

WARNING: A MAJOR GLAND IS IN PERIL

Endocrine disrupting chemical (EDC) is every substance that interferes with hormonal action. The thyroid is more prone to disruption than any other endocrine gland. Different environmental chemicals are negatively influencing the function of thyroid axis at every level. Plastic and its compounds, phthalates, bisphenol A (BPA) and bisphenyl S (BPS) are widely used for food storage. Exposure is the earliest possible through necessary medical devices in hospitalized neonates. Present in catheters in Intensive Care Units, in baby bottles, canned drinks, even in store receipts and recycled paper, they are ubiquitous in environment and almost inevitable. BPS, the substitute for toxic BPA is far from being safe. One of the most significant findings is that low doses can be more harmful than larger ones.

Thyroid hormones have pleiotropic effects, playing critical roles in early brain development, thus influencing intelligence, stimulate growth hormone synthesis, secretion and signalisation, allowing normal somatic growth, bone and pubertal maturation, fertility and the mRNA synthesis of more than hundred proteins with regulatory effect of each and every bodily function. So the question arises; are we less intelligent and less fertile because of abundant use of such chemicals in quotidienne life. Nevertheless, many clinical and experimental studies documented the deleterious effect of chemicals on thyroid gland provoking thyroid dysfunction and rising the incidence of autoimmune thyroid disorders.

As great admirer of scientific and professional work of Professor Leonidas H Duntas, one of the most prominent contemporary world endocrinologists and thyroidologists, I have the special privilege and honour to present you the Invited review authored by Prof Duntas on this very item with challenging title and inspiring content. Besides his professorship in Athens and Ulm, Prof Duntas is a visiting professor at the Medical Faculty in Belgrade and Novi Sad and Secretary-elect of the European Thyroid Association.

This review aims to sound as alarm and thus call to action all academic organizations to counteract a threat which is disrupting not only the thyroid, but also the life on the earth.

„Feeble though we may seem, we have the power to influence the course of our planet...“

Colin Hiram Tudge

...taken from Duntas L.H. Chemical contamination and the thyroid. Endocrine 2015; 48: 53-64.



Editor-in-Chief

A handwritten signature in blue ink that reads "Lj. Šaranac".

Ljiljana Šaranac