

# LACTOSE: PREFERRED CARBOHYDRATE FOR INFANTS, EVEN THOSE WITH COW'S MILK ALLERGY

#### THE IMPORTANCE OF LACTOSE FOR INFANTS

Breast milk is the gold standard nutrition for all infants, including those with cow's milk allergy (CMA). Lactose is the primary carbohydrate in breast milk and has many benefits.<sup>1</sup> Infants can generally tolerate lactose, as primary lactose intolerance (LI) rarely manifests clinically in children younger than five years of age.<sup>2</sup> LI in children is usually temporary and gets better when the underlying issue is resolved.<sup>2</sup> CMA and LI, although having distinctly different pathophysiology, are often misunderstood to be the same.<sup>23</sup> While the prevalence of CMA in the first year of life is around 2%–3%,<sup>45</sup> primary LI is rarely seen in infants.<sup>2</sup> CMA involves the immune system and is a reaction against the protein of cow's milk, while LI is caused by enzyme deficiency, and is an inability to digest and absorb a carbohydrate in cow's milk.<sup>3</sup>

	Cow's milk allergy <sup>2</sup>	Lactose intolerance <sup>2</sup>
Mechanism	IgE or non-IgE-mediated allergic reaction	Lactase deficiency
Food component involved	Cow's milk protein (protein)	Lactose (carbohydrate)
Age of onset	During 1 <sup>st</sup> year	5-6 years
Dietary management	Cow's milk protein-free diet	Lactose-free diet/low lactose diet

### MANAGEMENT OF CMA

Cow's milk protein avoidance is the mainstay of CMA management.<sup>3</sup> However, there is a perception among parents, and sometimes healthcare professionals, that lactose avoidance may also be needed. Misconceptions between LI and CMA coupled with concerns that trace amounts of cow's milk protein may be present in lactose and trigger CMA symptoms, often lead to the unnecessary prescription of hypoallergenic formulas without lactose for infants with CMA.<sup>26</sup> Adverse reactions to lactose in infants with CMA are not supported by scientific evidence.<sup>7</sup>

#### Dietary restriction of lactose in infants with CMA is not necessary.



## EHFS CONTAINING LACTOSE IN THE MANAGEMENT OF CMA

Extensively hydrolysed formulas (eHF) are recommended for non-breastfed infants with mild to moderate CMA.<sup>27</sup> These formulas have been available and used for many years, both with and without lactose, and both are proven to be effective in the dietary management of infants with CMA. The avoidance of lactose in CMA is unnecessary unless the infant has severe diarrhoea. The latest ESPGHAN guidelines agree that the dietary management of mild to moderate CMA with eHFs containing lactose may be preferable.<sup>7</sup>





# Lactose, a naturally occurring carbohydrate in breastmilk is the preferred carbohydrate in an infant's diet, including for those with CMA.

Learn more about Pepti Syneo for the dietary management of CMA from your local Nutricia representative\*

\*Pepti Syneo is a food for special medical purposes and should only be used under medical supervision, after full consideration of all feeding options by the healthcare professional including breastfeeding.

CMA, cow's milk allergy; CMPA: cow's milk protein allergy; eHF, extensively-hydrolysed formula; ESPGHAN, European Society for Paediatric Gastroenterology Hepatology and Nutrition; FAO, Food and Agriculture Organization; LI, lactose intolerance; WHO, World Health Organization. References: 1. Francavilla R, et al. Pediatr Allergy Immunol 2012;23:420-7. 2. Heine RG, et al. World Allergy Organ J. 2017;10(1):41. 3. Costanzo MD, Canani RB. Ann Nutr Metab 2018;73(suppl 4):30–37. 4. Schoemaker AA, et al. Allergy. 2015 Aug;70(8):963-72. 5. Luyt D, et al. Clin Exp Allergy. 2014;44(5):642-72. 6. Wauters L, et al. J Pediatr Gastroenterol Nutr. 2016;62(5):765-70. 7. Vandenplas Y, et al. J Pediatr Gastroenterol Nutr. 2016;62(5):765-70. 7. Vandenplas Y, et al. J Pediatr Gastroenterol Nutr. 2016;62(5):765-70. 7. Vandenplas Y, et al. J Pediatr Gastroenterol Nutr. 2016;62(5):765-70. 7. Vandenplas Y, et al. J Pediatr Gastroenterol Rutr. 2023 Jul 26. B. Codex alimentarius: Standards for infant formula and formulas for special medical purposes for infants (Revised in 2007). 9. Romero-Velarde E, et al. Nutrients 2019;11(11):2737. 10. Venter C, et al. World Allergy Organ J. 2024;17:100931.