



## KNOWLEDGE on Tap

### The Development of the Gut Microbiota

The bacterial colonization of the gastrointestinal tract plays a decisive role in shaping and maturing the immune system during infancy.<sup>1</sup>

- Short-term effects: frequency of infections
- Long-term effects: allergic, metabolic, or inflammatory diseases

► **Early foundation for future health**



**1** Healthy  
intestinal  
microbiota



**2** Strong  
immune system



**3** Fewer  
infections

### What influences the colonization of the gut?

It begins during birth<sup>2</sup> and can be affected by various factors:

#### Mode of delivery

Unlike **cesarean section**, infants **born vaginally** acquire beneficial bacteria from the mother's birth canal.

#### Medication

Especially the **administration of antibiotics** can disrupt natural colonization.

#### Nutrition

**Human milk** is the best nutrition. It contains **prebiotics and probiotics** and, as a synbiotic food, ensures optimal colonization of the gut.<sup>3</sup>

# Prebiotics and Probiotics in Infant Formula

To support the development of gut microbiota in non-breastfed infants, many formulas contain prebiotics and probiotics. Experts demand that the effects of these products be demonstrated through clinical studies.<sup>4</sup>

## Clinical Studies on GOS and *L. fermentum*

The combination of prebiotic galacto-oligosaccharides (GOS) and probiotic *Limosilactobacillus fermentum* CECT 5716 used in HiPP COMBIOTIC® has been investigated in several clinical studies:

**2012** GOS and *L. fermentum* in infant and follow-on formulas are safe and reduce the risk of respiratory infections and diarrhea.<sup>5,6</sup>

**2015** Long-term study up to age 3 confirms: Synbiotic formulas with GOS and *L. fermentum* are also safe in the long term.<sup>7</sup>

**2023** GOS and *L. fermentum* positively influence gut microbiota, making it similar to that of breastfed infants.<sup>8</sup>

**2024** GOS and *L. fermentum* reduce the risk of lower respiratory tract infections.<sup>9</sup>



## Conclusion

A healthy gut microbiota ensures good health development from the very beginning. Synbiotic infant formulas are safe and can positively influence gut microbiota and the immune system, thereby reducing the number of infections.

Scanning the QR-Code will take you to the references



### Important information:

Breastfeeding is best for babies. Infant formula should only be given upon the advice of paediatricians, midwives or other independent experts.

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Science and nature  
hand in hand

