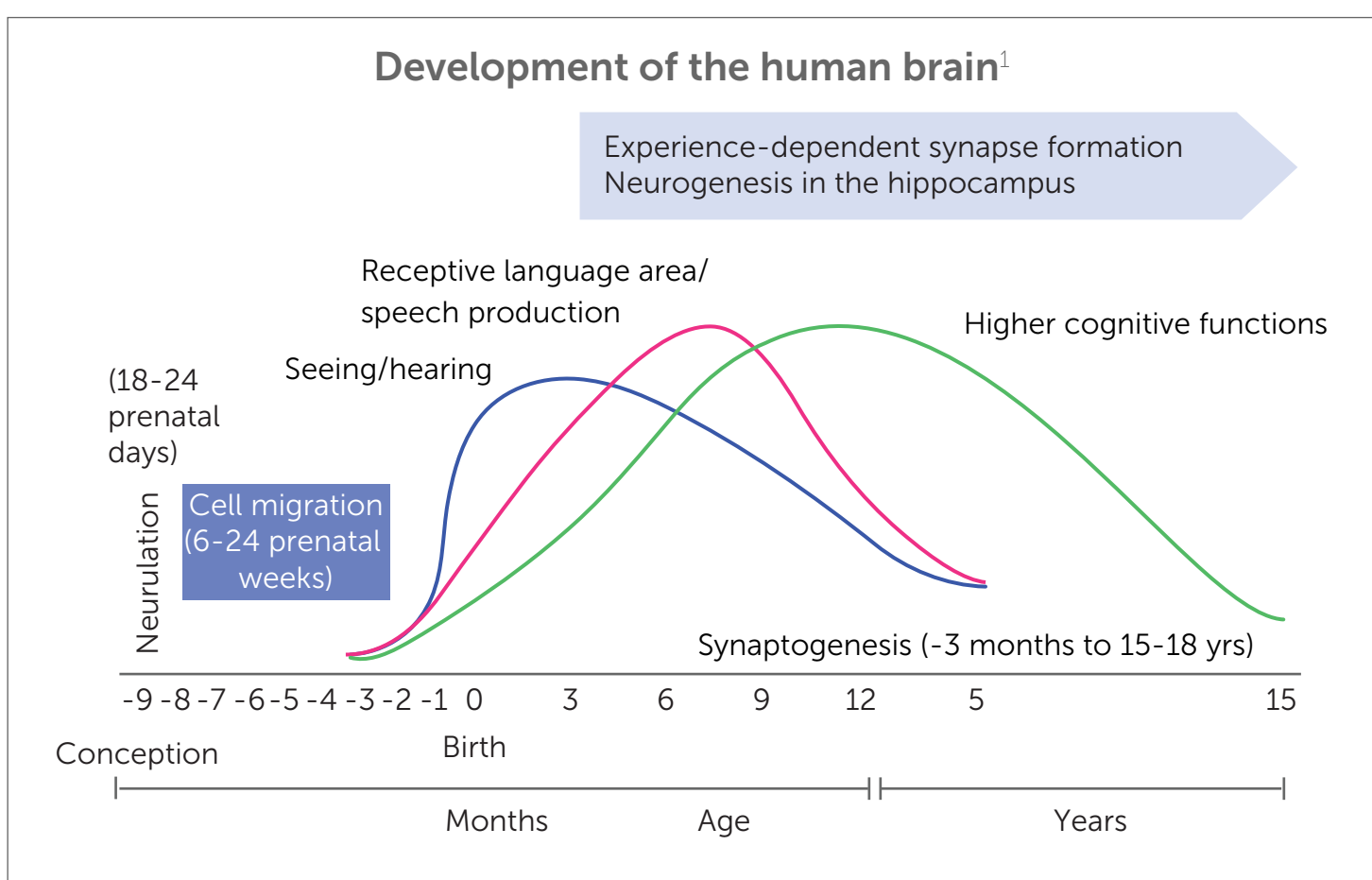


How is Nutrition Associated with Toddler's Development?



Nutrition during early years has a significant effect on the normal growth and development of the brain, and functioning of the immune system.¹⁻⁸

Toddlers experience an enormous brain growth, which impacts their cognitive functions, vision, language skills and motor capabilities^{1-2, 9-10}



Adapted from: Black MM et al, 2016.



By the age of 3 the brain reaches 80% of its adult size¹¹



Adequate nutrition has a significant effect on brain growth and development, influencing the developmental progress of toddlers^{1,9-17}

Specific nutrients play a role in brain and immune development



Brain development and cognition

Role in myelination, contributing to cognitive development^{3,13}

Fe

Neurosecretory factor of Zinc-containing nerve cells¹⁴

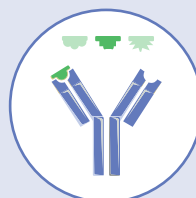
Zn

Contributes to normal brain development¹⁵

DHA

Contributes to normal cognitive and neurological functions¹⁶

Iodine



Normal functioning of the immune system

Vit A

Protects against infections and supports immune barrier functions^{4,18}

Vit C&D

Support innate and adaptive immune functions^{5,6,19}

Zn

Contributes to regulate the intracellular signalling pathway²⁰

Fe

Facilitates growth and differentiation of immune cells²¹



Probiotics
Key modulators of gut microbiota.²²
A healthy microbiota plays a role in development of toddler's immunity²³⁻²⁴

The immune system changes dynamically during the first years of life and undergoes significant maturation, to better support protection against infections^{25,26}

Functional capacity of the immune system appears to be limited²⁵⁻²⁸

↑ Risk of infectious diseases, especially some respiratory infections



↑ Tendency of more inflammatory responses

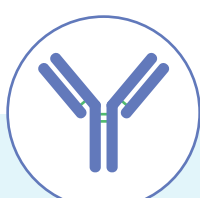
Important factors shaping immunity²⁵⁻²⁸



Development of the acquired immunity



Gut microbiota development



Antigen exposure



Maturation of the innate immunity

Toddlerhood is a crucial stage in life when several key developmental milestones are achieved.¹⁷ Appropriate nutrition supports toddlers' physical growth and brain development, as well as normal functions of their immune system.¹⁻⁹

DHA, docosahexaenoic acid.

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