



TECHNICAL NOTE

No drinking and driving for 17 to 20-year-olds Recommendation in the Chief Medical Officer's Annual Report 2007

The blood alcohol concentration (BAC) limit in the United Kingdom is 0.8 g/l, and is the same for all drivers. Many European countries have a limit of 0.5 g/l. The Chief Medical Officer has recommended a zero limit for younger drivers.

Young people at risk

Most young people drive responsibly. Some studies suggest that young people drink-drive less often than older drivers, and young drink-drivers may drink less alcohol than older drink-drivers, although important variables such as car ownership and detection levels can differ between age groups. However, alcohol has a more damaging effect on the safety of young and novice drivers. With or without alcohol, younger drivers have a higher risk of crashes than older drivers. With a blood alcohol concentration of 0.5 g/l their crash risk is six times greater than if they had not drunk at all.¹ Alcohol use increases the risk of a crash for young and novice drivers 2.5 times more than it increases the risk for older drivers.^{2,3}

The leading cause of death among 16 to 18-year-olds is transport accidents.⁴ In the United Kingdom in 2005, 17 to 19-year-old car drivers had 1,080 drink-drive accidents.⁵ A THINK survey⁶ in 2007 found that younger drivers were less likely to find driving after drinking two pints very unacceptable (36% of 15 to 29-year-old drivers, and 47% of drivers over 30 years old).

International adoption and success

- In Europe, 14 countries set the blood alcohol concentration limit for novice or young drivers at or less than 0.02 g/l, effectively a zero limit.
- In Ontario, Canada, the blood alcohol concentration for novice drivers was reduced from 0.8 g/l to zero in 1995. This led to a 19% reduction in crashes in which the driver was aged 16 to 19 years.⁷
- Australian states with a blood alcohol concentration limit of zero for novice drivers include Victoria, South Australia, Northern Territory, Queensland and Tasmania.⁸
- In the United States, the restrictions for novice drivers vary from state to state but almost all have a graduated licence for novice drivers with an associated limit on blood alcohol concentration. Florida, for example has a 0.2 g/l limit for drivers under 21 years old, and declares this to be 'zero tolerance'.⁹
- New Zealand also has a graduated licence scheme, with a blood alcohol concentration limit of 0.3 g/l for drivers under 20 years.¹⁰
- On 1 January 2006 the legal alcohol limit for novice drivers in the Netherlands was reduced to 0.2 g/l.¹¹ This applies to all drivers who have had their driving licence for less than five years. The Institute for Road Safety Research in the Netherlands (SWOV)

estimated that the reduction of the legal limit for novice drivers could result in a 5% reduction in the total number of alcohol crashes.

Evidence of effectiveness

A literature review of the components of graduated driving licence schemes¹² found that an absolute alcohol prohibition while holding a novice driving licence was effective in improving road safety.

A United States study found that when the acceptable blood alcohol concentration for under 21-year-olds in the state of Maine was reduced from 0.2 g/l to zero, night-time single vehicle injury crashes reduced by 36%. In the same study, when the age-specific zero blood alcohol concentration limit in Oregon was increased from 18 to 21 years, night-time single vehicle injury crashes reduced by 40%.¹³

Other considerations

Combined alcohol and drug use with driving is more frequent among young men and leads to a very high crash rate. This recommendation would be expected to reduce crashes involving combined alcohol and drug use.

Lowering the general alcohol limit for all age groups would require an increase in policing levels to be effective as the number of offenders would be increased. Without increased police time, the chance of heavy drinkers being caught would be reduced. A study of the effects of such a reduction of the legal limit in Finland has reached the same conclusion.¹⁴ However, having a zero limit for young drivers would not require a major increase in police control levels to be effective.

There are concerns that other factors, such as the use of mouthwash, may produce a blood alcohol concentration above absolute zero. Setting the level at zero sends a strong message that drinking and driving is unacceptable.

This recommendation aims to protect young drivers from the combined risks of alcohol and inexperience. It may be necessary to set the legal limit above zero, but at a level which still prohibits drinking a unit of alcohol: this is a matter for technical review.

