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Presence of Endocrine Disruptors in Portuguese Diet

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Food contamination is a global problem that can have a massive impact in human's health [1]. In Portugal, the consume of food is majority based on the Mediterranean diet including dairy products, meat, fish and eggs, vegetables, cereals, fruits and water [2]. However, sociodemographic and economic changes justify the recent changes in the Portuguese food habits and patterns [3]. Many of these newly introduced alimentary products are stored inside of plastic packages that can have in their composition bisphenols (BPS) and phthalates (PTH), well known due to their proprieties as endocrine disruptors (ED) [4]. The concern is due to the fact that these substances can migrate from the package to the food resulting in human exposure to these contaminants [5]. Considering that exposure to ED occurs essentially through diet, it is important to refer that the group with higher risk are children whose ages range from 2 to 6 years old since they have a relative highly consumption of food and water in comparison to adults and because their reproductive, nervous and immunity system are still in development [6].

The aim of this study was to determine, through a review, the presence already reported of BPS and PTH in food available in Portuguese markets. A detailed literature search of PubMed was carried out using various combinations of corresponding descriptors and free text terms such as ED, food, Portugal and others. To restrict the results, the search was limited to studies published in Portuguese and English languages from January 2000 up to and including May 2019.

After the papers search it was concluded that in Portugal does not exist reported studies about BPS and PTH presence in food products commercialized in Portuguese markets neither biomonitoring studies in Portuguese people. Therefore, it should be done studies in Portugal to understand the levels of contamination in food and people exposure due to the adverse effects that ED have in human health [7].