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KEY WORD : LEAD CONTENT / STREET FOODS

APHIRADEE SRIJUNTRAPUN : COMPARATIVE STUDIES ON LEAD  
CONTENT IN STREET FOODS IN BANGKOK IN 1993 AND 1999. THESIS ADVISER :  
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The purpose of this study was to compare the lead content in street foods in Bangkok in 1993 and 1999. An additional purpose was that efforts must be made to educate food vendors and consumers in order to improve the environmental conditions in which the street food without cover will have a higher lead content from motor vehicle exhaust.

From the study of lead content in food sample collected from 3 zones ( inner zone is Patomwan and Payatai, middle zone is Donmeang and Jatujuk, outer zone is Nongjok and Nongkem) in 1999 and analysed by Atomic Absorption Spectrophotometer, the results showed that intake of lead obtained by consuming one meal of street food was  $2.84 \mu\text{g/hr}$ . Compared with the results in 1993 reported by Prakai Boriboon that intake of lead obtained by consuming one meal of street food was  $4.027 \mu\text{g/hr}$ , the present results had reduced to  $1.187 \mu\text{g/hr}$  (29.48 %) of the prior results. This was due to a decrease in lead content in the air since 1991, resulting from a government program to reduce lead content in gasoline, and the introduction of unleaded gasoline. Moreover, leaded gasoline wasn't purchased since 1996. Therefore the lead content in street foods should be decreased due to a reduction of lead in the air.

The difference of intake of lead obtained by consuming one meal of street foods was studied in the difference zones (inner zone , middle zone and outer zone). According to the studies, the inner zone, the middle zone and the outer zones' results were  $4.33 \mu\text{g/hr}$ ,  $2.67 \mu\text{g/hr}$  and  $0.4182 \mu\text{g/hr}$  respectively. The middle zone and the outer zones' intakes of lead obtained by consuming one meal of street foods were lower than the inner zone of about 38.34 % and 90.34 % respectively, because of a difference in traffic congestion and motor vehicle exhaust related to lead contamination to the air and the street foods. Thus, lead accumulation in the street foods was proportionally increased with heavy traffic congestion.