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## Effect of mercury and lead (heavy metal pollution) on the maternal animal and embryonic development of viviparous scorpion during the gestation period

Heavy metals are essential to normal development of organ systems as well as body metabolism. These are useful to the growth of tissues, synthesis and activity. Many heavy metals like copper, zinc, manganese, chromium, etc., are important components of biochemical functions. However heavy metals at higher concentrations prove to be hazardous affecting life and life processes. Man has always been exposed to heavy metals through natural concentration in soil and water. Metals leached from eating from utensils and vessels used for cooking increased the risk. The emergence of the industrial age and large scale mining brought occupational hazards caused by various toxic metals. Metallic constituents of pesticides and therapeutic agents are additional sources of hazardous exposure. The burning of fossil fuels containing heavy metals and the addition of tetra ethyl lead to gasoline have now become the major sources of heavy metal poisoning, adding to environmental pollution, with the increased usage of chemicals in modern technology, the concentration of the metals is increasing in the environment. Heavy metals are known to affect reproduction and development of animals. Trans placental movement of methyl mercury in women caused feto- toxicity. Exposure to heavy metals caused more damage to fetus than to mother. Lead crosses the placenta and causes abortion and fetal loss. Increased maternal exposure to lead resulted in the increased lead content in fetus and new born in pregnant women. Heavy metals, finding entry in to an organism induce biochemical and metabolic changes. Man today is living in a world created by him that is becoming more and more hostile every day owing to pollution. Is it possible for us to live without pesticides, without heavy metals, and without radioactive substances and vehicles? It is just not possible.

#### **Biography**

M V Raghavendra Rao, PhD, worked as Professor of microbiology, parasitology, immunology and epidemiology in many universities in India, China, Nepal, Libya, and Philippines. Currently, he is working at Avalon University School of Medicine, Curacao, Netherland Antilles. He has more than 40 years of teaching and research experience. He supervised 3 students for PhD, and 8 students for MPhil. He authored 18 text books. Three universities appointed him as their advisor and 3 universities acknowledged him with fellowships.

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