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Chemical routes of water and soil with potentially hazardous contamination to humans: The wrong path to epigenetics

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Water and soil contamination by industrial wastes, medicaments, agrotoxics, heavy metals made soluble and food additives are ubiquitous in the planet, threatening our future life prospects. Can we properly deal with these environmental chemicals constantly being produced, many being persistent pollutants and/or endocrine disruptors? How much can be tolerated by us of excitotoxins, food additives, petroleum based substances, and many other artificial ingredients? The DNA expression is definitely being tampered by so many nutrition alterations. Essential metal deficiencies will lead to substitution by toxic ones in the enzyme sites. Pb replaces Ca, Cd replaces Zn and Al and Ni replace Mg and Mn. Dioxins are now found in humans by bioaccumulation in the food chain. These non natural compounds have in TCDD (2, 3, 7, 8-Tetrachlorodibenzodioxin) an example of an odorless and colorless lethal substance. Many food contamination with other xenobiotics are also being reported all over the world. Hardly known effects in humans' new processes of conserving food, like gamma- and X-rays irradiations are being used with no further explanations whatsoever. To understand a little how the environmental chemicals and food additives act on human health, chemical routes have to be explored for later, try to understand how good or bad will be their effect in our epigenetics.

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The importance of comprehensive nutrition knowledge and new dietary components to target high blood pressure as a major public health issue

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High blood pressure is strongly associated with major chronic diseases including cardiovascular disease and kidney dysfunction. It is one of the most common conditions in the world affecting more than one third of all adults worldwide. Poor dietary habit is strongly and positively associated with high blood pressure. Inadequate level of nutrition knowledge and inability to make healthy food choices can be associated with poor dietary habits and higher blood pressure. Individuals usually require having an adequate level of nutrition knowledge to be able to follow dietary approaches to improve blood pressure. Therefore it has been suggested that nutritionist and dieticians should educate individuals with high blood pressure about their diet and healthy food choices. However, our latest study suggests that individuals with high blood pressure have insufficient knowledge regarding food choices in relation to the blood pressure control and management. The results also show that salt intake among these people is still high (almost twice the recommended intake of salt to prevent cardiovascular disease). In addition, new compelling evidence suggests adding functional food and dietary components (such as probiotics, green tea, and flaxseed) to daily diet have moderating effect on blood pressure control. However, poor education and lack of public knowledge has limited the consumption of these dietary components. An effort can be made to increase public knowledge of food and dietary components which can improve blood pressure and overall health. These efforts may lead to improvement in food choices and reduction in the burden of diet-related disease.

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