Environmental xenoestrogens contribute to inflammation and cardiometabolic risk during obesity in pre-menopausal women

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Introduction: Xenoestrogens (XEs) exposure have recently emerged as a risk factors for obesity and cardiovascular disease. In this regard, we investigate the levels of XEs in plasma and AT depots in a sample of pre- and postmenopausal obese women and their cardiometabolic impact in an obese state.

Methods: We evaluated XE levels in plasma and visceral (v) and subcutaneous (sc) adipose tissue (AT) samples of Portuguese obese women undergoing bariatric surgery. Association with metabolic parameters and 10-year cardiovascular disease (CVD) risk was assessed, according to menopausal status (73 pre- and 48 postmenopausal). Levels of XEs were determined by gas chromatography. Anthropometric and biochemical data were collected prior to surgery.

Results: There was a different distribution of XEs among the three analyzed locations according to menopausal status. Furthermore, in pre-menopausal women, there was a positive correlation between XEs levels and metabolic and inflammatory parameters, namely HbA1c and the count of plasma monocytes with vAT XEs levels, and more importantly XE levels in plasma seem to predict CVD risk.

Conclusions: Our findings suggest that XEs exposure/accumulation/ burden and not obesity per se may contribute to increase CVD risk and inflammation especially in premenopausal women, and thus these chemicals may have a potential role in the later development of cardiometabolic disease in obese women.

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Engendering positive partnerships with industry to address obesity: A framework for collaboration.

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As obesity continues to dominate public health discussions we are mired in an era of conflict and blame that does nothing to serve public health. If we are to solve the obesity epidemic worldwide, adversarial relationships with industry, particularly the food and beverage industry, must be set aside and we must identify ways to successfully engender collaboration. By doing so we will leverage resources from all possible constituencies who are interested in contributing to being part of the solution. If we are to address the obesity epidemic effectively we must engage in thoughtful scientific appraisal and develop sound evidence-based approaches to positively impact energy balance (i.e. improving the nutrition and physical activity environments) and for identifying safe and effective interventions to achieve this both at the population and individual level. Unfortunately, efforts to build effective industry-academic-public health partnerships in nutrition and obesity research are often met with emotional hyperbole and efforts to find common ground are met with interference and opposition. Increasingly both in the public and professional domains we have seen otherwise well-conducted research, involving fully transparent and appropriate funding, rejected out-of-hand based solely on the source of that funding, with no evidence whatsoever of misconduct. This must stop if we are to move forward. In this presentation, we will address how decades of experience and success in other sectors can inform our engagement with the food and beverage industry to allow meaningful scientific discovery to occur and effective public health strategies to be implemented and tested within a collaborative and transparent framework. Guidelines to promote ethical industry/academic partnerships that can expand our scientific knowledge and improve public health will be discussed and relevant research and policy papers discussed.

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Weight Stigma “gets under the skin” – evidence for an adapted psychological mediation framework – a systematic review

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Objective: Research consistently shows a negative view of individuals with obesity in the general public and in various other settings. Stigma and discrimination can be considered a chronic stressor as these factors have a profound impact on the psychological well-being of the affected individuals. This article proposes a framework that entails a mediation of the adverse effects of discrimination and stigmatization on mental well-being through elevated psychological risk factors that are not unique to weight but that could affect overweight and normal weight individuals alike.

Methods: A systematic research was conducted to assess the prevalence of psychological risk factors, such as self-esteem and coping, in individuals with obesity.

Results: 46 articles were assessed and included for detailed analysis. The number of studies on these topics is limited to certain dimensions of psychological processes. The best evaluated association of obesity and psy-