Previous PDF Next PDF

Science of the Total Environment 886 (2023) 163991

Contents lists available at ScienceDirect

Science of the Total Environment

journal homepage: www.elsevier.com/locate/scitotenv

Dietary exposure to endocrine disruptors in gut microbiota: A systematic review

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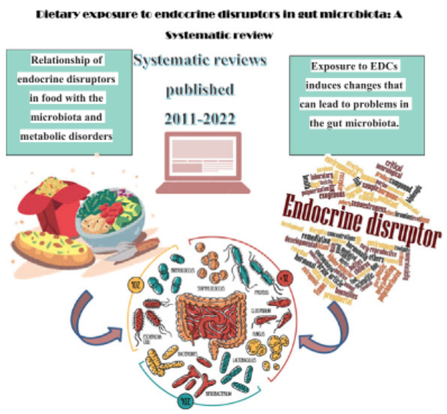
HIGHLIGHTS

- Endocrine disruptors (EDC) have been associated with a higher incidence of metabolic disorders.
- EDCs affect physiological, biochemical and endocrinal activities, including reproduction, metabolism and immunity
- Association of EDCs in food with the gut microbiota and metabolic disorders.
- This review could support the development of health policies to modify the use of endocrine disruptors

GRAPHICAL ABSTRACT



ARTICLE INFO

Editor: Lidia Minguez Alarcon

Keywords:
Endocrine disruptors
Gut microbiota
Metabolic diseases
Dysbiosis
Microbial metabolites
Obesogens

ABSTRACT

Endocrine disrupting chemicals (EDCs) can interfere with hormonal actions and have been associated with a higher incidence of metabolic disorders. They affect numerous physiological, biochemical, and endocrinal activities, including reproduction, metabolism, immunity, and behavior. The purpose of this review was to elucidate the association of EDCs in food with the gut microbiota and with metabolic disorders. EDC exposure induces changes that can lead to microbial dysbiosis. Products and by-products released by the microbial metabolism of EDCs can be taken up by the host. Changes in the composition of the microbiota and production of microbial metabolites may have a major impact on the host metabolism.

Contents