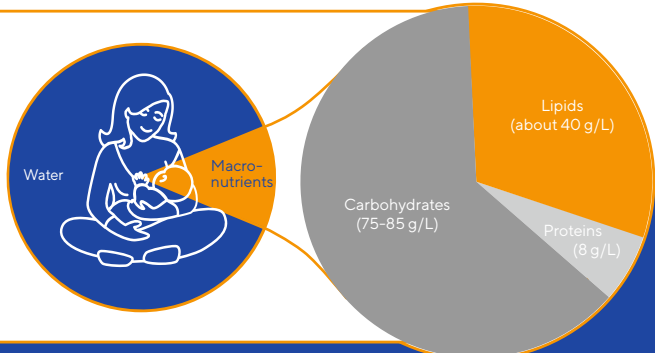


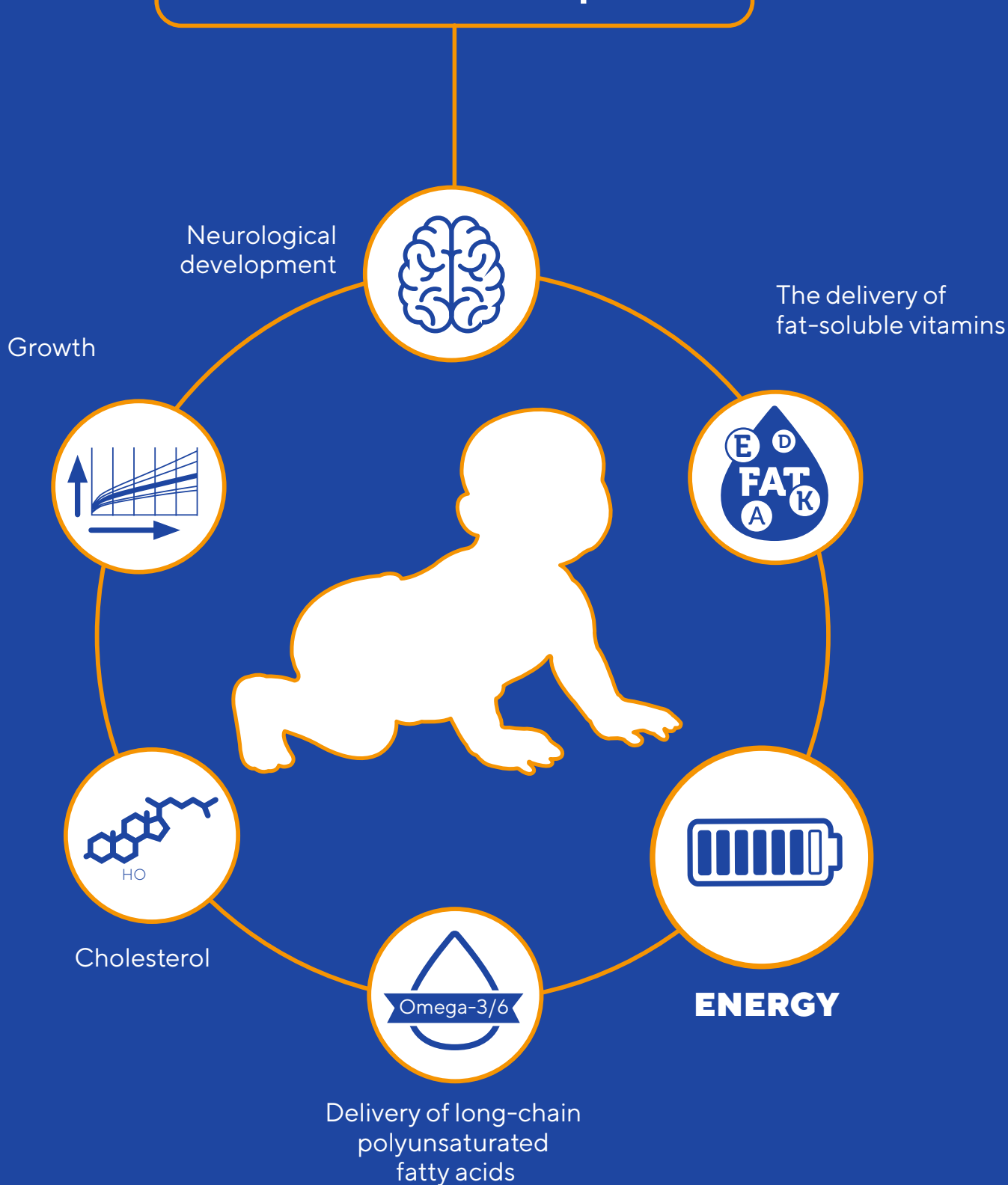
Lipids

Lipids are an important source of energy.

