

C-section causes a disruption in the gut microbiota of infants.

39% OF ALL BABIES BORN IN AUSTRALIA ARE BORN BY C-SECTION³.

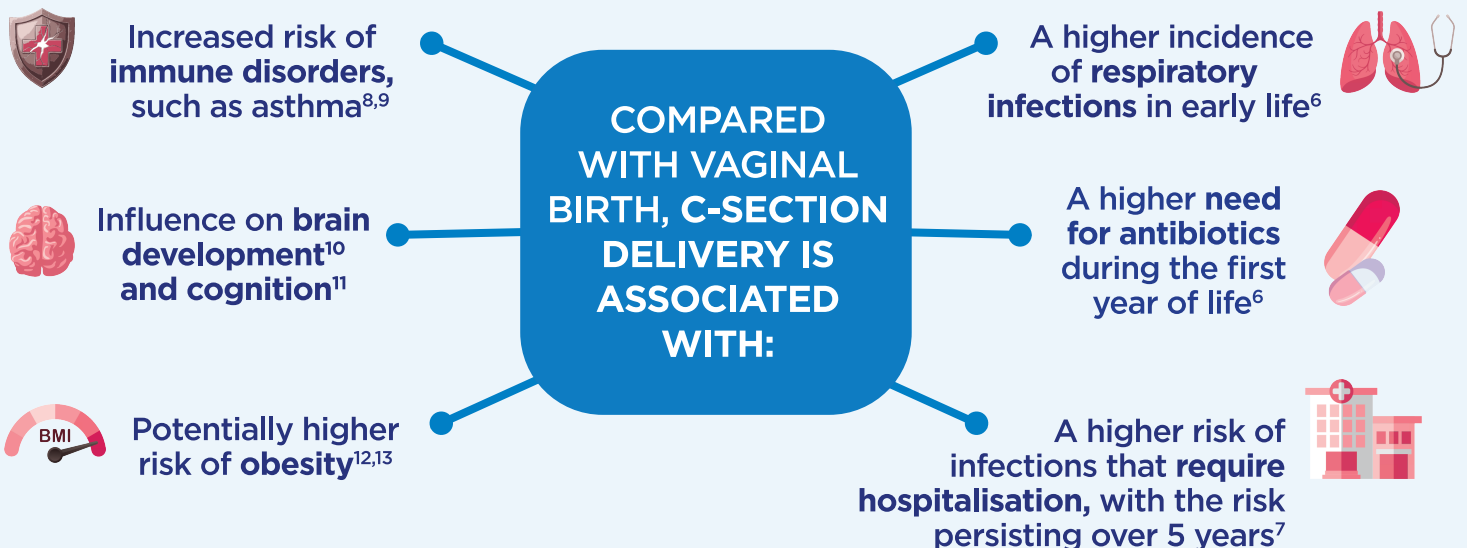
The first 1000 days of life represent a unique window of opportunity to shape immune health. A balanced gut microbiota is key for the development of a healthy immune system¹.

Caesarean section (C-section) is one of the most significant causes of disrupted microbiota development in infants due to reduced mother-infant transmission of beneficial bacteria².

How does mode of delivery affect microbiota colonisation in an infant's gut?

Mode of delivery is a major factor that influences initial gut microbiota colonisation⁴:

- Vaginally delivered infants are exposed to maternal vaginal and faecal microbes which then colonise in the gut⁴;
- Babies delivered by C-section are more likely to be colonised by maternal skin and environmental microbes⁴;
- This gut dysbiosis in C-section can persist for as long as seven years and is associated with higher risk of certain diseases⁵.



For infants with risk factors for gut dysbiosis, it is important to provide nutrition that can restore the gut microbiota and therefore prevent health-related consequences. Dietary intervention shows that positive modulation of the gut microbiome is possible¹⁴.

Gut dysbiosis in C-section-born infants can be corrected in days.

Breast milk is the gold standard in infant nutrition¹⁵. When exclusive breastfeeding is not possible, it is essential that infant formula works towards mimicking human milk as closely as possible.

The prebiotic mixture scGOS/lcFOS (9:1) added to our infant formulas is supported by a strong body of evidence with more than 40 clinical studies¹⁶. This prebiotic is often paired with the probiotic *Bifidobacterium breve*, one of the most predominant bifidobacterial species in human milk^{17,18} and in the gut of healthy breastfed infants^{19,20}.

Chua et al. showed in a randomised, double-blind controlled trial that this specific synbiotic mixture compensated the delayed colonisation of *Bifidobacterium* in infants born by C-section within days¹⁴. This specific mixture resulted in significantly higher levels of *Bifidobacteria*, resembling levels found in vaginally-born infants.

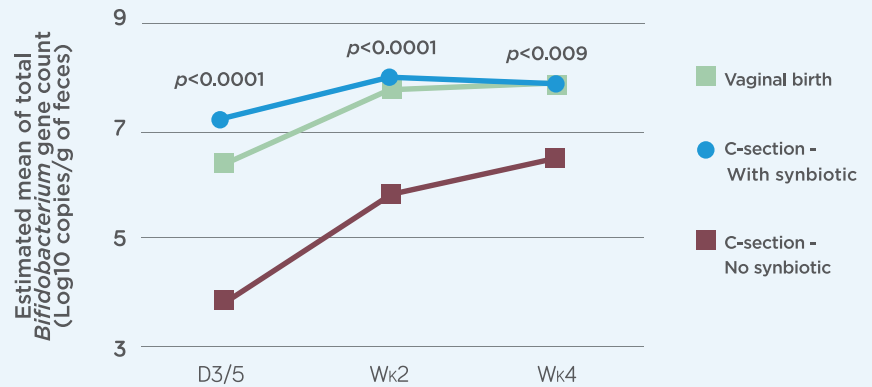
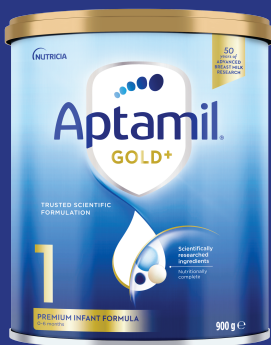


Figure 1. *Bifidobacteria* levels in C-section-born infants randomised to receive synbiotic (n=52) or control formula (n=50) from day 3/5 to week 4, versus vaginally-born reference. Adapted from Chua et al 2017¹⁴.



Aptamil Gold+ contains a unique prebiotic and probiotic blend which is proven to bring the gut microbiota of C-section born infants who consume formula closer to vaginally born infants within days[†].

[†]Based on total scGOS/lcFOS (9:1) and *Bifidobacterium breve* M-16V received by formula-fed infants as per Aptamil Gold+ Stage 1 feeding guides. Data on file.

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Breast milk is best for babies. A healthy diet is important for breastfeeding. A decision not to breastfeed, or partial bottle feed, may reduce milk supply making it difficult to reverse. Use formula as directed.

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