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Serum Calcium and Phosphorus Levels in Nuclear Fuel Workers

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KEY WORDS Uranium. Nuclear Fuel. Occupational Exposure. Calcium. Phosphorus.

ABSTRACT Biochemical studies were carried out in the workers from various plants of a nuclear fuel manufacturing facility. Their age ranged from 23 to 52 years and their service in the nuclear fuel facility ranged from 1 to 25 years. Serum calcium levels were estimated in 97 workers and serum phosphorus levels were analysed in 86 workers using standard kits. For comparison, 35 individuals who had no exposure to uranyl compounds or any other known chemical or physical mutagen were also studied. Both worker and control groups were non-smokers and non-alcoholics. A significant rise in serum calcium and phosphorus levels was observed in the workers when compared to respective controls, indicating renal damage.

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