The fatty acid profile in human milk is adapted to an infant's specific needs and therefore has a unique composition throughout the different stages of lactation.



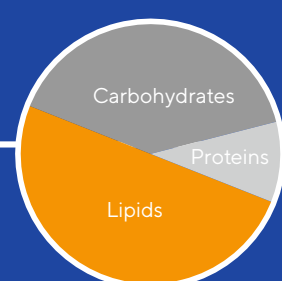
Functionalities of lipids^{1,3}



A mother's diet has an influence on the composition of human milk



The average fat content of human milk is 4% which contributes 40-50% of the calories for the growing infant.^{1,2}



The omega-3 fatty acid DHA is the primary structural component of the human brain, skin and eye⁴

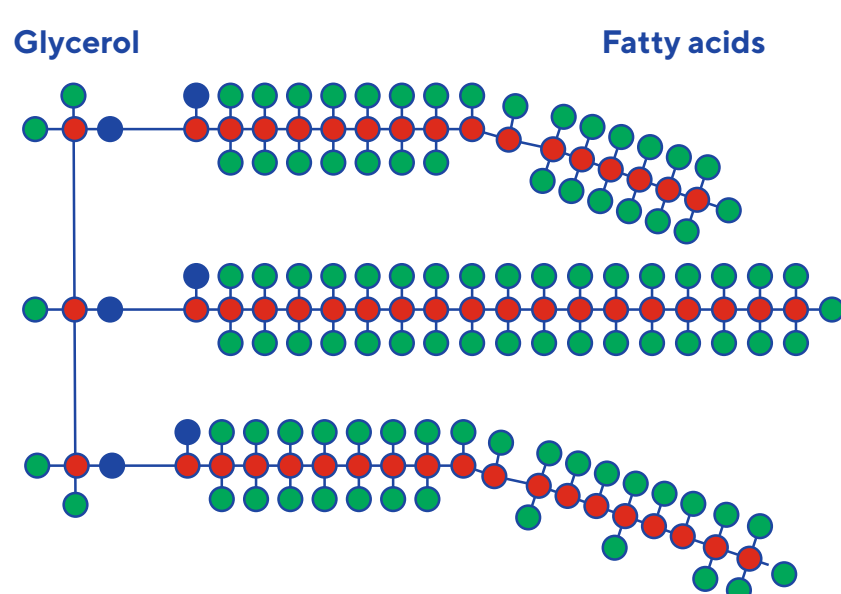
Structure of lipids:

Triglycerides are the major form of dietary lipids.^{5,6,7}

Lipids are mainly composed of:

- Carbon
- Hydrogen
- Oxygen

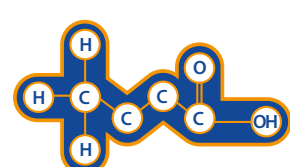
Triglycerides are composed of two building blocks:



Fatty acids can be classified in different ways³

In length

Based on the number of carbon atoms



Short chain (<6 carbon atoms)



Medium chain (6-12 carbon atoms*)

