

Special Issue

Health Significance of Insufficient Dietary Choline During the Human Lifecycle

Message from the Guest Editor

The findings on choline's universal relevance have so far had no impact on clinical medicine. This means choline's relevance to (1) parenchymal growth and maintenance, (2) one-carbon metabolism including epigenetics, and (3) its interrelation with vitamins (folate and cobalamin) and polyunsaturated fatty acids (arachidonic and docosahexaenoic acid) has not gained broad attention. Hence, larger clinical trials are still missing. This applies to (1) preterm infant development; disturbed enterohepatic cycles of bile (phosphatidyl)choline (2) in patients with exocrine pancreatic insufficient cystic fibrosis or (3) short bowel disease and small intestinal bacterial overgrowth; and (4) total parenteral nutrition (TPN) receiving regimens devoid of free choline. Additionally, (5) choline deficiency due to inferior nutrition habits and (6) genetic heterogeneity in endogenous choline synthesis by phosphatidylethanolamine-N-methyl transferase (PEMT) may impact clinical medicine. In this Special Issue, the (potential or verified) critical role of choline will be evaluated, with special focus on preterm infants, cystic fibrosis, TPN, and short bowel disease.

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Message from the Editorial Board

Nutrients is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

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