

**Mild to Moderate
Non-IgE-mediated CMA**

Mostly 2-72 hrs. after ingestion of Cow's Milk Protein (CMP)
Formula fed, exclusively breast fed or at onset of mixed feeding

Usually several of these symptoms will be present

Treatment resistance e.g. to atopic dermatitis or reflux, increases likelihood of allergy

Gastrointestinal

Irritability - 'Colic'
Vomiting - 'Reflux' - GORD
Food refusal or aversion
Diarrhoea-like stools
- loose and/or more frequent
Constipation – especially soft stools, with excessive straining
Abdominal discomfort, painful flatus
Blood and/or mucus in stools in an otherwise well infant

Skin

Pruritus (itching), Erythema (flushing)
Non-specific rashes
Moderate persistent atopic dermatitis



Cow's Milk Free Diet
Extensively Hydrolysed Formula – eHF
Or – Advise exclusively breast feeding mother to exclude all CMP from her own diet and to take daily Calcium and Vit D
See Management Algorithm

**Severe
Non-IgE-mediated CMA**

Mostly 2-72 hrs. after ingestion of Cow's Milk Protein (CMP)
Formula fed, exclusively breast fed or at onset of mixed feeding

One or more of these **Severe** and **Persisting** symptoms:

Gastrointestinal

Diarrhoea, vomiting, abdominal pain, food refusal or food aversion, significant blood and/or mucus in stools, irregular or uncomfortable stools
+/- Faltering growth

Skin

Severe atopic dermatitis +/- Faltering Growth



Cow's Milk Free Diet
**Amino Acid Formula
AAF**

Or-Advise exclusively breast feeding mother to exclude all Cows Milk Protein from her own diet and to take daily supplements of Calcium and Vit D according to local recommendations

Ensure:
Urgent referral to local paediatric allergy service
Urgent dietetic referral

**Severe
IgE CMA
ANAPHYLAXIS**

Immediate reaction with severe respiratory and/or CVS signs and symptoms.
(Rarely a severe gastrointestinal presentation)
Emergency Treatment and Admission

**Mild to Moderate
IgE-mediated CMA**

Mostly within minutes (may be up to 2 hrs.) after ingestion of Cow's Milk Protein (CMP)
Mostly formula fed or at onset of mixed feeding

One or more of these symptoms:

Skin – one or more usually present

Acute pruritus, erythema, urticaria, angioedema
Acute 'flaring' of persisting atopic dermatitis

Gastrointestinal

Vomiting, diarrhoea, abdominal pain/colic

Respiratory

Acute rhinitis and/or conjunctivitis



Cow's Milk Free Diet
Initial 1st. choice

Extensively Hydrolysed Formula - eHF

Soy may be used in some settings if not sensitised
Or-Advise exclusively breast feeding mother to exclude all Cow's Milk Protein from her own diet and to take daily supplements of Calcium and Vit D according to local recommendations

Initial IgE testing needed

If diagnosis confirmed (which may require a Supervised Challenge in a minority of cases) :
Follow-up with serial IgE testing and later Planned Challenge to test for acquired tolerance

Dietetic referral required

If competencies to arrange and interpret testing are not in place - early referral to local paediatric allergy service is advised

Exclusively Breastfeeding

Strict exclusion of cow's milk containing foods from maternal diet

Maternal daily supplements of Calcium and Vit D according to local recommendations
Refer to dietitian - a maternal substitute milk should be advised
If atopic dermatitis or more severe gut symptoms – consider egg avoidance as well
An agreed Elimination Trial of up to 4 weeks - with a minimum of 2 weeks

No Clear Improvement

Clear Improvement - need to confirm Diagnosis

But - CMA still suspected:

Consider excluding other maternal foods e.g. egg
Refer to local paediatric allergy service

CMA no longer suspected:

Return to usual maternal diet
Consider referral to local general paediatric service if symptoms persist

Home Reintroduction: Mother to revert to normal diet containing cow's milk foods over period of 1 week - to be done usually between 2-4 weeks of starting Elimination Trial

No return of symptoms
NOT CMA - normal feeding

Return of symptoms

Symptoms do not settle

Exclude cow's milk containing foods from maternal diet again
If symptoms clearly improve:
CMA NOW CONFIRMED
If top-up formula feeds should later be needed - eHF may well be tolerated:
If not - replace with AAF

Formula Feeding or 'Mixed Feeding' (Breast and Formula)

Strict cow's milk protein free diet

Formula feeding only - Trial of an **Extensively Hydrolysed Formula (eHF)** in infant
Mixed feeding - If symptoms only with introduction of top-up feeds - Replace with eHF top-ups - Mother can continue to consume cow's milk containing foods in her diet

If weaned - may need advice and support from dietitian
An agreed Elimination Trial of up to 4 weeks - with a minimum of 2 weeks

Clear Improvement - need to confirm Diagnosis

No Clear Improvement

Home Reintroduction:

Using cow's milk formula

To be done usually between 2-4 weeks of starting Elimination Trial

Return of symptoms

No return of symptoms
NOT CMA - normal feeding

Return to the eHF again
If symptoms clearly improve:
CMA NOW CONFIRMED
Ensure support of dietitian

Symptoms do not settle

But - CMA still suspected:

Consider initiating a trial of an **Amino Acid Formula (AAF)**
Refer to local paediatric allergy service

CMA no longer suspected:

Unrestricted diet again
Consider referral to local general paediatric service if symptoms persist

Cow's milk free diet until 9-12 months of age and for at least 6 months – with support of dietitian

A planned Reintroduction or Supervised Challenge is then needed to determine if tolerance has been acquired
Performing a Reintroduction versus a Supervised Challenge is dependent on the answer to the question:
Does the child have **Current Atopic Dermatitis** or **ANY history at ANY time of immediate onset symptoms** ?

No Current Atopic Dermatitis

And no history at any time of immediate onset symptoms
(No need to check Serum Specific IgE or perform Skin Prick Test)

Reintroduction at Home – using a MILK LADDER
To test for Acquired Tolerance

And still no history at any stage of immediate onset symptoms
Reintroduction at Home - using a MILK LADDER
To test for Acquired Tolerance

Current Atopic Dermatitis

Check Serum Specific IgE or Skin Prick Test to cow's milk

Negative Positive

History of immediate onset symptoms at any time

Serum Specific IgE or Skin Prick Test needed

Negative

Liaise with local Allergy Service Re: Challenge

Positive or

Tests not available

Refer to local paediatric allergy service
(A **Supervised Challenge** may be needed)