

Nutrition & Dietetics Department and
Paediatric Department

Doing a milk challenge at home

- This leaflet contains the information needed to start introducing dairy into your child's diet at home
- It should only be used if your child has been assessed by a doctor or dietitian and they have been advised that it is safe to do a food challenge at home
- It should not be used for children with severe reactions to cow's milk or milk products.
- It should not be used without supervision from a healthcare professional.

Living our values *every day*



When should we start?

- Make sure that your child is well (no cold, flu or any other childhood illness and ensure that if they have asthma or eczema, that their symptoms are under control).
- Choose a time when the family is relaxed and you have time to do the challenge properly.
- Do not introduce new foods at the same time as doing the challenge.

Allergic reactions – What to look for:

Mild to moderate symptoms	Severe symptoms
<ul style="list-style-type: none"> • Tingling/itching sensation in the mouth • Feeling hot or very chilled • Intense itching • Rapid development of nettle rash/hives • Swelling, particularly of the face • Rising anxiety • Nausea and/or vomiting • Abdominal pain / diarrhoea • Pallor • Mild wheeziness. <p>Treatment:</p> <ul style="list-style-type: none"> ➔ Give anti-histamines and monitor your child ➔ If wheezy, give their inhaler if they have one ➔ Follow your child's allergy management plan. ➔ Call your health professional or 999 if you become overly concerned. 	<ul style="list-style-type: none"> • Difficulty in breathing (either wheezy and/or hoarseness and/or croupy sound) • Decreased level of consciousness: faint, pale, floppy, unresponsive • Collapse. <p>Treatment:</p> <ul style="list-style-type: none"> ➔ Call 999 and seek emergency help immediately

What is the “Milk challenge”?

The milk challenge (also called “Milk ladder”) consists of 6 steps of increasing the amounts of milk protein given to your child and giving forms of milk protein that are less and less processed. The practical idea behind this “ladder” is the recognised fact that the more ‘baked’ cow’s milk protein is, the less allergenic it is.

- Each step will normally take 3 – 7 days.
- ➔ Start with a smaller amount of the food on the first day and gradually give a larger amount of the food each day, until your child takes a normal portion for age.
- ➔ If your child can already tolerate some foods containing milk, start on the closest step in the ladder rather than at the bottom.
- ➔ If your child reacts on one step, stop at that point and wait a further month before trying to move “up” the ladder again.
- ➔ It is important that your child continues to eat all the foods containing dairy that they have already tolerated.

Note: Our “milk ladder” is adapted from the updated iMAP ladder published in August 2017. We have taken a practical approach to dairy reintroductions by offering a choice of commercial products and home-made items to progress from steps 1 to 3. You will find the iMAP recipes at the end of this booklet if you wish to bake the biscuits, muffins and pancake for steps 1 to 3.

Notes:

Milk ladder

Step 1 - Home-made biscuits (see iMAP recipe)

Or malted milk biscuits, garibaldi biscuits, bread that contains milk (e.g. milk roll or M & S sliced bread or naan bread).

Step 2 - Muffins (see iMAP recipe)

Or dishes cooked in oven for at least ½ hour at a temperature of minimum 180C) e.g. Shepherd's pie with milk/cheese, fish pie with milk/cheese, lasagne, pizza etc.

Step 3 - Pancakes (see iMAP recipe)

Or dishes cooked in oven for at least ½ hour at a temperature of minimum 180C) e.g. Shepherd's pie with milk/cheese, fish pie with milk/cheese, lasagne, pizza etc.

Step 4 – Cheese

Pick a hard cheese (e.g. cheddar, parmesan) and aim to reach a 15g portion. Give uncooked.

Step 5 – Yoghurt

Aim to reach a 125g pot.

→ Once your child tolerates the steps above, you can also introduce the following:

Fromage frais (Petit Filous); cream cheese, soft cheese (e.g. Camembert), crème fraiche, ice cream, butter/spreads containing cow's milk, white sauce, cheese sauce, custard, rice pudding, melted cheese on foods, chocolate buttons

Step 6 – Milk

If your child is under age 1 year: Readymade liquid formula milk or formula milk made up from powder **or** if your child is over age 1 year, cow's milk (including UHT or long- life milk).

A note about calcium

In babies under 1 year:

- . Aim to give 500 - 600mls infant formula per day (whether milk free or normal formula).

Toddlers from 1 – 3 years:

Those who remain allergic to cow's milk: 300ml calcium-fortified milk substitute (e.g. soya, oat, pea or coconut milk) will meet their calcium requirements;

Those who have outgrown their cow's milk allergy: 300ml cow's milk will meet their calcium requirements (60g fromage frais or yogurt can be swapped for 60ml milk and 30g cheddar cheese can be swapped for 180ml milk).

For other age groups:

- Ask for separate calcium leaflet

Recipes to be used with the iMAP Ladder

Step 1: Biscuits



Tips

- ✓ Cool the dough in the fridge for 30 min: it makes it easier to handle.
- ✓ Add $\frac{1}{4}$ teaspoon of xanthan gum if you use wheat-free flour.
- ✓ If you want to use a small cookie cutter to make more attractive shapes, divide your dough in 20 balls and squish each ball in the cookie cutter.

