The connection between food toxicology and lifestyle disorders – A literature Review

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Abstract

Around 39% of the adult world population is overweight and 13 % are obese (WHO). One of the major reasons for this (As per Harvard Researchers) is certain food toxins responsible for increasing "craveability" of junk food. Another study suggests the presence of certain chemical obesogens which disrupt the leptin and ghrelin (appetite hormones) also affect the size of adipocytes.

Prevalence of polycystic ovarian syndrome is claimed to be varying between 6-10% in various studies including the major ones from National institute of Health (NIN), Rotterdam and Androgen excess society.

Thyroid on the other hand is affecting 10% of the population (as per a study conducted in 8 major cities of India)

The sedentary lifestyle, convenience foods & improper cooking practices though are to be blamed for the increasing prevalence of all lifestyle disorders but at the same time the increasing exposure to environmental toxins including microbiological, natural food toxins, polymer leaching and its residues including phthalates and bisphenols and the biological magnification of the pesticides across the food chain are all the more responsible for the hormonal imbalances caused by the chemicals mimicking the hormones in the natural biochemical processes hence causing the lifestyle disorders.

The purpose of this presentation is to compile and highlight the most common toxins affecting the nutritional status of the masses, their common sources and mode of action.

The presentation also puts light on the solution based approach (including the importance of an Anti-inflammatory diet) and steps which can be taken to rectify the fundamentals which are going wrong.

Recent publications

1. Kathleen schuler (2009), Chemicals and obesity , Institute of agriculture and trade policy
2. Shamim Shaikh Mohiuddin (2018) , Association of Health Hazardous Low Grade Chronic Inflammatory Process with Freshly Diagnosed type 1 Diabetes Mellitus in Adolescent Age Group.
3. Amber L. Simmons, PhD, Jennifer J. Schlezinger, PhD, and Barbara E. Corkey, PhD (2014) , What Are We Putting in Our Food That Is Making Us Fat? Food Additives, Contaminants, and Other Putative Contributors to Obesity
4. Mohan Manikkam, Rebecca Tracey, Carlos Guerrero-Bosagna, Michael K. Skinner (2013) Plastics Derived Endocrine Disruptors (BPA, DEHP and DBP) Induce Epigenetic Transgenerational Inheritance of Obesity, Reproductive Disease and Sperm Epimutations
5. Sara J Vagi1 , Eduardo Azziz-Baumgartner1 , Andreas Sjödin1 , Antonia M Calafat1 , Daniel Dumesic2 , Leonardo Gonzalez3 , Kayoko Kato1 , Manori J Silva1 , Xiaoyun Ye1 and Ricardo Azziz2,3,4, (2014), Exploring the potential association between brominated diphenyl ethers, polychlorinated biphenyls, organochlorine pesticides, perfluorinated compounds, phthalates, and bisphenol a in polycystic ovary syndrome: a case–control study



Manisha Mehta has her expertise in weight, fat, muscle management and Sports Nutrition. Her keen interest in food and the way it affects life has driven her extensive studies in the subjects of Food technology, Packaging Technology and Nutrition along with Food Service management systems. The foundation of this presentation is based on the years of experience she has gained while studying as well as successful counselling of hundreds of clients with issues varying from weight management to lifestyle disorders and food intolerances in different settings including hospitals and health centers.

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