Infant reflux, milk allergy and vomiting

A practical guide for parents: what is common, what needs assessment.

Spitting up is often normal

Milk coming back up after feeds is common while the valve between the food pipe and stomach matures. A baby who feeds comfortably, grows well and is otherwise well usually has ordinary reflux. It commonly improves during the first year. The amount on a cloth can look larger than it is.

When is it more than ordinary reflux?

Reflux disease means reflux is causing important problems, such as feeding difficulty, poor growth or injury to the food pipe. Crying, back arching or poor sleep alone do not prove acid disease or milk allergy. “Silent reflux” is not a reliable explanation for every unsettled baby.

Could it be cow’s milk protein allergy?

Cow’s milk protein allergy (CMPA) is an immune reaction to milk protein. Vomiting may occur, sometimes with other symptoms. Reflux and allergy can look similar, but most babies who spit up do not have CMPA. The assessment should also consider feeding mechanics, infection and anatomical problems.

! RED FLAGS - do not assume this is reflux Call 000: breathing difficulty, blue colour, collapse, or a sudden floppy/unresponsive baby. Follow the prescribed adrenaline plan if anaphylaxis is suspected. Urgent assessment: green vomit; blood or coffee-ground material in vomit; a swollen or tender abdomen; repeated forceful/projectile vomiting; very few wet nappies; inability to keep feeds down; marked lethargy; or fever of 38°C or more in a baby under 3 months. Prompt clinical review: poor weight gain, ongoing feed refusal, choking with feeds, blood in stool, persistent diarrhoea or worsening/new vomiting. New onset after 6 months or persistence beyond 12-18 months deserves reassessment.

Understanding milk allergy

Protein allergy is different from lactose intolerance.

Immediate allergy - usually within minutes to 2 hours

Hives, swelling, vomiting, wheeze or breathing problems soon after milk suggest an immediate, IgE-mediated reaction. Targeted skin-prick or specific-IgE blood tests may help, interpreted alongside the history. A positive test alone does not prove clinical allergy.

Delayed allergy - hours to days

Non-IgE allergy can cause gastrointestinal symptoms. Some babies have blood-streaked stools; others have more significant diarrhoea, vomiting or poor growth. Symptoms alone do not confirm allergy; skin and blood tests often do not detect this type.

FPIES: an important vomiting pattern

! Food protein-induced enterocolitis syndrome (FPIES) can cause repeated vomiting about 1-4 hours after a trigger, with pallor and lethargy, sometimes later diarrhoea. It can cause shock, usually without hives or wheeze. Severe episodes need urgent care; food challenges need a specialist plan.

How is delayed CMPA confirmed?

The clinician may recommend a 2-4 week milk-protein elimination trial, with a clear symptom target, followed by planned reintroduction to see whether symptoms recur. Improvement alone is not enough. Immediate reactions, FPIES or severe disease require supervised assessment, not a home challenge.

If your baby is breastfed

Continue breastfeeding. Ordinary reflux does not require maternal dairy restriction. Suspected CMPA may warrant a short maternal dairy-free trial and planned reintroduction. A dietitian protects calcium, vitamin D and nutrition. Do not remove soy or multiple foods automatically.

> Lactose is milk sugar; CMPA concerns protein. Lactose-free cow's milk formula does not treat CMPA. IgG "food intolerance" panels, hair tests and routine stool tests do not establish CMPA.

Formula choices at a glance

Choose for the diagnosis and the baby's needs - not just the label on the tin.

Formula type	Role and key limitation
Standard / anti-reflux (AR)	Standard formula suits most babies without allergy. Thickened AR formula may reduce visible spit-up, but usually contains intact milk protein and does not treat CMPA.
Extensively hydrolysed (eHF)	Milk protein is broken into small fragments. A usual first option for many babies with CMPA; some still react. "Partially hydrolysed" is different.
Amino acid (AAF)	Uses individual protein building blocks. Used for severe allergy, significant nutritional problems or failure of an appropriate first-line formula, according to specialist advice.
Hydrolysed rice-protein	A nutritionally complete specialised infant formula, not rice drink. An alternative for selected babies; product-specific evidence and growth matter. Avoid with rice allergy/FPIES.
Soy infant formula	A possible option generally after 6 months if soy is tolerated. It contains intact soy protein; some milk-allergic babies also react to soy. Not the same as soy drink.
Goat / sheep / A2 / lactose-free	Not suitable substitutes for treating CMPA. Related mammal proteins can cross-react; A2 and lactose-free products still contain cow's milk protein.
"Comfort" / partially hydrolysed	Protein is not broken down enough to reliably treat CMPA. Marketing terms such as "gentle" are not evidence of suitability for a diagnosed allergy.

i Before 12 months: ordinary rice, oat, nut or soy drinks and homemade formulas are not replacements for breast milk or nutritionally complete infant formula. Use the current Australian formula guide and your clinician's exact product recommendation.

ASCIA - current Australian milk substitutes guide ↗

What does the formula evidence show?

Evidence differs between formula types and between individual products.

eHF and amino acid formula

eHF has the longest-established guideline role for many formula-fed infants with CMPA. It is milk-derived, but extensive breakdown makes it tolerable for most affected babies. AAF removes milk-protein fragments and is used when severity or response warrants it. The most expensive formula is not automatically the best starting choice.

Rice-protein formula

Specialised rice formulas have evidence of tolerance and adequate growth in selected infants with CMPA. Study numbers are smaller than for established eHF products, and evidence in delayed allergy is limited. They are not proven superior for all babies. Poor growth or multiple delayed food allergies may favour eHF or AAF.

