

# **Mik Reintroduction** for one year olds or six months exclusion



# THE IMAP MILK LADDER

To be used only in children with Mild to Moderate Non–IgE Cow's Milk Allergy Under the supervision of a healthcare professional PLEASE SEE THE ACCOMPANYING RECIPE INFORMATION

# Pasteurised milk/suitable infant formula

Amount– start with 100ml (3.5 fl oz) of pasteurised milk/infant formula and mix this with current milk replacement. Build up to 200ml (7 fl oz). If this is tolerated switch all current milk replacements (bottle and in breakfast cereals) to pasteurised milk or suitable infant formula. Discuss what is an appropriate amount of milk/milk products with your healthcare professional. UHT and sterilised milk will be tolerated as well.

Once your child tolerates yoghurt, butter, spread, chocolate buttons, fromage frais, petit filous (be careful of the sugar content), you can introduce softer cheese like cream chesse and camembert/ brie – remember to use pasteurised soft cheese for children.

### Yoghurt

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Amount -125ml (4.5 fl oz)

## Cheese

Amount –15ml (0.5 fl oz) (hard cheese e.g. cheddar or parmesan) Once your child tolerates cheese, you can introduce baked cheese on a pizza or baked on other food as well.

Pancake

Amount –half and build up to 1. (see recipe)

**Muffin** Amount – half and build up to 3. (see recipe)

**Cookie/Biscuit** Amount –1 and build up to 3. (see recipe)

#### At each of the following steps cookie, pancake, cheese and yoghurt

It may be adviseable in some cases to start with a quarter or half portion of that particular food and then over a few days to gradually build up to a whole portion. Please ask your healthcare professional for guidance on this.

# The lower steps are designed to be used with homemade recipes. This is to ensure that each step has the appropriate milk intake. The recipes will be provided by your healthcare professional

Should you wish to consider locally available store-bought alternatives – seek the advice of your healthcare professional re: availability.

# Practical Pointers for Parents/Carers on using at home the iMAP Milk Ladder



## Only for children who are being managed as mild – to – moderate Non–lgE Cow's Milk Allergy.

The practical concept of this ladder is the recognised fact that more 'baked' cow's milk protein is, usually the less allergenic it is. Therefore you will see that Step 1 begins with a form of very well baked milk protein and then the further steps give examples of gradually less well baked milk protein products.

The following 'Pointers' should make it easier for you to understand how to best use this ladder.

- Before starting the Ladder and progressing to each further step, please ensure that your child is well at the time and also that any tummy symptoms, bowel symptoms or eczema has settled.
- The time spent on each step will vary from one child to another depending on their individual expression of milk allergy. This should also be discussed and agreed with you.
- Each of the early steps of the ladder importantly is accompanied by the appropriate recipe (see recipes).
- Each of the recipes has an egg and wheat free option (they are all soya free) to make the Ladder suitable for children who may have other co-existing food allergies.
- If your child has multiple allergies and you are using shopbought alternatives please use appropriate 'free-from' range, ensuring the product contains milk.

# Below are a few shop – bought alternatives for the first 3 steps.

#### Step 1 – Milk containing Cookie / Biscuit

- Digestive
- Malted Milk Biscuit
- Baby Biscuit

#### Step 2 – Muffin

- Plain brioche roll
- Plain sponge cake e.g. maderia cake
- Fruit muffin e.g. blueberry muffin

#### Step 3 – Pancake

• Small plain scotch pancake

Please note shop-bought alternatives may be larger in size than recipes – please start with ¼ moving up to whole one.

#### Please follow milk ladder for steps 4-6.

- If the food on any step of the ladder is tolerated, your child should continue to consume this (as well as all the foods in the previous steps) and then try the food on the next agreed step.
- If you child does not tolerate the food in a particular step, simply go back to the previous step. You should then be advised when that further step can be tired again.

# Step1



# UK Home Recipe Sheet 1 Biscuit

#### Sweet (Plain) Biscuit

#### Ingredients

 125g (1 cup) plain wheat flour (can use wheat-free / gluten-free flour)
(Add 1g (1/4 trp) xapthap gum if wheat-free / gluten-free

(Add 1g (1/4 tsp) xanthan gum if wheat-free / gluten-free flour is being used)

- 50g (1/4 cup) cold, milk-free margarine or spread
- 50-70g pureed / mashed / grated fruit (apple, banana, pear) – this may vary depending on the moisture content of the fruit
- 2g (1 tsp) skimmed or non-fat milk powder
- A few drops of alcohol-free vanilla extract or tip of knife of vanilla powder.

#### Method

#### Pre-heat the oven to 180°C (350°F)

- 1. Mix the flour, (plus xanthan gum if using) and milk powder in a bowl
- 2. Rub in the cold milk-free margarine or spread
- 3. Add the vanilla extract or powder and mix in the fruit to a suitable consistency (add more if too dry), bringing it together into a flattened ball
- 4. Wrap dough in cling film and leave to rest in fridge for at least 30 minutes
- 5. Roll out and cut into 20 small finger sized strips
- 6. Bake in the ovenfor 10-15 minutes until golden brown
- 7. Cool on a wire rack.