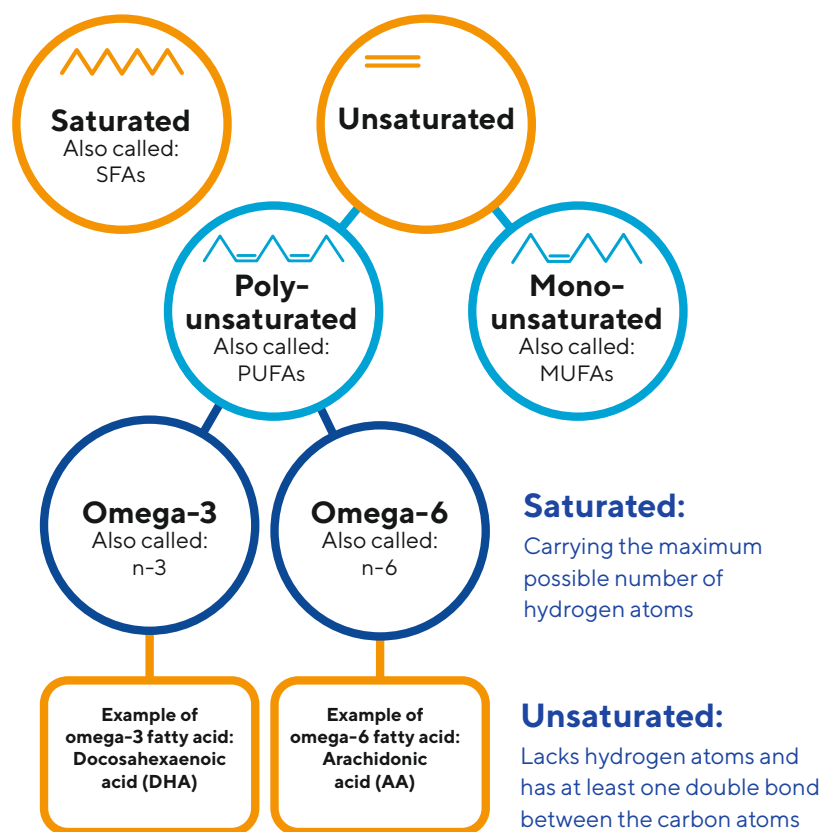


Long chain (>12 carbon atoms*)

* some publications indicate that C14 is also a medium chain fatty acid.

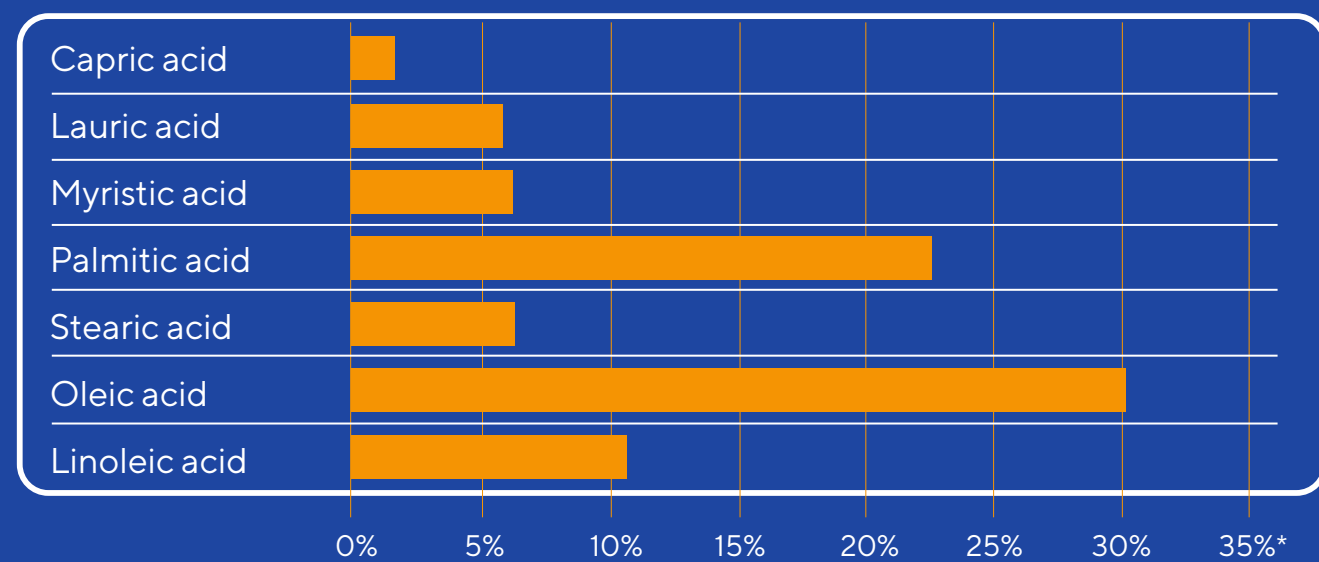
Based on saturation

The number of double bounds within a fatty acid



The fatty acid profile is tailored to the nutritional needs of an infant and may thus differ for each stage of lactation.^{1,8,9,10}

An example of a fatty acid profile in human milk:⁷



*as a percentage of the total fatty acid composition in human milk until the age of six months.



Would you like to learn more about human milk?

[click here](#)



The fatty acid composition of Asian mothers' breast milk is higher in linoleic acid compared to the fat composition of that of Caucasian mothers, which is higher in oleic acid.¹²

References: 1: Lawrence & Lawrence 2011. 2: Martinez-Ferez 2006. 3: Whitney & Rofles 2008. 4: Lauritzen et al. 2016. 5: Trugo 2003. 6: Washington 2012. 7: Bayly 2014. 8: Szabó et al. 2010. 9: Fields et al. 2016. 10: The Early Nutrition eAcademy 2020. 11: Lubetzky, Sever et al. 2015. 12: Miliku et al. 2019.

Disclaimers:

- Ausnutria acknowledges that breastfeeding is the best food for infants aged 0-6 months and supports prolonging breastfeeding up to 24 months (age 2).
- For health care professionals only.