ASCIA currently lists Novalac Allergy as having product-specific hypoallergenicity and growth studies. It lists Alula Allergy with batch contamination testing but without published product-specific hypoallergenicity or growth studies in its guide. This does not mean all rice formulas have identical evidence. Use the live guide for updated products.

Soy formula

Soy infant formula can work after 6 months if soy is tolerated. It is not usually the first choice for younger infants. Delayed allergy or FPIES may require supervised soy introduction.

Why not goat's milk?

Goat's milk formula can meet infant nutrition standards for babies without allergy, but its proteins closely resemble cow's milk proteins. It is not a hypoallergenic treatment and commonly cross-reacts in CMPA. A2 milk is likewise not an allergy treatment.

> **i** Choose for allergy type, growth, tolerance and access. Comparative evidence is limited. Formulas used to treat allergy are not necessarily proven to prevent it.

ESPGHAN 2024 - cow's milk allergy position paper ↗

Helping a baby with reflux

Start with feeding support and safe sleep; medicines have a limited role.

Check the feed before changing the formula

A clinician or feeding professional can observe latch, milk flow, bottle teat and volumes. Smaller, more frequent feeds may help if the baby is being overfed, while protecting total nutrition. Mix formula exactly as instructed; never dilute it or add extra powder. Avoid repeated unsupervised switches.

Thickening and keeping upright

Thickened feeds can modestly reduce visible regurgitation in some bottle-fed babies; they do not establish the cause or treat milk allergy. Use an age-appropriate product and advice, particularly in premature babies. Holding upright after feeding while awake may help. Do not routinely stop direct breastfeeding to thicken feeds.

! SAFE SLEEP - even with reflux Put your baby on their back on a firm, flat sleep surface. Do not raise the cot mattress, use wedges or positioners, or put a baby on their side or tummy to sleep for reflux. Upright holding is only while an adult is awake and supervising.

Acid suppression: when might it help?

Medicines such as omeprazole reduce acidity; they do not stop milk moving backwards. They are not routine treatment for spit-up, crying, arching or sleep difficulties in a thriving infant. A clinician may prescribe a short, reviewed course for convincing reflux disease or acid-related injury. Potential harms include infection risk.

Other products and medicines

Alginates may reduce spit-up in selected babies, but evidence is limited and ongoing use needs review. Do not combine an alginate with thickened feeds unless explicitly advised. Domperidone, metoclopramide and other prokinetics are not routine infant reflux treatment. Probiotics and herbal products are not established treatments for infant reflux or CMPA.

Red Nose - sleeping safely with reflux ↗

When are tests or referrals needed?

Investigate a concern, rather than trying to prove ordinary spit-up.

Imaging: look for anatomy when indicated

! Progressively forceful/projectile vomiting in a young infant may need an ultrasound for pyloric stenosis. Green vomiting needs urgent assessment for obstruction; clinicians may arrange an upper gastrointestinal contrast study to look for malrotation. A contrast study shows anatomy and is not a routine test to diagnose reflux.

Endoscopy: examine the lining and take biopsies

Gastroscopy may be important with unexplained bleeding, persistent significant feeding difficulty, poor growth or symptoms not responding to an appropriate plan. It can assess inflammation or an alternative such as eosinophilic oesophagitis. It is not routinely needed for simple reflux or uncomplicated delayed CMPA; anaesthesia and procedural risks are weighed against benefit.

pH-impedance and swallow assessment

A specialist may use pH-impedance to measure reflux and its relationship to symptoms in selected difficult cases. It is not a routine test for crying. Coughing, choking or breathing changes during feeds may instead warrant feeding/swallow assessment; reflux should not be assumed to explain aspiration or breathing pauses.

When should an allergy specialist be involved?

Immediate hives, swelling or respiratory symptoms after milk; anaphylaxis; suspected FPIES; multiple food reactions; severe or uncertain allergy; or a need for a supervised challenge. The specialist arranges targeted tests and an action plan where appropriate. Negative skin/blood tests do not rule out delayed allergy.

When should gastroenterology or dietetics help?

Persistent vomiting, growth concerns, unexplained bleeding, feeding refusal or failure of a well-delivered treatment trial favour paediatric or gastroenterology review. A paediatric allergy dietitian supports formula choice, maternal exclusion diets, solids and growth. Feeding support is helpful if meals have become stressful.

Follow-up and reliable resources

Keep a clear plan and check growth, feeding and response.

Agree on the next step

Write down the symptom being treated, chosen feed or medicine, trial duration and review date. Record feeding tolerance, wet nappies, stools and weight checks as advised. If a milk-elimination trial helps, ask when and how diagnosis will be confirmed and when tolerance will be reassessed.

Do not challenge milk at home after a serious reaction

A milk ladder can be useful for selected delayed allergies, but is not safe or appropriate for every baby. Immediate allergy and FPIES often require specialist-led reintroduction. Many children outgrow milk allergy, but timing and method must be individualised.

Parent information - clickable links

- ASCIA - cow's milk allergy questions and answers ↗
- Raising Children Network - reflux and reflux disease ↗
- Red Nose - safe sleep for babies with reflux ↗
- Allergy & Anaphylaxis Australia - family support ↗

Guidelines and evidence

- RCH infant reflux guideline - updated April 2026 ↗
- ASCIA - formula types, products and indications ↗
- ESPGHAN 2024 - cow's milk allergy ↗
- NASPGHAN/ESPGHAN reflux guideline - practical summary ↗

i For more parent resources and information rohanmalik.com.au Dr Rohan Malik, FRACP | Paediatric Gastroenterologist



Your feedback is welcome

If you would like to leave a Google review about your experience, scan the QR code.

Please avoid including your child's name or private health information in a public review.