

Toxicity Effect of Environmental Chemicals and Pollution on Women's Health: A Review Article Study

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Introduction: Today, women are exposed to many Environmental chemicals or pollutants compounds over lifetime. Knowing mechanism and effect of these compounds help us to identify the higher risk of various health problems. There are a few known mechanisms for carcinogenicity of aromatic rings, aromatic amines, N-nitrosamine and halogenated compounds in quantum chemistry.

Materials and Methods: A search was carried out using Scopus, MEDLINE and Web of Science databases and local references without date restriction. In this research, quantumbiology, cancer biology and medical publications have been used. According to Polman's theory, a carcinogenic compound has an active site with a high density of electrons and π -bond order. The existence of such high electron density regions increases the reactivity of molecules. In another theory, the reactivity is due to its resulting metabolite. Such products attach to the DNA. Modern food- production methods have opened exposure to environment carcinogens in women. For example, addition of nitrate and nitrite to food products, as preservatives can increase the cancer risk in two ways.

One of the initial studies published in 1999 reported a link between OCPs and breast cancer risk using a human breast cancer screening model to study toxaphene, also known as Camphechlor which was a replacement for DDT and two of its congeners. Toxaphene was used heavily as an agricultural insecticide in the US and its concentrations is abnormally high in regions of the northern hemisphere such as the Canadian Arctic and the Great Lakes.

Results: Preservative chemicals found in analysis of some breast tumors indicate high concentrations of para-hydroxybenzoicacids (parabens) are used by women in many cosmetic and some food. Parabenes can mimic the hormone estrogen effect, which is known to play a role in the development of breast cancer.

New studies that targeted toxicologically relevant chemicals and captured biological hypotheses about genetic variants or windows of breast susceptibility added to evidence of links between environmental chemicals and breast cancer. However, many biologically relevant chemicals, including current-use consumer product chemicals, have not been adequately studied in humans. Studies are challenged to reconstruct exposures that occurred decades before diagnosis or access biological samples stored that long. Other problems include measuring rapidly metabolized chemicals and evaluating exposure to mixtures

Conclusion: Exposure is an important risk factor for health and can lead to increased risk of a variety of diseases. It is believed that about seventy percent of cancers have environmental origins. Here, the term environment refers to life style, diet, exposure to infection, average age of menstruation period and the age of menopause, number of children or overlay chemical and cultural environment that is much more important in the case of women's health.

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