

**Thesis Title : Epidemiological Study on Potential Health Hazard
of Borax among Bangkokians**

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Abstract

Borax is one of the chemicals used in industry. Despite strictly prohibited putting in food two years ago, it has been found adulteration in various kinds of food-stuffs. The reasons why borax being mixed is already known. Some food producers use this chemical as a preservative or for other commercial benefits. The situation is threatening the consumers' health especially those who live in Bangkok.

The study was done during the period of June 1 to October 31, 1986 to elucidate existing health hazard due to borax among general population. The method and procedure introduced for the survey was simple. Potential health hazard was estimated by the rate of positive borax in the urine.

The population planned for this study was the Bangkokians. They were divided into two groups : 589 vegetarians and 1,767 non - vegetarians.

The urine was collected from each subject. Dropping one microdrop on freshly prepared turmeric paper. The result was instantly read. Red colour indicated positive. Semiquantitative values of borax in the urine could be determined by comparing the intensity of the colour changed.

Finally, the positive results were 27.33% and 28.52% in the vegetarians and the non-vegetarians respectively. The figures showed no statistically significant difference ($P=0.5759$) in both groups of different habit of consumption.

The types of food frequently eaten played the most important part in urine borax. Various types of food previously found were necessary for daily consumption contaminated with borax ie. beef ball, pork ball, chicken ball, fish ball, sausages, Vietnamese minced pork, fried minced fish with curry powder, pickled vegetables, salty-preserved vegetables, fried bean curd, fried bananas, fried potatoes, pickled mango, salty-preserved mangoes, fried flour, fried bun, jelly, crispy sweets made from flour, Yellow-Chinese noodle and Wan-Tan flour were corresponded to those who possessed positive urine borax giving such informations through questionnaires.

Recommendations for further research both determination of borax in all food-stuffs and definite health hazards should be done urgently in order to prevent the Thai population from seriously ill health effects.