NUTRITIONAL PROGRAMMING & NEUROPROTECTION

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In the last decades several studies tested the hypothesis that at early development stages certain foods or nutrients, in specific amounts, fed during limited sensitive periods, may determine an endocrine metabolic asset leading to clinical alterations that take place decades later (early nutritional programming of long term health). Evidence is mounting for programming effects of infant feeding. Observational studies indicate that breast feeding, relative to formula feeding, improves the neurodevepmental outcome in adult age even after adjustment for biological and sociodemographic confounders. However, the outcome in terms of delayed decay of brain function is still unknown. Human milk is a rich source of docosahexaenoic acid (DHA) , preferentially stored in the forebrain, and possibly affecting memory and association-related processes. The dietary supply of DHA acid might affect brain development as well as some features of the metabolic syndrome.