# Cow's Milk Protein Allergy Patient Information Leaflet

Children and Young People Allergy Network Scotland (CYANS)

# Contents



This Leaflet has been prepared by NHS National Services Scotland (NSS) National Networks. Accountable to Scottish Government, NSS works at the heart of the health service providing national strategic services to the rest of NHS Scotland and other public sector organisations to help them deliver their services more efficiently and effectively. Working across professional and organisational boundaries, National Networks support the delivery of safe, effective healthcare that's designed around patients, carers and families.

# Guidance for suspected cow's milk protein allergy (CMPA)

## Introduction

An allergy to cow's milk happens when the body reacts to the proteins within milk. It can cause several symptoms such as diarrhoea, vomiting, skin rashes, eczema, and poor weight gain. In more severe cases, it can cause hives (a rash), swollen lips and eyes or wheeze. Symptoms can be **immediate** (within minutes to two hours) or **delayed** (from two to 48 hours).

If your child has any immediate symptoms after feeds or eating cow's milk containing foods, you should discuss this with your health visitor or GP as this could be a cow's milk protein allergy (CMPA). They can arrange a referral to the appropriate health care professional to discuss this further.

If your child has delayed symptoms, the only way to diagnose CMPA is to do a trial of a milk free diet for up to four weeks, followed by a challenge with cow's milk, while monitoring any changes in symptoms during this time. A challenge is what we call adding milk back into your child's diet, how to do this is described below. We need to do a challenge because some of the symptoms of CMPA are also symptoms of other childhood conditions or illnesses which might have got better over time. By adding cow's milk back into your child's diet, we can make sure it is milk that is the cause.

If symptoms improve on a milk free diet and then return during the challenge, this is a sign that your child has an allergy.

If symptoms do not improve while following a milk free diet, it is unlikely your child has a cow's milk protein allergy.

**Do not** do a milk challenge as, described above, for babies with immediate type symptoms to cow's milk.

# How to conduct a cow's milk trial followed by a milk challenge

## For Breast fed babies

If you are only breast feeding, and it is suspected that your baby has symptoms of CMPA, you should stop using any cow's milk and milk containing foods in your diet for up to a four-week trial period. If, without cow's milk in your diet, your baby's symptoms improve, you should then 'challenge' milk by reintroducing cow's milk back into your diet.

The goal is to include milk and milk products at the same quantities that you would usually eat.

- start off with one portion, for example one portion = 150ml cow's milk or one pot of yoghurt or cheese in a sandwich.
- build up to three portions by day three.

If symptoms return, then the baby can be diagnosed with a cow's milk allergy. Cow's milk should then be avoided both in your diet and during weaning onto solids for the baby. You will receive appropriate advice from your health care professional on how to follow a milk free diet.

If, during the milk free trial, the baby still has symptoms, or when milk is added back to your diet and there are no improvements, then cow's milk protein is not the reason for the baby's symptoms, and you should discuss this with your health care professional.

**Note:**

1. while following a milk free diet, you need to take suitable milk free, plant-based milk alternatives, for example oat milk, coconut milk, pea milk and oat based or coconut yoghurts. Also, a calcium and vitamin D supplement may need to be considered. You should discuss this with your health visitor or GP.

2. lactose free milk and lactose free products should be avoided as these are only milk sugar free but do contain milk protein.

## For bottle fed babies

If your baby is bottle fed, a suitable milk free formula will be prescribed and should be trialled for up to four weeks. After this you should do a challenge with standard formula, for example your baby's usual shop bought formula milk.

Occasionally, some babies may refuse or not take enough of the new formula. This is often related to the change in taste. If this happens, try to gradually introduce the new formula by mixing it with your baby's standard formula. You should start with 1oz of new formula and increase by 1oz per bottle each day until your baby is drinking the new formula.

If after four weeks your baby's symptoms resolve on the new milk free formula, it is then important to 'challenge' the milk free trial. You can do this by adding cow's milk based standard formula back into the baby's diet again.

