



ABSTRACT

Soy isolate protein formula: challenge and benefit to support child's growth and development

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The quality of protein and amino acids of soya is being used as soy protein-based formulas in infant feeding to provide nutrition for normal growth and development. There are few indications for their use in place of cow milk-based formula, although it has no advantage over cow milk protein based formula beyond those indications. Even, there is results from in vitro cross-reactivity that consideration should be appointed when CMA (cow's milk allergy) patients are treated with soy-derivatives, because CMA does not increase the risk of IgE-mediated sensitization to soy protein in children.

Since 1998 the Committee of Nutrition from American Academy of Pediatrics (AAP) recommended soy protein-based formulas for use in infant feeding, especially in infants with galactosemia and hereditary lactose deficiency, and also for parents who are seeking a vegetarian-based diet for their term infant. This recommendation is supported to the evidence that feeding soy formula to infants is shown to be efficacious for their normal growth and development. Soy milk and cow's milk provides similar amounts of protein, however there are several nutritional differences found between them, regarding of calories, fat, and cholesterol content which are less in the soymilk, while vitamin A, vitamin B12, folate, calcium and zinc content are in cow's milk. Beyond that, the fiber content in soymilk is beneficial as prebiotic dietary fiber, i.e. FOS, inulin and GOS, that support digestive health in many ways.

Still, there is debate about the safety issues of soy infant formula which ranging from sexual development disorder, hypothyroidism and low immune system regarding to the levels of aluminum, phytate and isoflavone. However, the US-FDA has approved that the formulas are safe to be given to infants.

Keywords: CMA, infant, prebiotic, soy protein

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