

Phytoestrogens in Animal Origin Foods

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Abstract

Phytoestrogens are a group of polyphenolic plant metabolites that can induce biological responses. Their bioactivity is based on their similarity to 17β -estradiol and their ability to bind to the β -estrogen receptor. Reliable information on the phytoestrogen content in foods is required to assess dietary exposure and disease risk in epidemiological studies. However, existing analyses have focused on only one class of these compounds in plant-based foods, and there is only little information on foods of animal origin, leading to an underestimation of intake. Although epidemiological data are inconclusive, phytoestrogens are considered to be beneficial for a variety of conditions. To investigate the biological effects of these compounds and to assess the exposure of larger cohorts or the general public, reliable data on the phytoestrogen content of food is necessary. The analysis of phytoestrogens in food is done by using automated solid-phase extraction and liquid chromatography-tandem mass spectrometry.

Keywords: Phytoestrogens, different classes, foods of animal origin, mechanism of action, analysis