discussed with your doctor.

Does the allergy occur to egg white or egg yolk?

Allergy can occur to both egg white and yolk. Egg white allergy is more common. If your child is allergic to either egg white or egg yolk, it is easiest to avoid both egg yolk and egg white.

My child seems to react to raw but not cooked egg. What does this mean?

Some parts of the egg are changed by heat used in cooking and become less likely to cause a reaction. This explains why some people react to raw or lightly cooked but not well cooked egg and other children will react to both raw and cooked eggs. Many children with egg allergy can tolerate small amounts of baked egg in cakes and muffins. You should discuss whether your child might be able to do this with your doctor.

Can my child grow out of egg allergy?

Many infants and young children will grow out of their egg allergy. Approximately two thirds will grow out of

their allergy by 5-10 years of age. Those children who have had milder allergic reactions with only skin reactions are more likely to outgrow their allergy than children with more severe reactions. Your doctor can determine whether egg allergy is still present by monitoring the allergy tests every year or so.

Is my child likely to have a severe reaction from casual contact with egg product on benches, other children's hands or by smelling eggs?

No. Severe reactions from casual contact are extremely rare.

Can I prevent egg allergy in my future children?

There are no steps which can guarantee a child will not develop egg allergy. Avoiding egg during pregnancy or breastfeeding is not recommended, as this has not been shown to prevent allergies. There is some evidence that introducing cooked egg before 8 months of age can reduce the risk of developing an egg allergy (ASCIA).

What about immunisation should my child avoid any vaccines?

It used to be thought that measles immunisation should not be given to egg allergic children. This is incorrect. The measles vaccine is safe in all egg allergic children as it is not grown in hen eggs. Influenza (Flu) vaccine is grown in hen's eggs and can usually be given to egg allergic children in consultation with an allergist. Immunisation Clinics at Children's Hospitals provide this service, or alternatively it can be given through your paediatrician in a local hospital. Discuss Influenza and Yellow fever vaccination (if required) with your doctor.

What is an Epipen?

Epipens are emergency devices called adrenaline autoinjectors that inject a dose of adrenaline into the muscle. They are used to treat severe reactions (anaphylaxis). The drug adrenaline reverses the severe allergic reaction and can be lifesaving.

Should my child carry an adrenaline autoinjector?

All allergists agree that children who have had a serious reaction with involvement of the breathing passages should have an adrenaline autoinjector. The need for other children to have an adrenalin autoinjector depends on a number of factors which should be discussed with your doctor.

If you have an adrenaline autoinjector it is very important that you understand how and when to use it and that you have a written anaphylaxis action plan provided by your doctor.

How do I avoid exposing my child to egg?

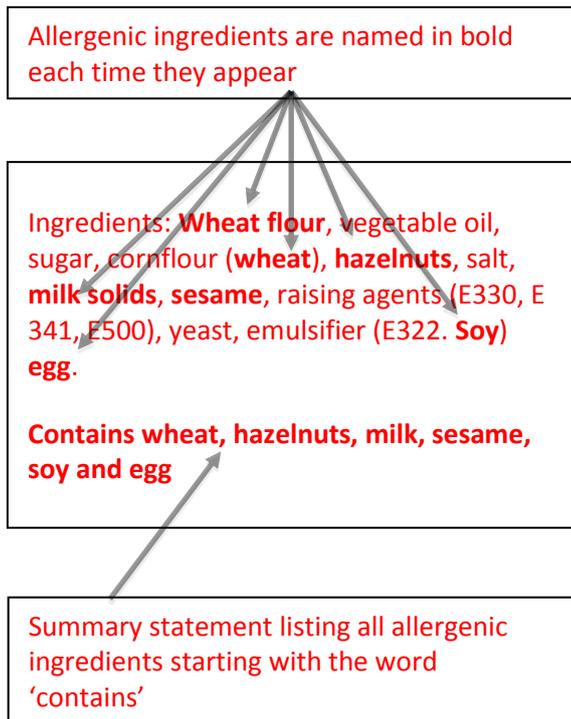
Egg is found in many foods and often in foods we don't expect. The following foods often contain egg:

- Asian dishes
- Battered food
- Binding for rissoles, patties, meatloaf
- Milk puddings
- Biscuits
- Cakes
- Cake mixes
- Confectionary e.g. marshmallows
- Croissants
- Crumbed foods
- Custards
- Dessert mixes
- Dips
- Egg noodles and pasta
- Fried rice
- Health drinks
- Ice cream, frozen desserts and sherbets
- Icings
- Tarts and pastry
- Malted chocolate drinks, eg. Ovaltine
- Mayonnaise
- Melts
- Mock or butter cream
- Mousse
- Muffins and muffin mixes
- Naan bread
- Nougat
- Pie fillings
- Prepared soups, clear soups, consommés
- Prepared meats
- Puddings
- Rissoles, sausages
- Salad dressings
- Some breads, breaded foods
- Shiny glaze on baked goods
- Vegetarian meat substitutes

Unless the doctor says otherwise, egg needs to be strictly avoided.

- ALWAYS check the ingredient list on the food label even if it says "egg-free" or you have bought the

product before. Manufacturers can change their ingredients without notice. An example of a food label is presented below:



It is important to:

- Avoid foods that don't have a food label or that you haven't made yourself, as there is no guarantee that the food doesn't contain eggs.
- Plan eating out and travelling and talk to staff serving you about your child's allergy.
- Avoid food that is served using spoons/tongs that are also used to serve food containing egg (e.g. some takeaway meals).
- Prepare safe meals at home for your child to take out.
- Teach your child about their allergy.

Note: Some children with egg sensitivity are able to eat cooked foods containing small amounts of egg without having a reaction. Your doctor can advise you about this. Do not give your child egg containing foods unless this has been discussed with your doctor.

What about foods with a label that says "may contain traces of egg"?

Some foods may carry a warning on the label "may contain traces of egg". This usually indicates that the food is made in a facility that also makes other foods which do contain egg. Discuss what to do about these foods with your doctor.

Egg alternatives/substitutes

It is possible to make cakes and muffins successfully by changing recipes you use at home. The texture of the product may be a little different but the taste is the same.

For baking:

1 egg = 1 teaspoon egg replacer + 2 tablespoons water

1 egg = 1 teaspoon baking powder + 1 tablespoon liquid (water, juice or milk)

1 egg = 1 teaspoon baking powder + 1 tablespoon liquid (e.g. water, juice or milk) + 1 tablespoon vinegar

1 egg = 1 tablespoon jam or golden syrup

1 egg = 1 ½ tablespoons water + 1 ½ tablespoons oil + 1 teaspoon baking powder

For binding ingredients:

1 egg = ¼ cup mashed potato or pumpkin

1 egg = ¼ cup mashed banana or apple puree

Commercial egg substitutes

Commercial egg substitutes are useful for making cakes, muffins, biscuits, pancakes and fritters but will not make scrambled eggs or meringues

These products contain potato or tapioca starch or vegetable gums.

Remember:

- If you are unsure about something discuss it with your doctor.
- Most children will outgrow their egg allergy.

Where can I find more information on the internet?

- The Australian Society of Clinical Immunology and Allergy (ASCI) website contains useful information on food allergy written by Australian specialists: www.allergy.org.au
- The patient support group Anaphylaxis Australia offers valuable updates and tips for dealing with food allergies: www.allergyfacts.org.au
- Food Standards Australia and New Zealand for information on food labeling: www.foodstandards.gov.au