Reaction

This risks unpopularity among some young people. The briefing paper for implementation in the Netherlands¹⁵ warns that:

'The young know that, in general, their age group has a high crash rate, but regard it as simply unavoidable... They see the driving licence as a right, and this right is no different for novice drivers than for experienced ones. Many of the young regard such measures as being meant to tease them, in which the good suffer with the bad.'

However, in countries with graduated licences these enjoy widespread support.^{16,17,18}

Conclusion

Young and novice drivers are particularly vulnerable to the effects of drink-driving. The recommendation in the Chief Medical Officer's Report for 2007 is an evidence-based measure to make them safer. It would place the United Kingdom among leading countries in improving the road safety of young people. It would not require a major increase in policing levels to be effective. There is a risk that this may be unpopular with some young people, but other countries that have implemented graduated licences for novice drivers have enjoyed widespread support. The reduction of the blood alcohol concentration limit in Ontario, Canada, in 1995 is a close parallel to the proposed change in the United Kingdom, and reduced crashes involving young people by 19%.

References

1. Mathijssen MPM (1999). Schatting van de effecten van verlaging van de wettelijke limiet voor alcoholgebruik in het verkeer; Advies aan het Ministerie van Verkeer en Waterstaat. R-99-11. SWOV, Leidschendam.
2. Combating Drink Driving: Next Steps: A Consultation Paper (1998) DETR.
3. World Health Organization (2004). Facts: Road safety – alcohol. WHO, Geneva, Switzerland.
4. Office for National Statistics. Data on request 2008.
5. Department for Transport Road casualties in Great Britain (2006). The Stationery Office: London, UK.
6. Angle H et al (2007) THINK! Road safety campaign evaluation: Annual survey 2007 report. BMRB Social Research, London, UK.
7. Senserrick T and Whelan M (2003). Graduated Driver Licensing: Effectiveness of systems & individual components. Report No. 209. Monash University Accident Research Centre, Victoria, Australia.
8. Senserrick T and Whelan M (2003). Graduated Driver Licensing: Effectiveness of systems & individual components. Report No. 209. Monash University Accident Research Centre, Victoria, Australia.
9. Baughan C and Simpson H (2002). Graduated Licensing: A review of some current systems. TRL Research Report 529. Transport Research Laboratory, Crowthorne, UK.
10. Drinking and Driving Policy Paper (2007). The Royal Society for the Prevention of Accidents http://www.rosipa.com/roadsafety/advice/driving/info/drinking_and_driving_policy_paper_2007.pdf
11. Institute for Road Safety Research (2007). SWOV Fact sheet: Young novice drivers. SWOV, Leidschendam, the Netherlands.
12. Senserrick T and Whelan M (2003). Graduated Driver Licensing: Effectiveness of systems & individual components. Report No. 209. Monash University Accident Research Centre, Victoria, Australia.
13. J.K Lacey, R.K Jones and C.H Wiliszowski. "Zero Tolerance Laws for Youth: Four States' Experience." U.S. Department of Transportation, National Highway Traffic Safety Administration.
14. Penttilä et al (2004). Roadside surveys in Uusimaa in Finland. Increase of the rate of motor vehicle drivers in traffic with a low blood alcohol content. Alcohol, drugs and traffic safety: Proceedings of the 17th ICADTS International Conference on Alcohol, Drugs and Traffic Safety, Glasgow, United Kingdom.
15. Institute for Road Safety Research (2007). SWOV Fact sheet: The graduated driving licence. SWOV, Leidschendam, the Netherlands.
16. Mayhew DR and Simpson HM (1996). The Effectiveness and Role of driver education and training in a Graduated Licensing System. Traffic Injury Research Foundation, Ottawa, Ontario.
17. NHTSA (1998). Saving teenage lives: the case for graduated driver licensing. US Department of Transportation. <http://www.nhtsa.dot.gov/people/injury/newdriver/SaveTeens/Index.html>
18. Williams AF. (2001) Teenage passengers in motor vehicle crashes: a summary of current research. Insurance Institute for Highway Safety: US.