Adipogenesis Regulation and Endocrine Disruptors: Emerging Insights in Obesity

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Endocrine disruptors (EDs) are defined as environmental pollutants capable of interfering with the functioning of the hormonal system. They are environmentally distributed as synthetic fertilizers, electronic waste, and several food additives that are part of the food chain. They can be considered as obesogenic compounds since they have the capacity to influence cellular events related to adipose tissue, altering lipid metabolism and adipogenesis processes. This review will present the latest scientific evidence of different EDs such as persistent organic pollutants (POPs), heavy metals, "nonpersistent" phenolic compounds, triclosan, polybrominated diphenyl ethers (PBDEs), and smoke-derived compounds (benzo -alpha-pyrene) and their influence on the differentiation processes towards adipocytes in both in vitro and in vivo models.