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MONASH University | ACCIDENT RESEARCH CENTRE | NRSPP NATIONAL ROAD SAFETY PARTNERSHIP PROGRAM

CAR PARKS ARE MISJUDGED

UNDERSTAND CAR PARK INCIDENTS

There is an elevated risk of collision in car parks due to inherently dangerous features such as multiple directions of travel, narrow spaces, large pylons, and poor lighting.

As such, it's unsurprising that low-speed manoeuvring and parking incidents are extremely common amongst those who drive for work, making up between 10–21% of fleet insurance claims each year.

THE MOST COMMON CAR PARK INCIDENTS

Analysis of car park incident insurance claims reveals that most claims fall under three categories: collision with parked vehicles, moving vehicles, or stationary objects.

Collision With a Parked Vehicle

Hitting a parked car (or having your parked car hit) represents more than half (51%) of reported car park collisions.

Unsurprisingly, the chance of hitting a parked car increases 6-fold in carparks compared to other driving environments (representing 8% of total collisions across all environments).

Collision With a Moving Vehicle

While less common than collisions with parked vehicles or stationary objects, collisions between two moving vehicles has been found to account for over 20% of car park collisions.Over half of these incidents (64%) occurred while at least one vehicle was reversing.

Collision With Stationary Objects

Hitting stationary objects has been found to account for between 25–53% of car park incidents reported each year. You're much more likely to hit a stationary object when navigating a car park then other road environments, with stationary-object crashes accounting for only 18% of total yearly incidents.

Independent analysis of insurance data revealed that the most common car park objects collided with include:

- Bollards and Poles (30%)
- Security barriers and shutters (19%)
- Pillar and columns (10%)
- Walls (7%)

Importantly, all three collision categories are highly avoidable. Despite this, drivers often disregard the importance of being mindful of their behaviour and choices while navigating car parks.

Although car park collisions are often considered 'minor' collisions, they can carry a major cost.

Human Cost

As low-speed environments, car park collisions do not commonly result in serious injuries. Despite this, incidents and fatalities can and do occur.

VicRoads noted that if pedestrian crashes in car parks were part of the state road toll, car park incidents would make up 0.2% of fatalities from motor vehicle crashes, 0.3% of serious injury from motor vehicle crashes, and 3.3% of pedestrians seriously injured in Victoria[3].

These incidents disproportionally affect the more vulnerable in our community.

Financial Cost

Incidents in car parks result in significant time and money loss. Insurance data reveals that the average net incurred cost of a car park incident (including both damage to the insurance and third-party vehicles) is approximately $3,000

This does not include additional costs, including time lost completing insurance claims, and potential profit losses resulting from vehicles being out-of-service during repairs.

Older Adults

Older people over the age of 65 have been reported to be involved with approximately 45% of all car park injuries.

Several factors contribute to this vulnerability, including:

- Slower reaction times.
- Limited agility to quickly avoid situations which may result in a collision.
- Reduction in perceptual functions, including hearing and vision.

Individuals Who Are Blind or Have Low Vision

The advent of electric and hybrid vehicles, which are quieter than vehicles with internal combustion elements, have been found to pose a significant challenge for pedestrians who are blind or have low vision.

35% of people who are blind or have low vision report experiencing either a collision or near-collision with an electric or hybrid vision due to being unable to hear them coming. This risk is even more substantial in car parks, where vehicles are often travelling at low speeds.

Children

44% of off-road incidents that injure children occur in car parks

80% of children car park fatalities happen because they are not within an adults arm reach

50% of the time children are found to leave their parents when getting out of the car in a park

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Approximately 10% of all child pedestrian fatalities and injuries in Australia occur in the off-road environment, including car parks. Data from the United States indicates that 44% of off-road injuries to children occur within a car park. 51 children under the age of 14 were seriously injured in Australian car parks between 2002–2010, an average of six children per year

Numerous factors contribute to the vulnerability of children in car parks, including:

- Low conspicuity due to their smaller stature, an issue exacerbated by the presence of larger vehicles and other structural elements in car parks.
- Children have a lower capacity to process possible danger, leading to higher-risk behaviours such as standing behind vehicles.
- Children are not able to respond to or detect danger with the same speed as adults.
- Until at least the age of 10, children rely on their parents for basic road safety information. An even momentary lapse of attention from a parent, or unpredictable behaviour from the child, can lead to a dangerous situation.

DRIVER TIPS:

- Always assume there could be vulnerable people around (including children) when navigating a car park or driveway, and slow down. The higher your speed, the higher the potential for harm.
- Take notice of pedestrian walkways, bike pathways and exclusion zones marked out on the floor of the car park. Keep these in mind when navigating the car park.
- Remember; small children may not always be seen in rear cameras. Take extra precaution to check your surroundings before reversing, use your side and rear-view mirrors, and check blind-spots.
- To the best of your ability, expect the unexpected; children or distracted adults may not always follow the pedestrian paths. Be prepared to safely stop at all times to give way to pedestrians.
- If you operate an electric or hybrid car, be mindful that it is more difficult for pedestrians to detect your movements and take extra caution around high-pedestrian areas.