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Diet Influence on the Gut Microbiota and Dysbiosis related to Nutritional Disorders.**Maryam Tidjani Alou^a, Jean-Christophe Lagier^{a,b} and Didier Raoult^{a,c*}.**

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Abstract

Studies concerning the gut microbiota have exponentially increased since the 1970s. A healthy gut microbiota is essential for growth and weight gain in infants as well as for a thorough harvest of energy from diet through a role in digestion. Study techniques include culture-independent and culture-dependent methods aiming at describing the gut microbiota taxonomically and functionally. Healthy gut microbiota plays a role in digestion by metabolizing indigestible macronutrients resulting in short chain fatty acids and other bioactive compounds. Diet was proven to influence the composition of the gut microbiota with specific changes to the major macronutrient contained in the diet. Since diet has an influence on gut microbiota's composition, nutritional disorders such as obesity, severe acute malnutrition and anorexia nervosa are linked to an alteration of the gut microbiota mirroring the physiopathology of the nutritional disorder. These alterations should be the target of future therapeutic interventions in nutritional disorders.

Keywords: Gut microbiota; diet; dysbiosis; nutritional disorders.

Abbreviations

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