

Think Before You Drive

Road Safety Fact File

Worldwide toll of road crashes

- 1.2 million people worldwide are estimated to be killed each year on the roads – more than 3000 people every day;
- 50 million people worldwide are estimated to be injured in road crashes each year;
- The estimated global financial cost of road traffic injuries is US\$ 518 billion each year;
- The estimated cost to low and middle income countries is US\$ 65 billion, more than all incoming development aid.
- For men aged 15-44 road traffic injuries rank second (behind HIV/AIDS) as the leading cause of premature death and ill health worldwide;
- Low and middle income countries account for more than 80% of global deaths from road traffic crashes and fatality rates are rising. By contrast, the general picture in industrialised countries is of three decades of falling road deaths;
- 50,000 people die in road crashes in the 25 member states of the European Union.

Seat belts

- Seat belts save lives. Seat belts are the single most effective, and least costly, road safety measure for car occupants. Using a seat belt can improve your chance of surviving a potentially fatal crash by between 40 - 60 per cent;
- Seat belts are conservatively estimated to have saved more than 300,000 lives and prevented more than 9 million injuries in highly motorised countries over the past 25 years;
- Recent research by the US National Highway Traffic Safety Administration (NHTSA) found that seat belts were responsible for more than half of the 330,000 road deaths prevented by motor vehicle safety technologies in the US in the years 1960 - 2002. Seat belts saved 14,500 lives in the US in 2002 alone;
- Increased seat belt wearing as the result of legislation and enforcement has reduced fatalities by up to 20% in the UK; 20% in Australia; and 25-30% in Germany over the past 25 years;
- Front seat belt use in many highly motorised countries (e.g. in Europe, US, Japan) is now above 80% or 90%, but wide variations remain, with some European countries as low as 50-60%. Rear seat belt use is relatively low – often below 50%. A recent EU study found that in ten European countries a significant minority (20% - 34%) of drivers still agree with the proposition: 'A careful driver does not need to wear a seat belt';

- In major motorising countries including China, India and Brazil, seat belt use is very low, and poorly enforced. The reintroduction and enforcement of a seat belt law in Costa Rica in 2004, combined with a seat belt awareness campaign supported by the FIA Foundation, resulted in a 58% increase in front seat belt wearing rates.

Child Seats

- Children should always use a child seat or booster seat until they are approx 1.5m tall (age 8-11);
- Children under the age of four are ten times more likely to be killed in a car crash if unrestrained;
- According to US research, child safety seats are 71 percent effective in reducing fatalities among infants (younger than 1 year old) and 54 percent effective for toddlers (1 to 4 years old) in passenger cars;
- the use of belt-positioning booster seats lowers the risk of injury to children in crashes by 59 percent, compared with the use of vehicle safety belts;
- Babies and toddlers are up to four times more likely to be unrestrained if the car driver is not wearing a seat belt;
- Unrestrained infants are at risk of death in a car crash at speeds as low as 8km/h;
- Surveys suggest that up to 70% of child restraints are wrongly fitted or used. Universal child restraint fittings in cars (LATCH in the US; ISOFIX in Europe) are being gradually introduced to reduce scope for human error. ISOFIX will be compulsory in all new cars in Europe in 2011.

Head Restraints

- Whiplash injuries, affecting the soft tissue in the neck, are the most common type of injury to vehicle occupants. Mild symptoms, lasting up to three months, involve stiffness and tenderness in muscles in the upper back and neck, dizziness and headaches. Long term, serious, injuries can include neurological and musculoskeletal injuries and permanent impairment;
- Worldwide, whiplash injuries are believed to make up about 35% of all vehicle collision injuries. A study by the Transport Research Laboratory (TRL) in the UK found that almost 70% of people slightly injured in road crashes had suffered whiplash, sometimes in conjunction with other injuries;
- The economic cost of whiplash injuries in the EU 15 (pre enlargement) was estimated at €8 billion a year;
- For rear impact crashes alone in the US, the average cost of whiplash injuries in 2002 dollars is \$9,994 (which includes \$6,843 in economic costs and \$3,151 in quality of life impacts, but not property damage), resulting in a total annual cost of approximately \$2.7 billion;
- Although the front outboard seat occupants sustain most whiplash injuries, whiplash is an issue for rear seat passengers as well. In the US between 1988-96 an estimated 5,440 whiplash injuries were reported annually for occupants of rear seats;

- Design standards of head restraints by car manufacturers vary considerably. A number of independent crash tests are conducted, see for example www.ncwr.co.uk Thatcham (UK Insurance Research Centre); www.hwysafety.org US Insurance Institute for Highway Safety;
- The US Government has proposed a Global Technical Regulation (GTR) for head restraints, which would establish minimum global design standards. The proposal will be discussed at the World Forum for Harmonisation of Vehicle Regulations at the United Nations in Geneva in March 2005;

Tyres

- Tyres are often one of the safety elements most ignored by the general public. In research conducted by Bridgestone in 2004 the company found that just two in five consumers check their tyre pressure each month and only a one in three check their tyre tread depth each month. One in five never check either. Many people underestimate the importance of tyres and remain unaware of the fact that at any one time there are only 4 postcard sized pieces of rubber in contact with the road
- Tyre condition and pressure should be checked at least once a month in cold conditions;
- The minimum safe tread depth for tyres is 1.6 mm. Tread wear indicators appear at 1.6 mm depth and the tyre should be replaced;
- On a wet road the difference in stopping distance for new and worn tyres can be about one cars length – potentially the difference between braking safely and having a crash;
- Tyre pressure in cars falls naturally between 10-20kPa (0.1 – 0.2 bar) a month. Low air pressure affects the steering and road holding performance of the car;
- The US National Highway Traffic Safety Administration (NHTSA) estimates that 10,000 injuries and deaths in the US could be prevented annually by monitoring tyre pressure;
- In Europe, all new tyres must meet European standards for load/speed performance, shown by an 'E' or 'e' mark on the sidewall;
- In the US, 9% of passenger cars are being driven on at least one bald tyre, according to 2001 research by NHTSA. 9For purposes of this survey, a tyre was considered bald if it had 1/16th of an inch or less of tread depth);
- According to US government figures more than 90 percent of U.S. petrol stations are equipped with air pumps. However, nearly 10 percent of these pumps are out-of-order. Fewer than half of the pump-equipped petrol stations also provide a tire pressure gauge for customer use. One fifth of these petrol stations had faulty equipment;