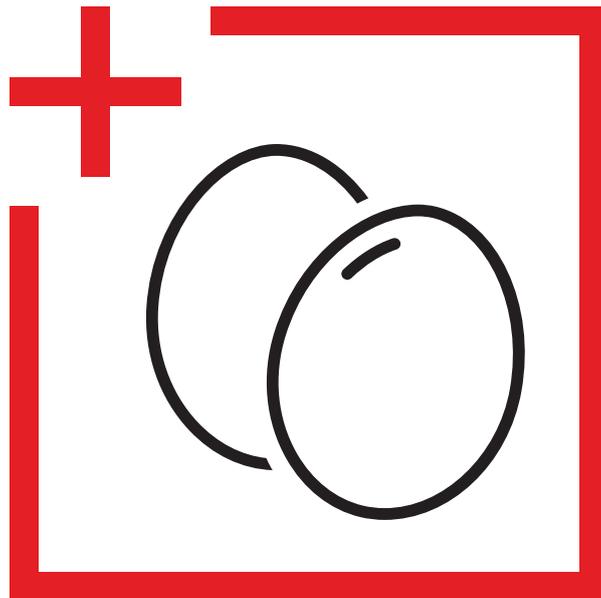


A Guide to the Home Introduction of Egg for children



Patient Name:

Dietitian:

Date:

Contact Number:



A Guide to Home Introduction of Egg

This guide is ONLY suitable for children who have, or are growing out of a delayed (non-IgE-mediated) allergy to egg, and have been advised by their Doctor or Dietitian that it is safe to start introducing egg at home.

Before you start

- Ensure your child is well and their eczema, asthma or hay-fever is well controlled.
- If your child has needed to use a salbutamol (Ventolin) or terbutaline (Bricanyl) blue inhaler in the last three days then delay starting the introduction.
- Your child should be tolerating any new medication for at least 2 weeks before starting the home introduction and should continue any regular medications as prescribed.
- Perform the home introduction in your own home. Choose a day when you have time to observe your child for at least 2 hours after they have eaten the food.

How to perform the home food introduction?

- Ensure that any egg-containing foods you give do not contain, and are not contaminated with any other foods your child is allergic to.
- Do not introduce any other new foods while introducing egg.
- If your child refuses to eat the food do not force them.
- We recommend spending at least three days at each stage before progressing to the next stage of egg introduction. You may take longer at each stage if this is more convenient, if you think your child will tolerate it better, or on the advice of your Dietitian.
- Observe your child closely for at least 2 hours after they have eaten their first portion of egg, and each time you increase the portion size (see 'egg ladder' below).
- It is a good idea to keep a food and symptom diary to help identify any delayed reactions that may occur while you are introducing egg.
- If at any time, you are unsure whether your child is having an allergic reaction, **stop giving the food**, and observe closely for any symptoms.



What if your child has an allergic reaction?

Immediate-type (IgE-mediated) allergic reactions

It is very unlikely that your child will have an immediate-type allergic reaction to egg if you have been advised by your Dietitian or Doctor that it is safe to introduce egg at home. However, we have listed the immediate symptoms below as a precaution.

Symptoms of an **immediate-type** allergic reaction generally develop within minutes or up to 2 hours of eating egg and include one or more of the following: hives, red or itchy rash, runny/itchy nose, sneezing, itchy eyes, swelling of face/eyes/lips, sudden onset/persistent cough, wheeze, difficulty breathing, abdominal/tummy pain, vomiting or loose stools.

In the unlikely event that your child develops any of these symptoms **STOP feeding them egg and seek medical advice**. You should take a photo to demonstrate symptoms. If you have an allergy action plan, please refer to it.

Delayed-type (non-IgE mediated) allergic reactions

Symptoms of a **delayed-type** allergic reaction generally develop between 2 hours and up to 3 days after eating egg and include one or more of the following: worsening eczema, abdominal/tummy pain, increased wind, nausea, constipation or loose stools. Sometimes it is difficult to work out if delayed-type symptoms are due to a food your child has eaten and may also occur for other reasons e.g. a tummy bug, being stressed or anxious.

