## **Algorithm for Formula-Fed Infants\***



- \* ~1/5 of the lactose of a full-lactose, routine, milk-based formula.
   \* For babies who spit up more than 4 times per day.

- § 17% less iron than Enfamil A+. # LGG is a registered trademark of Chr. Hansen A/S.

Cause of concerns should be assessed before switching formulas to evaluate whether other strategies may help alleviate concerns. For breastfed infants, please visit: https://www.hamiltonhealthsciences.ca/wp-content/uploads/2019/08/CowMilkProteinAllergyWhatToEatBreastfeeding-trh.pdf

## Signs and Symptoms Related to CMPA

	Infants and Toddlers	Older Children	Immediate Reaction (within 1 minute to 2 hours after ingesting CMP)
Digestive	<ul> <li>Dysphagia</li> <li>Frequent regurgitation</li> <li>Colic, abdominal pain</li> <li>Vomiting</li> <li>Anorexia, refusal to feed</li> <li>Diarrhea ± intestinal protein or blood loss</li> <li>Constipation ± perianal rash</li> <li>Failure to thrive</li> <li>Occult blood loss</li> <li>Iron-deficiency anemia</li> </ul>	<ul> <li>Dysphagia</li> <li>Food impaction</li> <li>Regurgitation</li> <li>Dyspepsia</li> <li>Nausea, vomiting</li> <li>Anorexia, early satiety</li> <li>Diarrhea ± intestinal protein or blood loss</li> <li>Constipation</li> <li>Abdominal pain</li> <li>Occult blood loss</li> <li>Iron-deficiency anemia</li> </ul>	• Vomiting
Respiratory	<ul> <li>Runny nose</li> <li>Wheezing</li> <li>Chronic coughing (all unrelated to infections)</li> </ul>	<ul> <li>Runny nose</li> <li>Wheezing</li> <li>Chronic coughing (all unrelated to infections)</li> </ul>	<ul> <li>Wheezing or stridor</li> <li>Breathing difficulties</li> </ul>
Skin	<ul> <li>Urticaria (unrelated to infections, drug intake, or other causes)</li> <li>Atopic eczema</li> <li>Angioedema (swelling of lips or eyelids)</li> </ul>	<ul> <li>Urticaria (unrelated to infections, drug intake, or other causes)</li> <li>Atopic eczema</li> <li>Angioedema (swelling of lips or eyelids)</li> </ul>	• Urticaria • Angioedema
General	<ul> <li>Anaphylaxis</li> <li>Shock-like symptoms with severe metabolic acidosis, vomiting, and diarrhea (FPIES)</li> </ul>	• Anaphylaxis	• Anaphylaxis • FPIES

CMPA=cow's milk protein allergy

FPIES=food protein-induced enterocolitis syndrome.

Adapted from Koletzko S et al. Diagnostic Approach and Management of Cow's-Milk Protein Allergy in Infants and Children: ESPGHAN GI Committee Practical Guidelines. JPGN. 2012;55:2.

**References:** 

Vanderhoof et al. *Clin Pediatr.* 2003;42:483-495.
 Lightdale JR et al. Gastroesophageal Reflux: Management Guidance for the Pediatrician. *Pediatrics.* 2013;131:e1684–e1695.