

## **Pedestrian activity and accident risk**

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Cost: 179,000

Published: April 1994

The objectives of this study were:

- to establish a methodology for measurement of pedestrian exposure to risk, and to define appropriate units for that measurement, in different environments including pedestrian areas;
- to undertake surveys of pedestrian activity in selected urban areas (speed limits up to 40mph) to quantify these measures of exposure for different groups of pedestrians under different circumstances;
- to establish relevant pedestrian casualty rates in reported traffic accidents and identify levels of risk for different situations.

The report provided the most detailed breakdown yet of pedestrian risk and was the result of almost two years' study of walking patterns and accident records in Northampton - chosen for the study as a 'typical UK town'. It rated exposure to risk in terms of casualties per 100 million kilometres walked or roads crossed, and highlighted vulnerable groups by age and sex, their residential area and by what type of roads they used.

Major groups found at risk:

- the risk of injury for pedestrians in road accidents was found to be 411 casualties per 100 million kilometres walked alongside traffic compared with the rates of 34 casualties per 100 million kilometres travelled for car drivers, 551 for motor cyclists and 526 for cyclists;
- children aged 5-9 topped the accident risk league, with those aged 10-15 having only a slightly lower risk. Adults over 65 years of age were the third most at-risk group. Boys aged 5-9 were found to be much more at risk than those aged 10-15, with girls within the latter age group having the highest casualty rate of any group;
- although road safety campaigns tended to highlight the dangers faced on local roads, this study found that main roads posed a much greater risk to pedestrians.

Other findings were:

- on average a person walked less than one kilometre per day;
- young adults aged 16-19 walked the furthest (average 1.7 kilometres a day) and crossed the greatest number of roads, but their accident involvement risk was much lower than that for children;
- males were on average 50 per cent more likely to be involved in accidents than females;
- crossing roads at junctions reduced the risk of injury as did the use of pedestrian crossings on main roads;
- pre-1965 council housing residents were more at risk than those who lived on private housing developments of the same period;
- housing developments with footways separated from traffic had lower accident levels;
- the risk of an accident in darkness was about five times greater than of that in daylight.

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