

Title

**The importance of being seen in traffic.**

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### **Abstract/summary**

During the Olympic Games in Sydney last year a Nigerian athlete was killed on the road as he failed to recognize the traffic rules and regulations in a foreign country and was possibly not seen as he stepped off the pavement onto the road in the early evening darkness.

Sight is the driver's most important sense. More than 90% of all messages to the brain are visual when driving. When a car is travelling at a speed of 80km/h, or 22 meters per second, the average reaction time is one second and the physical response takes another second. During this time the car has already traveled 44 meters. A child pedestrian is visible at 30 meters with low beam headlights (ca. 1.3 seconds reaction time at 50 mph). A child pedestrian wearing a reflector is visible at 150 meters with low beam headlights (ca. 6.5 seconds reaction time at 50 mph). Pedestrian reflectors have been used successfully in Scandinavian/Nordic countries for over 30 years. This is the time for Australia to start using this simple pedestrian tool used worldwide.

In recent years there have been many advances in the motor vehicle industry for increased safety for occupants, few of these improvements are relevant to pedestrian safety yet 1 in 5 fatalities on Australian roads is a pedestrian. Awareness is major part of reducing child accidents and by educating primary school children will show results in the statistics in secondary school age. By secondary school age stage the children will have developed a perfect knowledge of how important it is to be seen in traffic. Accident prevention is essential and Reflectors have proven their effectiveness in accident prevention for more than 30 years in many countries.

### **Introduction**

*"Pedestrians are one of the most vulnerable groups on Victoria's roads. Pedestrians account for 20 per cent of deaths and 12 per cent of serious injuries. They are three times more likely to be killed in a road accident than other road users"* ([www.vicroads.vic.gov.au/road\\_safe/dafe\\_first/walksafe.htm](http://www.vicroads.vic.gov.au/road_safe/dafe_first/walksafe.htm)).

In Australia each year there are approximately 350 pedestrians killed in traffic. In addition to those who being killed, there is about 3,500 pedestrians who have been (or are going to be) seriously injured in traffic this year. This is a total cost to the Australian community of 1 billion dollars. The cost is explained as \$900,000 for each death and \$120,000 for each serious injury. The main risk groups being identified as children, elderly, intoxicated and tourists (*Pedestrian Council of Australia 1996*).

In Victoria, every year approximately 70 + pedestrians, or per today 41 pedestrians has died in traffic on our roads. The numbers above is in addition to the fatal accidents we know that a large number of unreported and not so serious accidents that happens every day, particularly in metropolitan areas. The metropolitan areas are where the majority of the fatal accidents happen. This is why we have to educate the actors in those areas about the dangers they are surrounded by.

### **Make yourself visible!**

There is a saying that goes like this; "It is never too late to learn". In this case, we will turn the saying around and say; "it is never too early to learn". Already from primary school age should children learn about how dangerous the traffic is. The traffic is dangerous because of external causes that sometimes

pedestrians can accumulate and prepare for. External causes as dusk, dark, rain, slippery road when wet etc. is to blame for many accidents. But most of all accidents are caused by personal faults. Most drivers say “they simply did not see...” when explaining the accident. It is therefore the pedestrians responsibility to help the driver to see the pedestrian when the weather is not allowing the driver to see as clear as in perfect conditions.

Statistics, in Microsoft Powerpoint will show stopping distance for a car and the impact colors have on the drivers sight.

When a car is travelling at a speed of 80 km/h, it translates as 22 meters per second. The average reaction time is one second and the physical response takes another second. In this time the car has already traveled 44 meters. A with dipped lights. This will leave the driver 1.3 seconds time to react and act. A pedestrian with a reflector can already be seen at a distance of 150 meters, which means the driver in this case has almost 7 seconds time to react and pass the pedestrian safely.

### **Who is at risk?**

- ?? Children (aged 4-14 years) Young children are at a disadvantage in traffic simply because of their size, development and experience.
- ?? Older pedestrians (aged 60 years and older) Most crashes involving older pedestrians occur within 1 km of the pedestrians home, during a routine trip, such as walking to the shops.
- ?? Intoxicated pedestrians. Alcohol impairs a persons judgement and slow their reflexes. Just as alcohol affects your ability to drive safely, pedestrians who are affected by alcohol have difficulty in making safe decisions about crossing roads. Target those who are likely to consume alcohol in different entertainment precincts ([www.vicroad.vic.gov.au/road\\_safe/safe\\_first/walksafe.htm](http://www.vicroad.vic.gov.au/road_safe/safe_first/walksafe.htm)).

