

# Why speed cushions are cycle unfriendly, and how to minimise their impact: November 2002

**Speed cushions, Why they are not a cycle friendly measure, and how to minimise their impact  
Why are speed cushions bad for cyclists?**

## **Competition for flat roadspace**

Cushions force traffic to use the same piece of flat road space. Depending on traffic volumes and road conditions, this can be very dangerous as it can result in frustrated motorists aggressively trying to push their way into the restricted space adjacent to a cushion. There is rarely enough room for a cycle and car to safely pass at a set of cushions.

Cushions positioned alongside parked cars are particularly dangerous, as many cyclists will be 'persuaded' by motor traffic to pass on the inside of the cushion, thus putting themselves at risk of colliding with an opening car door.

## **Pushing cyclists into unfamiliar road positions**

Cyclists of various persuasions and expertise may routinely cycle anywhere in the carriageway, ranging from in the gutter/skimming parked cars, in the middle of their lane, or even close to the centre line. Wherever cushions are located, some cyclists will be forced to veer from their preferred positioning into that dictated by the gaps between the cushions. This requirement for cyclists to reposition themselves is inherently dangerous as many motorists will not anticipate this.

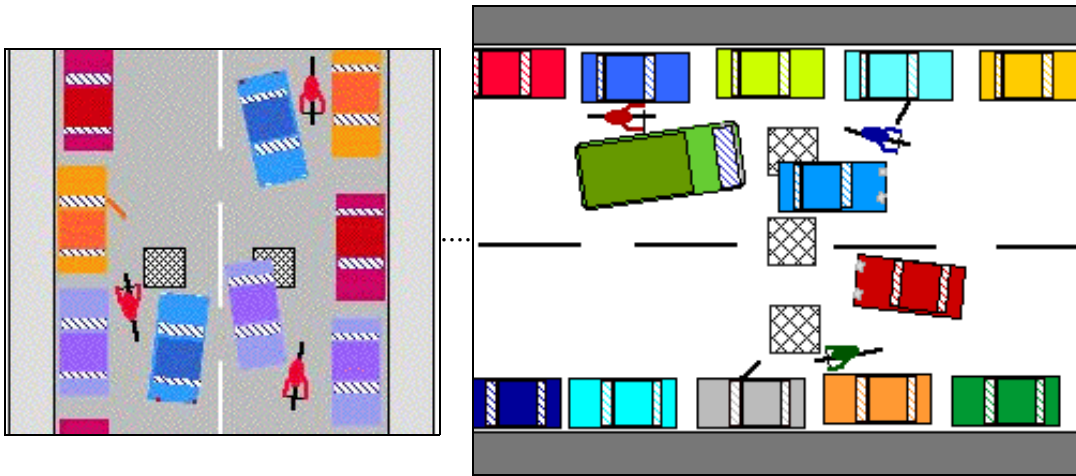
Where inexperienced cyclists are forced into a more dominant (and for them, uncomfortable) road position, this may lead to last minute weaving, and/or a visually perceptible loss of confidence (which more aggressive motorists will exploit). Also, motorists will tend to zig-zag to negotiate cushions, which means that they may suddenly manoeuvre without warning.

## **Larger vehicles not slowed by cushions**

Wide wheelbase vehicles (vans & lorries) can speed over cushions as their wheels straddle the obstacle; some of the 'top of the range' cars with expensive suspension are also able to overcome much of the speed reduction intentions of cushions. Given the disproportionately high rate of cyclist casualties with respect to lorries, this cannot be in cyclists' interests, let alone pedestrians'. Indeed, one would presume that if a street is being traffic calmed, you would want to discourage heavy vehicle use, not provide them with a potential rat run.

## **DETR Guidance recommends bypasses for cushions**

There is a DETR traffic advisory leaflet (on 'horizontal and vertical traffic calming measures') which advises the use of cycle bypasses where cushions are deployed; clearly even the experts are nervous about mixing cushions & cyclists.



*Worst case impact of speed cushions which have not been positioned with cyclists in mind.*

In view of the above factors, the Campaign strongly recommends that either speed humps (with a sinusoidal profile) or speed tables are used instead of cushions.

### **Making cushion less cycle-unfriendly**

There will be occasions where speed cushions have to be used (eg due to objections to other vertical measures from the emergency services or bus operators) and there is not room for suitable cycle bypasses (see above).

In these cases, the cushions should be positioned so that the centre point between two cushions is approximately one metre away from the kerb, or where there is adjacent car parking, one metre from the outside edge of the parking bay; or the inside edge of the cushion is approximately one metre away from the kerb, or where there is adjacent car parking, one metre from the outside edge of the parking bay.

This positioning is consistent with the optimum road positioning for cyclists in terms of safety, and thus reinforces the safe riding position. Of course there will be many cyclists who for whatever reason cycle closer to the edge of the carriageway, or nearer the centre; so even optimally placed cushions will still lead to cyclists pulling in or out to negotiate cushions.

For further information see our web page on traffic calming measures.