

Ever Heard of Sphingomyelin?

PARENTING

ARTICLE

MAY 17, 2023

Children learn and develop the most in their childhood years. In fact, it is said that whatever experiences a child has gone through up to the age of 8 has a big impact on his future health, learning and life success¹.

Everyone is born unique, but the one thing that we all have in common is that we are born ready to learn. Our brain grows the fastest from before birth until early childhood¹, so it is crucial to nurture a child's mind in their toddlerhood years.



Amazing facts about brain growth:

- A human's brain starts out being roughly a quarter of the size of the average adult brain².
- It doubles the size in toddlerhood and keeps growing to about 80% of the adult size in the next two years².
- By the age of 5, a child's brain size is nearly full-grown, at about 90% of the adult size².

How Does the Brain Work?

The brain is the command centre of the human body. It comprises different parts - each responsible for different abilities such as movement, language and emotions. We are born with all the brain cells (neurons) that we will need for the rest of our lives and the connection between these cells is what makes our brain work. We are able to move, think and communicate because of these brain connections.

Understanding Brain Connections

Children develop brain connections through everyday experiences. This is why positive reactions are crucial for growing children. The brain connections built in the early years have a big impact on more important, higher-level abilities that are needed as they grow older, such as motivation, self-regulation, problem solving and communication.



Have you noticed how your little one reacts when you pay 100% attention to them? Just talking and playing with them can help them build their confidence and encourage them to play and explore even more. Playing and exploring together with your child is a very helpful way to develop and discover your child's skills and interests, too. Their positive reactions when you read, sing and play with them is a result of a healthy brain development.

Supporting Children's Brain Development

Parents of growing children are always on the lookout for the appropriate nutrients for their little ones, especially when it comes to brain development. So, how can you further support your child's brain development? Well, there is one thing that's been the talk of the (parenthood) town these days, and it's called **sphingomyelin**.

A quick search in the dictionary will tell you that **sphingomyelin** is "a substance which occurs widely in brain and nervous tissue, consisting of complex phosphoryl derivatives of sphingosine and choline".

Too complex? Don't worry, we'll break it down for you.

One of the three major factors that guides brain development is myelination. Myelination is a process where a substance called myelin, that's made up of fatty lipids and proteins, coats the nerve fibre (where messages get transmitted between neurons) in the brain³. This particular "coating" is called the myelin sheath, whereby its integral component is a phospholipid called **sphingomyelin**.

The sphingomyelin-rich myelin sheath.

Phospholipids are key components for neural structure and brain signalling⁴⁻⁶.

To put it simply, **sphingomyelin** is the building block of myelination and supports children's learning^{4/7/8}.

Interesting myelination facts:

- Myelination has been linked with cognitive and motor skills⁹⁻³⁰.
- Myelination speeds up neuron connections, which may benefit a child's cognitive development³¹⁻³³.

Nutrients That Enhance Children's Potential

Sphingomyelin helps brain connections by **10x faster*** and is one of the fundamental nutrients that supports children's brain development.

**vs unmyelinated neuron.*

If you want your little one to experience the goodness of **sphingomyelin**, we have

great news for you. **Sphingomyelin** is now available in children's growing up milk formula formula **S-26 GOLD PROGRESS**

S-26 GOLD[®] PROGRESS[®] is now formulated with innovative ingredients to provide our most advanced formulated milk for children.

S-26 Gold[®] Progress[®] is specially formulated with **sphingomyelin, DHA, 2'-FL and oligofructose**. Support your child's growth with appropriate nutrition and sufficient rest to help him Think Quick and Learn Fast.

References:

1. <https://www.cdc.gov/ncbddd/childdevelopment/early-brain-development.html>
2. <https://www.firstthingsfirst.org/early-childhood-matters/brain-development/>
3. Salzer JL, Zalc B. *Curr Biol*. 2016;26:R971-R975.
4. Henríquez-Henríquez MP, Solari S, Quiroga T, Kim BI, Deckelbaum RJ, Worgall TS. *Front Neurosci*. 2015;9:300.
5. Quarles RH, Macklin WB, Morell. *American Society for Neurochemistry* 2006;p.51-71.
6. Martínez M, Mougan I. *J Neurochem*. 1998;71(6):2528-33.
7. Tanaka K, Hosozawa M, Kudo N, et al. *Brain Dev*. 2013;35(1):45-52.
8. Deoni S, Dean D 3rd, Joelson S, O'Regan J, Schneider N. *Neuroimage*. 2018;178:649-59.
9. Schmithorst et al., 2005
10. Deoniet al., 2016
11. Chevalier et al., 2015
12. Buchelet al., 2004
13. Catani et al., 2007
14. O'Muircheartaigh et al., 2013
15. nagy et al., 2004
16. Beaulieu et al., 2005
17. Short et al., 2013
18. Turkenet al., 2008
19. Bartzokiset al., 2010.
20. Martinez & Mougan 1998
21. Kinney et al., 1994
22. Don et al., 2014
23. Tanaka et al., 2013
24. Bentejacet al., 1988 & 1989
25. Oshidaet al., 2003

26. Vickers et al., 2009
27. Gustavsson et al., 2010
28. Stiles & Jernigan. 2010
29. Prado & Dewey 2014
30. <https://courses.lumenlearning.com/edpsy/chapter/brain-development/>
31. Linderkamp et al (2009).Int. J. ; 21: 4-16.
32. Deoni, S.C et al (2016).Brain Structure Function; 221:1189-1203.
33. Chevalier, N et al (2015).PLOS One:
<https://doi.org/10.1371/journal.pone.0139897>.
34. <https://www.parents.com/toddlers-preschoolers/development/intellectual/fuel-your-childs-desire-to-learn/>
35. <https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health...>

DISCLAIMER: The content is for informational purposes only and is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Always seek the advice of your health professional with any questions you may have regarding a medical condition. Due to unique individual needs, the reader should consult health professional to determine the appropriateness of the information for the reader's situation.