If delayed-type symptoms occurred the first time you gave egg, stop feeding your child egg and wait at least 4 weeks before trying again. Next time start by offering a smaller amount of the food e.g. 1/8th portion.

If symptoms occurred when you increased the portion size, or moved on to the next step of the egg ladder, go back to amount or type of egg-containing food that was tolerated. Wait 4 weeks before trying to increase the portion size again or moving to the next step of the ladder.

If your child continues to have delayed allergy symptoms you should discuss with your Doctor or Dietitian whether to continue with the egg ladder.



Egg introduction ladder for non-IgE-mediated allergy

We recommend you start with a ½ a teaspoon-sized portion for one day.

Then give a ¼ portion for ___ day(s) and double this every ___ day(s) until a full portion is reached.

Additional advice on dose progression:

Stage 1 Baked egg in a flour matrix

Choose one of the following options:

- 1 fairy cake; 1 slice banana bread; 3 meatballs (See BOX 1. below for recipes)
 - 1 shop-bought Yorkshire Pudding (pre-cooked)
 - 40g dried egg pasta cooked for 10 minutes (20g dry weight)
 - 1 slice (~30g) 'free from' bread or 1 'free from' pitta (containing egg)
-

Stage 2 Baked egg in other foods

Choose one of the following options:

- 1 sausage or ½ burger containing egg (vegetarian and meat varieties)
- 1 Quorn™ sausage or 2-3 tbsp Quorn™ mince or pieces

Once your child is tolerating a full portion regularly you can start including other foods with baked/well-cooked egg – see BOX 2 for examples.

Stage 3 Cooked whole egg

- 1 medium egg, hard boiled
-



Egg introduction ladder for non-IgE-mediated allergy *continued*

Stage 4 Lightly cooked egg

1 medium egg, scrambled/soft-boiled/fried/omelette/pancakes

Once your child is tolerating a full portion regularly you can start including other foods with loosely/lightly cooked egg – **see BOX 2 for examples.**

Alternative: 1½ meringues. Use shop-bought or if home-baked make sure they do not have sticky centres (**see BOX 1. for recipe**). Note: this portion has less egg protein than a medium egg so your Dietitian may advise an additional step before you can start to include other foods containing loosely/lightly cooked egg.

Stage 5 **Undercooked or raw egg – do not progress to this stage until confirmed with your Doctor/Dietitian that it is safe to do so.**

1 scoop ice-cream containing egg; ½ -1 tablespoon fresh mayonnaise

Start with trace amounts.

Once your child is tolerating a full portion regularly you can start including other foods with undercooked or raw egg – **see Box 2 for examples**



BOX 1. Recipes

- please include ALL listed ingredients

Stage 1 recipes

Fairy Cakes (makes 8)

Ingredients

110g butter/dairyfree spread
110g sugar
1 medium egg
110g self-raising flour or
wheat free flour mix

Method

Preheat the oven to 180°C/Gas Mark 4.
Cream the butter and sugar together.
Mix in the egg, then fold in the flour.
Spoon into fairy cake cases.
Bake for 10-15 minutes then leave to cool.
(~1g egg protein per fairy cake)

Meatballs (makes 20)

Ingredients

500g mince e.g. beef,
chicken or turkey
60g breadcrumbs (wheat
free if required)
1 medium egg
1 shallot, finely chopped
Mixed herbs, salt, pepper

Method

Preheat the oven to 180°C/Gas Mark 4.
Mix all of the ingredients together.
Roll into 20 meatballs that are similar in size and place on an
oiled baking sheet.
Bake for around 20 minutes until cooked through.
Serve with a sauce or crumbled and mixed with mashed
potatoes, rice or vegetables.
(~1g egg protein per 3 meatballs)

Banana Bread (8 slices)

