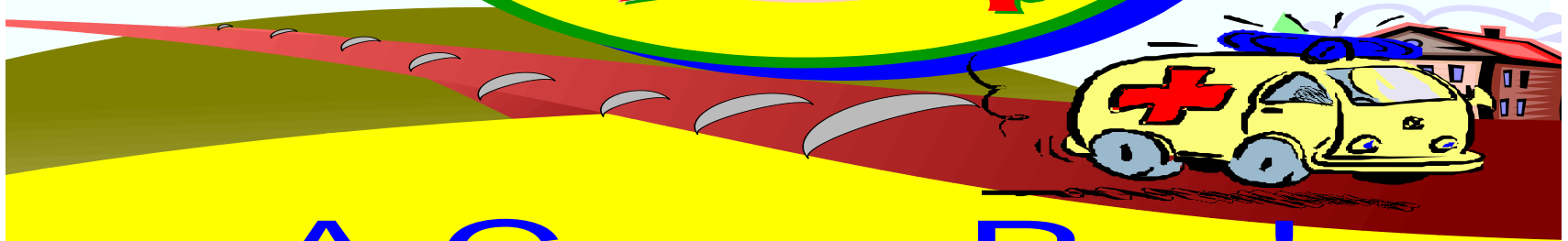


Seconds Count



Problems with Traffic Calming Projects

Speed Humps!



A Clinical Risk!

90% of Paramedics say that speed humps affect CPR adversely.

55% of Paramedics would add between 1 and 5 minutes when RESPONDING TO a 999 call!

Of those Paramedics who elected NOT to undertake a procedure due to travelling over road humps, *over 30% said the procedure was essential - and still chose not to do it!*

Are speed humps affecting *your* care?

Discover the only published research into:
Paramedics' attitudes to the effects of speed humps on resuscitation of patients en route to hospital, including general patient care and ambulance response times

Majestic Hotel, 28th June at 15:10

By Mark Belchamber
BSc (Hons) Para Sci, AASI, SR Para

(Training Officer/Paramedic, London Ambulance Service NHS Trust)

Speed Humps and Ambulances (Article Published in April 2004)

One of the people who gave evidence to the recent GLA Speed Hump Inquiry was Paramedic Mark Belchamber who works for the London Ambulance Service (LAS). His evidence criticised the problems they cause ambulance staff. In fact he did a study of such problems as a degree thesis which is well worth reading. It can be read on the internet at: <http://www.belchamber.org/speedhumps/>

The study main consisted of asking 36 paramedics from different parts of the country for their experiences, and their response to humps. For example, 66% would deviate to avoid humps even when on emergency calls, and half of them were willing to add 2.5 minutes to the response time as a result.

88% of paramedics felt that speed humps interfered with CPR or other medical procedures. All respondents considered that a number of patient conditions were affected detrimentally by speed humps, particularly spinal or back injuries, and fractures generally.

In summary, it was clear that ambulance staff take a very dim view of the impact of speed humps on their ability to do their job, and that there are negative implications for patients.

Patients Killed by Speed Humps (Article published in April 2003)



The Chairman of the London Ambulance Service, Sigurd Reinton, recently claimed that speed humps are killing hundreds of Londoners by delaying 999 crews. He said “For every life saved through traffic calming, more are lost because of ambulance delays.”

There are about 8,000 heart attack victims in London every year, and London has a particularly poor survival rate. One reason is no doubt because even a small delay increases the death rate enormously. For example 90% of victims survive if treated within 2 minutes, but it falls to 10% if treatment is delayed for 6 minutes. So for every additional minute of delay caused, up to an extra 800 victims of cardiac arrest could die. This compares with a total of 300 people who die from traffic accidents.

Mr Reinton complained that the increasing number of anti-car measures such as speed humps, road closures, road narrowing and throttle points caused significant delays in responding to emergencies. Ambulances had to go even slower if carrying a critically ill patient. Research in the USA supports these claims.

One report from Boulder, Colorado suggests that for every life saved by traffic calming, as many as 85 people may die because emergency vehicles are delayed. It found response times are typically extended by 14% by speed-reduction measures. Another study conducted by the fire department in Austin, Texas showed an increase in the travel time of ambulances when transporting victims of up to 100%.

Are there alternatives to using speed humps to cut dangerous traffic speeds, e.g. near known hazards?

Yes. At junctions (which are often the location of many accidents), mini-roundabouts or speed tables can be used. **The former do tend to result in minor vehicle damage accidents however.** The latter can be more comfortable than speed humps, but still very effective at cutting speeds (as in Blackbrook Lane, Bickley for example).

One very effective and relatively low cost approach is the use of speed display devices or variable message signs (ones that display a vehicles speed and remind the driver if they are over the speed limit, or warn of particular hazards). Other alternatives are improved signage (e.g. hazard warning signs, speed limit repeaters, "slow" signs), "gateway" treatments of various kinds including width restrictions, rumble strips, and other devices.