## The milk challenge:

This is done by reintroducing standard formula into your baby's diet using the following method:

| Days | Instructions |
|---|---|
| Day one | Replace one scoop of allergy formula for a scoop of cows' milk infant formula into each bottle. |
| Days two to seven | Each day, increase the number of scoops of standard formula in each bottle. Continue to replace one scoop each day until all bottles have moved across to standard formula. |

From day two onwards,

| Days | Volume of boiled water | Hypoallergenic Formula No. of Scoops | Cows' Milk Infant Formula No. of Scoops |
|---|---|---|---|
| Day two | 180mls (6oz) | Four | Two |
| Day three | 180mls (6oz) | Three | Three |
| Day four | 180mls (6oz) | Two | Four |
| Day five | 180mls (6oz) | One | Five |
| Day six | 180mls (6oz) | none | Six |

Continue with this challenge if your child is symptom-free. If the symptoms return, **STOP** the reintroduction. You should then only give your baby the prescribed formula again and speak to your healthcare professional. Your child's symptoms should settle within a few days and the diagnosis of cow's milk allergy is now confirmed.

If you notice symptoms that aren't specific, for example unsettledness, you should continue with the challenge for a further two to three days. This will ensure the symptoms are happening more than once (reproducible). As we all know, babies can be unsettled for so many reasons. By waiting to see if the symptoms continue, this ensures we are not restricting your child's diet unnecessarily.

If symptoms return, stop the milk challenge. The baby will be diagnosed with a delayed cow's milk allergy, and you should continue with the cow's milk free formula. The weaning diet should also be completely milk free. A referral to a dietitian should be made for further information on the milk free diet.

If, during the milk free trial, the baby remains symptomatic or unwell, please discuss with your health visitor or GP. It is unlikely that cow's milk protein is the problem.

Also, if after the four-week trial, when cow's milk-based formula is added back into the bottles and you see no difference in symptoms, then cow's milk protein is not the reason for the baby's symptoms and further help/assessment should be sought.

If there is no return of symptoms after one full bottle of cow's milk formula in the morning, you can give your child cow's milk formula in all other bottles.

## Formulas which should not be used:

- Lactose free (LF) formula, for example, SMA® LF is not suitable to use for either the milk free trial or for a milk free diet.
- Soya formula, for example, SMA® Wysoy should also be avoided, as some babies with CMPA will also react to soya formula.
- Furthermore, soya formula is not recommended for babies under six months of age.
- Goat and sheep milk formulas are not recommended as the protein within them is like cow's milk.

## The milk free diet:

If a diagnosis of CMPA has been made, then it is important that you follow a milk free diet.

A referral to a dietitian should be made via your Health Visitor or GP.

Further information is also available on the British Dietetic Association website: **bda.uk.com/resource/milk-allergy**

# More Information:

This document has been created to support children and young people who have been diagnosed with a serious food allergy by the Children and Young People's Allergy Network Scotland (CYANS).

For more information on the different types of allergens please visit our website at **cyans.scot.nhs.uk**, or for further information on CYANS or to give any feedback on this leaflet, please contact **nss.cyans@nhs.scot**

If you require an alternative format, please contact **NSS.EqualityDiversity@nhs.scot**

Telephone 0131 275 6000

BSL ContactScotlandBSL **Contact Scotland (contactscotland-bsl.org)**

# School/Nursery

Leaving your child in the care of another person, whether that is a family member or a nursery/school, can feel scary. Most of the time they will be happy to work with you to keep your child safe, which should include the details of what they can and can't eat, what an allergic reaction might look like and how to manage it (including having an allergy plan and allergy medicines).

Most local authorities will ask for information from your health care professional about the allergy or allergies. You should aim to have a discussion with the carer, nursery or school before their first day.

Further advice is at the **CYANS website**.

If you require further information, please contact **nss.cyans@nhs.scot**