

SERUM CHOLINESTERASE ACTIVITY OF HEALTHY SRI LANKANS AND THOSE EXPOSED TO ORGANOPHOSPHORUS COMPOUNDS**M. Ponnambalam***(Division of Occupational Hygiene, Jawatte Road,
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Workers involved in agriculture, animal husbandry, public health, formulation and research, handling organophosphorus compounds may run the risk of absorption of these toxic chemicals. Over absorption, unsafe working methods and working environment are detectable by the depression of the cholinesterase enzyme activity of the blood.

Cholinesterase levels of 58 healthy adults of age group 19-24 were determined by the Garry and Routh method using a spectrophotometer. The measurements were made at 412 m μ . The study reveals that the cholinesterase activity level range between 1.68 - 5.35 I. u/ml for males and 1.5-6.64 I. u/ml for females. The cholinesterase activity of 70% of the population ranged between 2.0 - 4.0 International units/ml

The above study was followed by a similar study involving 20 subjects working in a pesticide formulating factory. 25% of these exposed subjects showed marked cholinesterase depression compared to the cholinesterase activity of 70% of the normal population. 10% of them showed levels lower than the lower range for normal levels and in fact they have absorbed organophosphorus compounds through inhalation and skin absorption.

References

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