

Effect of Environmental Risk Factors on Human Fertility

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Abstract

Infertility is believed to be part of the various medical problems that has increased up to 50% since 1955 in the world and 10-15% of couples are already suffering from it. Development of industrialization and urbanization in human societies have dramatically changed the human life style and led gradually to the increase of various environmental risk factors. Humans are exposed to polluted air, containing harmful elements such as lead, drinking water which is frequently contaminated by different noxious materials like arsenic, chromium, benzene, agricultural water and soil containing pesticides and chemical fertilizers – which subsequently will produce contaminated crops – use of hormones and drugs in animal husbandries and presence of their residues such as steroidal hormones in meat and dairy products, the ever-growing use of synthetics and preservatives in food industry. Furthermore, poor dietary habits and malnutrition, consumption of diets deficient in antioxidants, zinc, selenium and copper, adverse effects of some pharmaceutical products and chemical agents such as ketoconazole and dioxin, daily exposure to harmful radiations such cosmic, ultraviolet and X rays, electromagnetic waves emitted from telecommunication transmitters and cell-phones, physical and psychological stresses in living and working environments, smoking, stationary life-style, obesity, and the increasing age of marriage all are the factors which can directly and indirectly affect human fertility. Although measuring environmental hazards and studying their effect on fertility reduction is difficult due to their multifactorial and diverse nature, the problem still remains indeterminate and more studies are required to draw a strong conclusion. The purpose of this review was to study the effects of environmental risk factors, especially emerging risk factors, on decreasing human fertility.

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