The role of gut microbiota in childhood obesity

Farah Hillou
Zayed University, UAE

Childhood obesity has reached epidemic proportions worldwide. The causes of obesity are multifactorial and are influenced by interplay of genetic, behavioral and environmental factors. Recent evidence suggests that gut microbiota is involved in energy homeostasis and inflammation, which may play a crucial role in the pathophysiology of obesity. The human gut harbors a diverse collection of microbes involved in metabolic, physiological, nutritional and immunological processes throughout the body. The dynamic composition of the human gut microbiota is determined by multiple factors such as mode of delivery, diet, environment, infections and exposure to antibiotics. Dysbiosis, an imbalance in gut microbiota, has been linked to various diseases in infancy and later life including asthma, obesity, diabetes, gastrointestinal disease and autism spectrum disorders. Currently, various techniques such as dietary manipulation with pre-and probiotics are under investigation and appear to hold promise in the prevention and management of obesity via alterations in gut microbiota composition.

Biography

Farah Hillou is a Registered Dietitian from the College of Dietitians of Ontario, Canada, as well as with the Commission of Dietetic Registration, USA. She has earned her Undergraduate Degree in nutrition from the University of Nottingham, UK and her Postgraduate Degree in Dietetics and Community Nutrition from McGill University, Canada. She has been involved in academia instructing nutrition and dietetics students in a variety of clinical and public health nutrition courses, in addition to supervising internship students and participating in several research projects related to obesity and children’s health. She has also worked in-corporate health and wellness, where she continues to provide nutrition consultancy to several entities including companies and media. She serves as a member in the Nutrition Task Force, Abu Dhabi Department of Health. Her strong interest is in integrating genetic, environmental and lifestyle factors in addressing physiological imbalances and root causes of chronic disease has led her to seek Certification as an Integrative and Functional Nutrition Practitioner (USA). Her focus lies particularly on gut health, and health conditions linked with the gut microbiome including obesity, autoimmune conditions and chronic disease.

farah.hillou@zu.ac.ae