Sweet Biscuits -Makes 20 small finger size biscuits

Ingredients

- 125g flour
- 50g cold dairy-free spread
- $\frac{1}{4}$ to $\frac{1}{3}$ of a cup of grated apple/pear/pureed banana
- 1 teaspoon of skimmed milk powder
- A few drops of vanilla essence or the tip of a knife of cinnamon for flavouring

Method (Sweet biscuits continued)

1. Mix the flour (& xanthan gum if used) with the milk powder.
2. Rub in the cold dairy free spread.
3. Mix in the grated fruit (you may need to add a little bit more if the mix is too dry) and your flavouring (vanilla powder).
4. Roll out the dough and cut in 20 finger sized strips.
5. Bake for 10 – 15 min in the oven at 180C (or 350F).

Savoury Biscuits- Makes 20 small finger sized biscuits

Ingredients

- 125g flour
- 50g cold dairy-free spread
- 40g grated dairy-free cheese
- 1 teaspoon of skimmed milk powder
- 2 tablespoons of water.

Method

1. Mix the flour (& xanthan gum if used) and milk powder.
2. Rub in the cold dairy free spread.
3. Mix in the dairy-free cheese. Add the water (you can add a little more water if the dough seems dry).
4. Roll out the dough and cut in 20 finger sized strips.
5. Bake for 10 – 15 min in the oven at 180C (or 350F).

Step 2: Muffins



Tips:

- ✓ *Use a whisk and mix milk and oil together to make the muffins lighter.*
- ✓ *Muffins are quite large: ensure you use muffin moulds that are big enough.*
- ✓ *Add ½ teaspoon of xanthan gum if you use wheat-free flour.*

Sweet Muffin - Makes 6 muffins

Ingredients

- 250g flour
- 2½ teaspoons (10g) of baking powder
- 2 level tablespoons (25g) of sugar (if you child is older you can add 2-3 tablespoons)
- Pinch of salt
- 50ml sunflower oil
- 250ml milk
- 110g of finely chopped/mashed fruit: apple/pear/banana.
- Vanilla essence to taste.

Method (Sweet Muffin continued)

1. Mix flour (& xanthan gum if used), baking powder, sugar and salt.
2. Mix oil and milk together. Add the liquids to the dry ingredients.
3. Finally add in chopped fruit and vanilla (additional) and mix through.
4. Bake for 20mins in the oven at 180-200C (350-400F).

Savoury Muffin - Makes 6 muffins

Ingredients

- 250g flour
- ½ teaspoons (10g) of baking powder
- Pinch of salt
- 50ml sunflower oil
- 250ml milk
- 60g of grated dairy-free cheese

Method

1. Mix the dry ingredients together: flour (& xanthan gum if used), baking powder and salt.
2. Mix oil and milk together and then add to the dry ingredients.
3. Finally add in the cheese and mix through.
4. Bake for 20 mins in the oven at 180-200C (350-400F).

Step 3: Pancakes



Tips:

- ✓ You can flavour the pancake dough to taste (e.g. vanilla for a sweet pancake or fresh herbs for a savoury pancake).
- ✓ Each pancake is about the size of a small ladle of dough.
- ✓ *If your child really dislikes cake/pancake textures, another option is to boil a small potato, add 40 ml of milk and a little milk-free spread, then cover with foil and bake in the oven for 40 minutes at 180°C - 200°C*

Pancakes- Makes 6 pancakes

Ingredients:

- 125g flour
- 2½ teaspoons (10g) baking powder
- 1 pinch of salt
- 2 tablespoons of sunflower oil
- 250ml milk
- 50ml water

Method (Pancakes continued)

1. Add all ingredients into a mixing bowl and mix together.
2. Fry in a hot pan.

All recipes are taken and adapted from iMAP2019:

<https://www.gwh.nhs.uk/media/hribpee4/imapmilkadderrecipes201119.pdf>

This dietary advice was produced using the most up to date knowledge available at the time. Every care has been taken to give correct and up to date information.

Other trusted sources of further information

<https://www.allergyuk.org/?s=milk+ladder+Introduction/explanation>

<https://www.nhs.uk/common-health-questions/childrens-health/what-should-i-do-if-i-think-my-baby-is-allergic-or-intolerant-to-cows-milk/>



KINGSTON HOSPITAL PAEDIATRICS:
FROM BIRTH - 18 YEARS



Department of Nutrition &
Dietetics

Kingston Hospital NHS Trust
Reviewed December 2021

Patient Advice and Liaison Services (PALS)

PALS can provide information, advice and support to patients and relatives and will listen to and act on your concerns, suggestions or queries.

020 8934 3993

khft.pals@nhs.net

Accessible information

We are actively working to make our patient information easier to read and accessible in a range of formats. If you would like this information in large print, audio or electronic format please speak to a member of staff in the department. If you need a different format, please let us know and we will do our best to meet your request.

Pastoral & Spiritual Support Services

We offer a multi-cultural approach serving people of all faiths and life philosophies. A Duty Chaplain is available 24/7. You can request to speak to a Church of England or Roman Catholic Priest, the Rabbi or Imam.

Please call the hospital switchboard on **020 8546 7711** and ask to speak to the Duty Chaplain.

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Date of publication: January 2022

Ref No: A0182

Date of Review: January 2024

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