### **Brighter winter beckons for school children in UK.**

In UK 1999 a survey performed on the issue of pedestrian accidents involving children. The survey found that most child pedestrian accidents happen close to home, on residential roads. The accidents happened during school term time, accidents peak between eight and nine o'clock in the morning, and between three and six o'clock in the afternoon, as children travel to and from school. In addition, during the summer-holiday months the accident rates increased because there were more children spending time playing outside without supervision ([www.roads.detr.gov.uk/roadsafety/crsc/facts.htm](http://www.roads.detr.gov.uk/roadsafety/crsc/facts.htm)).

In the study performed in UK it was found that the parents of primary school children said road accidents were the most worrying threat to their children. Parents of secondary school children were more worried about drugs ([www.roads.detr.gov.uk/roadsafety/crsc/facts.htm](http://www.roads.detr.gov.uk/roadsafety/crsc/facts.htm)).

As a result of the survey performed in 1999 a pilot project was launched in Swindon, UK in October 2000 where 20,000 primary school children received a pedestrian reflector. Each of their teachers received curriculum programs for classroom use in promoting road safety and visibility issues. The pilot scheme provided a useful tool for teachers to explain and discuss the need to be seen during dusk and dark nights and children had simple measure to put into practice what they had learnt. **As a result of the pilot test the UK Government found that all primary schoolchildren (more than five million children) will each receive a reflector disk to wear on their coats and bags in time for the dark nights in October 2001 (Appendix 1).**

The UK Government is committed to reducing the number of children killed and seriously injured on our roads by 50 per cent by 2010. They have realized that teaching children how to be safe and helping them to be seen on dark evenings should help them meet that target (Appendix 1). The UK Government emitted that UK child pedestrian safety was poor compared to other European countries and is now expecting that this Reflector scheme will help save lives.

## **Recommendations.**

There is a commitment from state government and statutory bodies e.g. Road Traffic Authority to develop educational, health and safety programs to promote pedestrian safety reduce traffic accidents and road deaths. The NSW Government with the Road Traffic Authority (RTA) is looking at innovative developments and the management of pedestrian facilities. One of which is to maximize the capacity and effectiveness of the existing pedestrian infrastructure through a number of pedestrian facility improvements and pedestrian behavior education [RTA 1998].

A suggestion Victorian Government, the Victorian Education Department, Policeforce and VicRoads is to endorse these effective Reflectors in our society and by this improving the pedestrian behavioral education in the state. A Reflector is a simple plastic disc with reflective properties, about 4 cm in diameter, easy to wear on clothing or bags, has been used in Scandinavian countries for over 30 years to reduce road traffic accidents. The safety advantage of using the personal safety reflector is the increased visibility of the person wearing a reflector. Currently, in the Australian pedestrian safety products market, novelty reflectors (for children's bicycles) and expensive battery operated safety reflectors are available to the consumers. Personal safety reflectors priced less than \$8 -\$10 is not available in the market in any part of Australia.

If children are using the Reflectors then the parents feel confident that their children are safer and more visible than without. Drivers will also feel more confident of seeing the children and pedestrians. Companies and government agencies can improve their social image and commitment to road safety by endorsing these products and placing the company logo on the Reflectors.

**Easy usage:** the Reflector is simply attached to the garments with a string and a safety pin. It can be stored in the pocket during daylight and pulled out when the light fades.

**Increase in visibility – makes people visible:** when the user is moving in the dark the self reflecting silhouette dangles and produces a remarkable blinking moving light. This light attracts attention by approaching vehicles forcing the driver to adjust speed to the situation well before reaching the person wearing the reflector.

**Fashion accessory:** – the Reflector can be purchased in various colors and shapes. This makes the Reflector especially appealing to children or teenagers. Furthermore, the light reflections are attractive to eyes even in daylight (the Reflector shines in sunlight in many rainbow colors, like a prism).

**European standard:** – the personal Reflectors are widely used in Europe. It looks like an imported, foreign accessory for particular users. Passed strict European safety test. (*Appendix 2*)

*This paper is a work in progress in Victoria, Australia*

# Press Release



*Date issued: 12 Mar 2001*

## **BRIGHTER WINTER BECKONS FOR SCHOOLKIDS NATIONWIDE**

More than five million UK primary schoolchildren and their parents will look forward to a safer winter this year thanks to a national road safety initiative launched by Nationwide Building Society.