As to which is most appropriate depends on the nature of the road and the hazards present in it. **In fact, it is usually cheaper and more effective to make minor changes to road markings, curb lines, improve sight lines and signage** to tackle particular road safety problems, although unfortunately putting in speed bumps is often seen as a cheaper and simpler option (they require less thought) than really tackling the source of accidents in a proper manner

"The Effects of Speed Humps and Traffic Circles on Responding Fire-Rescue Apparatus in Montgomery County, Maryland"

<http://www.calmingrisk.com/FireMtgCoMDtestSUMMARY.pdf> (link added June 2011
NEW LINK)

Montgomery County Fire and Rescue Commission, August 1997

"The results of the Montgomery County speed hump and traffic circle tests confirmed that these two types of traffic calming devices cause delays for fire-rescue vehicles en route to incidents. The amount of delay was found to be dependent upon three factors -- vehicle type/size, type of traffic calming device, and driver discretion regarding speed."

"Deaths Expected from Delayed Emergency Response Due to Neighborhood Traffic Mitigation"

<http://www.calmingrisk.com/Bowman1997studyBoulderCO.pdf> (link added June 2011
NEW LINK)

Ronald R. Bowman, Submitted to the City Council of Boulder, Colorado, 3 April 1997

"Even with these rather absurd allowances, nearly 10 lives are predicted to be lost, over time, for each one saved by full implementation of the NTMP."

This study has been replicated elsewhere with similar results. The full text of the paper as presented to the Boulder City Council has not been available online for a number of years.

"Speed trapped "

<http://www.orlandoweekly.com/features/story.asp?id=1887> (link added September 2005)

"It is accepted, however, that speed humps do slow emergency vehicles, be it ambulances or fire trucks, and Regency Park residents fear those delays may end up costing lives."

Orlando Weekly, August 16, 2000

Rapporteur: Mr. Jean-Martin Kuntschen (TCS)

SPEED BUMPS CAUSE TEN TIMES MORE AIR POLLUTION

An impact study on the environment carried out in Austria and based on normal driver behaviour demonstrated that speed bumps had negative effects on both the environment and fuel consumption. A regular traffic flow would therefore always be more environment-friendly.

Jen Chaney, "Fatal fire renews speed hump debate," GAITHERSBURG GAZETTE, July 8, 1998
(Impact of delay caused by humps on street on rescue of child.)

Problems Associated With Traffic Calming

By Kathleen Calongne

Traffic calming devices, such as speed humps and traffic circles are spreading to communities across the United States, without regard to their risks. The U.S. Department of Transportation (USDOT) has avoided the examination of the problems associated with intentionally imposing vertical and horizontal deflection on vehicles and vehicle passengers, in order to encourage the proliferation of devices on city streets.

Deflection devices built to slow passenger vehicles, create even greater delays to emergency response vehicles. The longer wheel-base, stiff suspension, high vehicle weight, as well as the sensitive equipment and injured victims transported by these vehicles, requires drivers to slow almost to a stop to negotiate the devices safely.

An unethical attempt has been made to silence the objections of rescue personnel to delays to emergency response by deflection devices. Fire chiefs, as city appointees, fear professional retribution and often will not voice concern until the level of risk becomes intolerable.

Problems Associated With Traffic Calming Cont'd

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While delay from individual devices is sometimes measured, the cumulative effect of *series of devices* is often ignored. Series of devices turn seconds of delay into minutes, as vehicles fail to regain cruising speed between the devices. Calming devices impose permanent, 24-hour delays to emergency response, unlike traffic congestion which occurs periodically. A study conducted by the fire department of Austin, Texas, 1997, showed an increase in the travel time of ambulances of up to 100% transporting victims.

...

While calming devices are built on the premise they will reduce accidents, a comprehensive study commissioned by the ITE and the Federal Highway Administration (FHWA) on traffic calming projects in the United States concludes:

"Traffic calming in the U.S. is largely restricted to low volume residential streets. Collisions occur infrequently on such streets to begin with, and any systematic change in collision rates tends to get lost in the random variation from year to year. This limits our confidence in drawing inferences about safety impacts of traffic calming."

Problems Associated With Traffic Calming Cont'd

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An increase in accidents has occurred after some installations. Experimental speed humps placed on a street at a school in Portland, Maine registered an increase in accidents of 35%. Accidents increased 100% after the installation of an experimental traffic circle in Boulder, Colorado. However, the circle in Boulder and the humps in Portland remain on the street today.

...

People across the United States are opposing the installation of deflection devices on city streets that damage vehicles, injure vehicle passengers, increase pollution and gas consumption and delay emergency response. I have researched traffic calming projects since 1996, and have compiled my research into a 400-page report on the "Problems Associated with Traffic Calming Devices." I offer the report to all interested individuals at my cost. The following is a summary of some of the issues addressed in my report.