

## Pesticide Exposure and Pregnancy Outcome: A Literature Review

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Chronic adverse effects on human bodies from pesticide exposure are far-reaching. They eventually cause neuropsychological disorders, organ disorders, oncogenesis, unwanted pregnancy outcomes, developmental disorders, and so forth. This paper reviewed the literature published in recent years on the relationships between pesticide exposures and pregnancy outcomes.

Many studies from North America and Europe documented a link between adverse pregnancy outcomes and exposures to pesticides used in agriculture, gardening, and in everyday life. The adverse pregnancy outcomes were birth defect, spontaneous abortion, stillbirth, preterm birth, depressed birth size, and the imbalanced male/female ratio of newborns. The majority of the reports described significant relations. Significant increases in the incidence of birth defect were reported also by the majority of the reports, and specific malformations such as anencephaly were significantly related to pesticide exposure. Hypospadias and cryptorchism were found to be significantly closely related to exposure to various kinds of pesticide and the residue of chlordanes rather than residual DDT.

Two pieces of research carried out in the Philippines and South Africa revealed a close association between agricultural pesticide use and birth defect and spontaneous abortion. In the developing countries of the tropical and sub-tropical regions, the protect gears were scarcely used for the reason of climate and a high cost. Consequently, the risk of exposure was high. The situation in these regions needs further study from an epidemiological standpoint. Some activities and administrative measures are simultaneously necessary, including the education in order to decrease the risk of pesticide exposure and use pesticides with low toxicity.

Regrettably, few epidemiological studies have been carried out in Japan, and the Japanese Association of Rural Medicine is responsible for promoting epidemiological research in this nation. Furthermore, it should contribute to the activities and administrative measures to lower the risk of pesticide exposure in Southeast Asian countries.

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