



The Influence of Vehicular Traffic Upon Physical Activity in Children

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ABSTRACT It is believed that vehicular traffic is a substantial impediment to a child's ability to be physically active. This study examined whether children who live in an environment free from vehicular traffic would be more physically active than those living with traffic. Two groups of children were selected from morning only primary schools in two distinct districts of Hong Kong: one with high vehicular traffic volume (TD), the other with none (NTD). Physical activity was assessed using heart-rate telemetry for three normal school days. No significant differences were found between the two districts in sustained bouts of physical activity. Significant ($p < 0.05$) gender differences were apparent in both the traffic and non traffic districts, with the girls consistently less active than the boys. The girls in the TD were the least active, spending 20 minutes less time ($p < 0.05$) within the moderate intensity threshold compared to the boys in that district, as well as 11 minutes less time in the same threshold compared to the girls in the NTD. This study concludes that the role traffic plays in the activity behaviour of Hong Kong primary school children is weak, however the girls in the TD appear to have a more restricted pattern of activity, which may suggest an interaction with high volumes of vehicular traffic.

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