I feel very strongly that if mobility scooters are used on the footpath and in shopping centres then they should be restricted to a slow walking pace.

How a mobility scooter accident has affected my family

My elderly father has been hit from behind on two separate occasions while walking on the pavement by mobility scooters driven by people who haven't taken enough care. He lives in the UK but the injuries he received are just as likely to occur here. My understanding is that on neither occasion did the scooter driver stop (even though they must have known that they hit and hurt a pedestrian) and on the second occasion the driver then went on to hit another person immediately afterwards.

On the first occasion my father ended up with a skin tear on his leg which did not heal well and has been a recurrent problem due to his age.

On the second occasion he ended up with a broken ankle, which he didn't immediately realise and he collapsed on the way home. The collisions put strain on his hip and he is now waiting for a hip operation.

The impact of such accidents goes beyond the initial pain and suffering of the individual. In my father's case he was unable to get up the stairs and my parents' only living room became his sick room for weeks which was highly inconvenient. My parents don't drive so transport was required to many hospital appointments – they spent a lot of time waiting around and then there were medical costs- not all covered by the public purse. And, of course the whole family was terrified that (as often happens with the elderly) the injuries caused by his being struck by the mobility scooter would start a downward spiral. We now have to hope he will survive the hip operation (required after the second incident) and that it will be a success

Is a mobility scooter a replacement for a car or to help someone who has problems walking to get about?

I've seen arguments that restricting speeds will increase journey times for anyone using a mobility scooter as a car replacement. I feel very strongly that the purpose of a mobility scooter used on the pavement (rather than upon the road) is to allow people who struggle to walk to be mobile. If they are on the pavement these vehicles (and they are vehicles) are not replacements for cars and the "need for speed" is a spurious argument … walking pace is fine for a walking replacement.

Slower speeds allow more reaction time for drivers and pavement users

Where people buy a mobility scooter because family, friends, doctor or the licensing authorities have convinced them to stop driving because of cognitive impairment, slower reflexes or poorer eyesight then the factors that made the driver a danger on the road also make them a danger on the pavement. Travelling at walking pace allows such a driver more opportunity to understand what is happening around them and allows other pavement users more time to take evasive action should it be required.

Physics of collision

Halving the speed limit will reduce the severity of injuries if the scooter hits a person. This is because of the laws of physics.

The formula used to measure kinetic energy is (0.5 x mass x (velocity*velocit)) .

At 5 kph or 13.88 m/second the velocity squared multiplier is 192.9.

At 10 kph or 27.77 m/second the velocity squared multiplier is 771.6. which is 4 times the multiplier at the lower speed (not double as one might have expected)

i.e. halving the speed limit in this example reduces the impact of the collision by a factor of 4. It is this formula that makes it worth having any reduction in speed limit - hence the "wipe of 5" campaign against speeding car drivers and the push to reduce speeds to 40 kph in some urban streets. Even a small reduction in speed makes a difference.

A quick search of the internet reveals that the lightest mobility scooter weighs in at about 45kg and some of the heavier ones can be up to 155kg when the batteries are fitted - that is before the weight of the person (and often people who use them are on the large side 100kg+ because they are unable to exercise). So it is hardly surprising that when impacts with pedestrians occur they cause injuries.

Mobility Scooters are poorly designed for collisions with pedestrians

Car manufacturers spend a lot of money making cars safer in car-pedestrian collisions - mobility scooters often lack aerodynamics and have things like protruding front baskets (at child head height).

Being struck on the lower half of the body by something that could weigh 245 kg+ at 10kph is never going to do anyone any good and could kill a child or a dog.

Silent and potentially deadly at speed

Often these vehicles are very quiet when compared to motor traffic noise so can't be heard by those with good hearing never mind the hearing impaired. The slower they travel the less damage will be done in the event of an impact with a person

Stricter access to mobility scooters / responsibilities of their owners

While I am not in favour of making it unduly difficult for people who need a mobility scooter to get around I do think that there does need to be a clear framework around their use

- Perhaps Mobility Scooter owners should need a note from their doctor to say they have discussed whether they are capable of using a mobility scooter safely? With a regular review required?

- Mobility Scooter owners shouldn't be able to hand over their money and drive off without at least receiving basic instruction and taking a very simple proficiency test. I realise that in

rural areas this presents a problem - perhaps it is something that could be done by someone in the community - driving instructor, pharmacist, policeman???

- Mobility Scooter owners who are involved in an injury accident should have the same responsibilities as car drivers - you must provide your name and address to the injured party if asked. You can't just drive off, and if you do you should be subject to exactly the same penalties as a hit and run driver.

- I believe there should also be consideration about whether some form of third party insurance should be required.