#### **Savoury Biscuit**

#### Ingredients

- 125g (1 cup) plain wheat flour (can use wheat-free / gluten-free flour) (Add 1g (1/4 tsp) xanthan gum if wheat-free / gluten-free flour is being used)
- 50g (1/4 cup) cold, milk-free margarine or spread
- 40g (1/3 cup) grated dairy-free cheese
- 2g (1tsp) skimmed or non-fat milk powder
- 10ml (tbsp) water.

#### Method

#### Pre-heat the oven to 180°C (350°F)

- 1. Mix the flour, (plus xanthan gum if using) and milk powder in a bowl
- 2. Rub in the cold milk-free margarine or spread
- 3. Mix the grated dairy-free cheese, add water (use a bit more if dry) and bring together to form a flattened ball
- 4. Wrap dough in cling film and leave to rest in fridge for at least 30 minutes
- 5. Roll out and cut into 20 small finger sized strips
- 6. Bake in the ovenfor 10-15 minutes until golden brown
- 7. Cool on a wire rack.

#### **Step 1 Notes**

- 1 biscuit provides 0.035g of milk protein
- Start with 1 biscuit, increase to 2 and then 3 biscuits before moving on to the next step of the milk ladder.

Your healthcare professional will guide you on the length of time you should stay on each stage of Step 1 (biscuits) before moving on to the next step of the milk ladder).

# Step2

# UK Home Recipe Sheet 2 Muffin

### Sweet (Plain) Muffin

#### Ingredients

• 250g (2 cups) plain wheat flour (can use wheat-free / gluten-free flour)

(Add 1g (1/2 tsp) xanthan gum if wheat-free / gluten-free flour is being used)

- 10g (1/2 tsp) baking powder (check it is wheat / gluten-free if necessary)
- 25g (2 level tbsp) sugar
- A pinch of salt
- 50ml (1/4 cup) sunflower or canola oil
- 250ml (1 cup) milk
- 110g (1/2 cup + 1 tbsp) finely chopped / mashed / grated fruit (apple, banana, pear)
- A few drops of alcohol-free vanilla extract or tip of knife of vanilla powder.

#### Method

Pre-heat the oven to 180°C - 200°C (350°F - 400°F)

- 1. Mix the flour, (plus xanthan gum if using), baking powder, sugar and salt in a bowl
- 2. Whisk the milk and oil together before adding to the dry ingredients
- 3. Add the chopped / grated / mashed fruit and vanilla essence and mix well
- 4. Divide the mixture into 6 muffin cases
- 5. Bake in the oven for 15-20 minutes
- 6. Cool on the wire rack.

## Savoury Muffin

#### Ingredients

• 250g (2 cups) plain wheat flour (can use wheat-free / gluten-free flour)

(Add 3g  $(1/2 t_{SP})$  xanthan gum if wheat-free / gluten-free flour is being used)

- 10g (2 1/2 tsp) baking powder (check it is wheat / gluten-free if necessary)
- A pinch of salt
- 50ml (1/4 cup) sunflower or canola oil
- 250ml (1 cup) milk
- 60g (1/2 cup) grated dairy-free cheese
- A handful of chopped spinach, grated carrot or courgette (optional).

#### Method

Pre-heat the oven to 180°C - 200°C (350°F - 400°F)

- 1. Mix the flour, (plus xanthan gum if using), baking powder and salt in a bowl
- 2. Whisk the milk and oil together before adding to the dry ingredients
- 3. Add the dairy-free cheese (and spinach, carrot or courgette if using) and mix well. Add a little water if needed
- 4. Divide the mixture into 6 muffin cases
- 5. Bake in the oven for 15-20 minutes
- 6. Cool on the wire rack.

#### Step 2 Notes

- 1 muffin provides 0.875g of milk protein
- Start with 1/2 muffin, increase to 1 muffin before moving on to the next step of the milk ladder.

Your healthcare professional will guide you on the length of time you should stay on each stage of Step 2 (muffin) before moving on to the next step of the milk ladder).







### **UK Home Recipe Sheet 3 Pancake**

#### Pancake

#### Ingredients

- 125g (1 cup) plain wheat flour (can use wheat-free / gluten-free flour)
- 10g (2 1/2 tsp) baking powder (check it is wheat / gluten-free if necessary)
- A pinch of salt
- 30ml (2 tbsp) sunflower or canola oil
- 250ml (1 cup) milk
- 50g (1/4 cup) water.

#### Method

- 1. Add all the dry ingredients into a mixing bowl
- 2. Whisk the oil, milk and water together, before adding to the dry ingredients
- 3. Whisk thoroughly together to make a smooth batter
- 4. Heat the oil in a frying pan until smoking, then pour in some batter to coat the bottom of the pan
- 5. Once golden, flip the pancake and cook the other side
- 6. Serve immediately or keep warm by piling on top of each other between sheets of baking parchment.

#### **Step 3 Notes**

- 1 pancake provides 1.47g of milk protein
- Start with 1/2 pancake, increase to 1 pancake before moving on to the next step of the milk ladder.

Your healthcare professional will guide you on the length of time you should stay on each stage of Step 3 (pancake) before moving on to the next step of the milk ladder).

See the **iMAP Milk Ladder** for information on the remaining Steps.

#### NHS Grampian, Adapted from IMAP guidelines, 2018