Ingredients

1 large banana, mashed
1 medium egg
180g plain flour or wheat
free flour mix
2 tsp baking powder
½ tsp cinnamon (optional)
1 tsp vanilla essence
60ml vegetable oil
Optional: 120g caster sugar
*Other fruit e.g. apple can be
used instead of banana*

Method

Preheat the oven to 180°C/Gas Mark 4 and line a small loaf
tin with baking paper.
Blend the egg and vegetable oil together, then add to the
mashed banana.
Add the dry ingredients to the wet ingredients and mix. If
baking a loaf bake for 30 minutes or for muffins bake for 15
minutes. Cool on a wire rack.
(~1g egg protein per slice of banana bread)



BOX 1. Recipes *continued*

- please include ALL listed ingredients

Stage 4 recipe

Meringues (makes 8)

Ingredients

3 large eggs (whites only)
175g caster sugar
½ tsp vanilla extract

Method

Preheat the oven to 140°C/Gas Mark 1 and line a baking tray with baking paper.

Whisk the egg whites to soft peaks. While whisking, slowly add the caster sugar, 1 tablespoon at a time until you have a stiff, glossy mixture. Then whisk in the vanilla extract.

Using a metal spoon, place 8 dollops of meringue on the baking paper. Make sure they are similar in size and well-spaced.

Bake for 1½ hours and leave in the turned-off oven for at least 4 hours to cool slowly.

(~1.2g egg protein per meringue)



BOX 2. Egg-containing foods *continued*

Your Dietitian will advise you which group of foods to introduce.

Baked/well-cooked	Loosely/lightly cooked (yolk & white cooked solid)	Undercooked or raw
Plain, shop-bought cakes (avoid royal or fondant icing)	Homemade pancakes, waffles and fritters	Royal or fondant icing (fresh and powdered), Homemade marzipan
Biscuits e.g. jaffa cake, sponge fingers, cookies, TUC™ crackers	Boiled, fried, scrambled or poached egg. Choose British Lion stamped eggs ¹ .	Some chocolates and sweets contain egg e.g. nougat, Mars bars™, Chocolates with fondant/cream fillings Cadbury Creme Egg™
Homemade cakes, biscuits and sponge puddings	Quiche, flan, soufflé, moussaka, custard tart, cheese cake	Raw egg in cake mix, other uncooked dishes
Shop-bought pancakes	Egg fried rice, Egg Fu Yung, Spanish tortilla, fritatta, omelette	Fresh mayonnaise, horseradish sauce, tartare sauce, béarnaise, Hollandaise sauce, mayonnaise, salad cream
Egg glaze on pastry	Dried egg noodles ² , fresh egg pasta	Cheeses containing egg lysozyme (E1105) e.g. Grana Padano, Manchego
Gluten free bread with egg e.g. Genius™, Livwell™, Warbutons™	Fish, meat or vegetables fried in egg-based batter or tempura	Meringues with sticky centres, soft meringue e.g. lemon meringue pie
Brioche, challah, choux pastry, rich shortcrust pastry with egg	Egg in batter or bread crumbs e.g. Scotch egg	Some ice-creams and sorbets, especially fresh and luxury types e.g. Ben and Jerry's™, Häagen-Dazs™
Dried egg pasta e.g. lasagne, cooked for at least 10 minutes	Yorkshire puddings with soft centres e.g. sticky batter	Some uncooked desserts e.g. mousse (most shop-bought mousses do not contain egg), tiramisu
Some gravy granules contain egg e.g. chicken flavoured gravy	Crème Brulee, egg custard, fresh custard	
Shop-bought yorkshire puddings, <u>must be pre-cooked</u> e.g. frozen	Meringues – well-cooked with no sticky centres	
Sausages containing egg (vegetarian and meat varieties), other processed meats e.g. burgers	Some marshmallows	
Quorn™ based products	Lemon curd	

Table adapted from BSACI guidelines on management of egg allergy 2010 and updated by Dietitian consensus 2018.