After a successful pilot scheme in Swindon in Winter 2000 the Society, with support from the Department of the Environment, Transport and the Regions, will today announce plans to extend the scheme to all primary schoolchildren in the autumn. The announcement will be made at the 66<sup>th</sup> Road Safety Congress in Glasgow.

All primary schoolchildren will receive a reflective disc to wear on their coats and bags in time for the dark nights after the clocks go back in October 2001. By wearing a reflector a child pedestrian can be visible at 150 metres with low beam headlights compared to only 30 metres without one. Teachers will receive a curriculum linked teaching resource pack for classroom use to promote awareness of road safety and visibility issues.

Road Safety Minister, Lord Whitty said: "The Government is committed to reducing the number of children killed and seriously injured on our roads by 50 per cent by 2010. Teaching children how to be safe and helping them to be seen on dark evenings should help us to meet that target. I commend Nationwide's initiative, which will be welcomed by parents, teachers and children alike."

Brian Davis, Nationwide's chief executive, said: "Government figures\* show that every year over 130 children die and more than 4,500 are seriously injured while walking and cycling, many of them close to their homes. Child pedestrian safety in the UK is poor compared to other European countries. This scheme will help save lives, and should be welcomed by parents with young children and by all drivers."

Margaret Tester, road safety officer at Swindon Borough Council, said: "Feedback from teachers across the Borough focused on how such a simple idea can be so effective. The pilot scheme provided a useful tool for teachers to explain and discuss the need to be seen at night, and children had a simple measure to put into practice what they had learnt. We're very pleased that this year primary schoolchildren everywhere will benefit from our experiences."

Helen Miah, director of performing arts at Churchfields school in Swindon said: "One of the most interesting aspects of the Nationwide campaign was communicating the subject of road safety between child and teacher, child and parent and indeed between the children themselves. Awareness is a major part of reducing child accidents, and this campaign addresses the issue in a very original way."

#### NOTES TO EDITORS

Working in conjunction with Swindon Borough Council and the DETR, the pilot project was launched in Swindon in October 2000 - 20,000 primary schoolchildren received a pedestrian reflector. Each of their teachers received a pack of Key Stage 1/2 worksheets for classroom use in promoting road safety and visibility issues.

A child pedestrian is visible at 30 metres with low beam headlights (ca. 1.3 seconds reaction time at 50mph). A child pedestrian wearing a reflector is visible at 150 metres with low beam headlights (ca. 6.5 seconds reaction time at 50mph). Pedestrian reflectors have been used successfully in Scandinavian/Nordic countries for more than 30 years.

#### International comparisons of overall rate of serious road injuries to children \*

##### **Child pedestrian fatality rate per 100,000 : 1997**

COUNTRY

CHILDREN 0-14

PEDESTRIAN

GREAT BRITAIN

1.21

AUSTRIA

0.79

BELGIUM

0.94

DENMARK

0.85

FINLAND

0.94

FRANCE

0.91

GERMANY

0.64

IRELAND

1.31

ITALY

0.49

NETHERLANDS

0.66

NORWAY

0.81

SPAIN

0.94

SWEDEN

0.54

SWITZERLAND

0.96

\*Figures from the Department of the Environment, Transport and the Regions' road safety strategy 'Tomorrow's roads: safer for everyone', published in March 2000.  
[www.detr.gov.uk](http://www.detr.gov.uk)

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## Appendix 2.

### **Standards.**

- ?? The Reflectors are tested at SINTEF, Norway, according to Norwegian Standard; NS 9370
- ?? The Reflectors are approved by The Directorate of public roads, Norway and recommended by The Norwegian Society for Traffic Safety.
- ?? The Reflectors are tested at Swedish national Testing and Research Institute, according to Swedish Standard; SS 882510/11
- ?? The Reflectors have certification licence No. 182.1004.1-01A from SIS SAQ Certifiering AB, central body for Standardization in Sweden.
- ?? Danish Standard for Pedestrian Reflectors, DS 2386
- ?? Finnish Standard for Pedestrian Reflectors, SFS 4409:E
- ?? The Reflectors are tested at British Standard Institution and complies with the requirements of BS 5665 Part 1:1998, BS 5665 Part 2:1994, BS EN71-3:1995.