Fractures in Pedestrian and Bicyclist Motor Vehicle Crashes

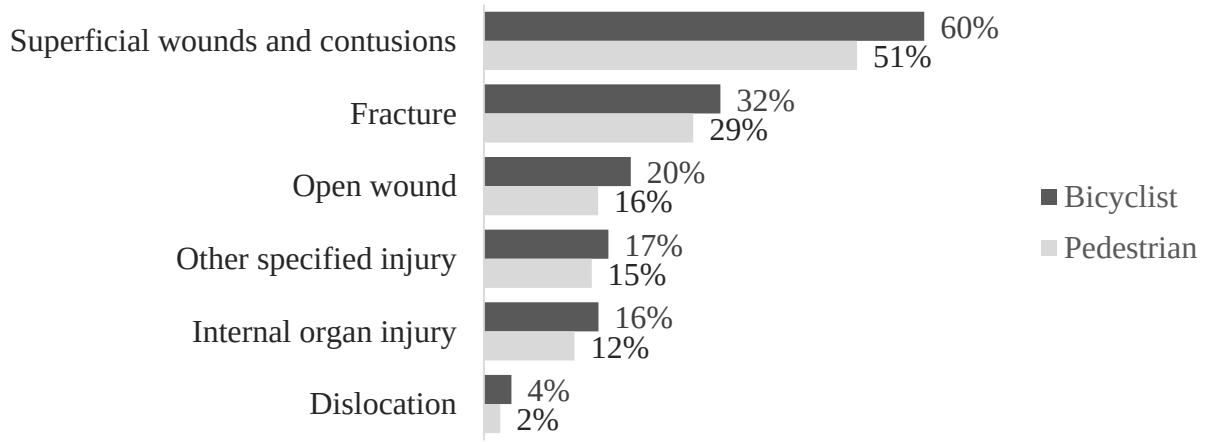
Based on a Linked 2017 North Carolina Crash and NC Healthcare Association Hospital Encounter Dataset
All percentages have been rounded to the nearest integer value, so percentage totals may not sum to 100%;
n=1,105 pedestrians (810) and bicyclists (295)

Crash records of pedestrian and bicyclist crashes provide no indication of the nature of the injuries. Fractures are a type of serious injury which can be examined using hospital encounter data and the CDC's Proposed ICD-10-CM External Cause Matrix, which maps ICD-10-CM diagnosis codes according to the nature and location of injury.

Linked crash and health data provide ways to examine the nature of injuries for pedestrian and bicyclist crash victims.

Most Common Specified Injury Types for Pedestrians and Bicyclists*

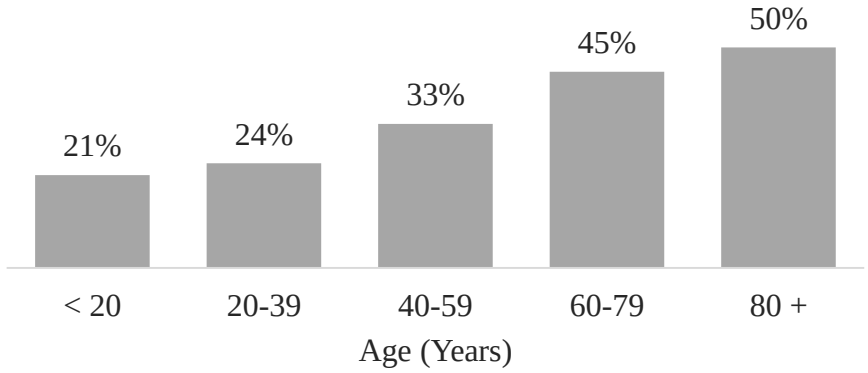
(n=1,105)



Almost a third of injured pedestrians and bicyclists had at least one fracture.

*Bicyclists and pedestrians can have more than one injury diagnosis, so percentages do not add to 100%.

Percentage of Injured Pedestrians and Bicyclists with Fractures by Age Group (n=326: 95 bicyclists + 231 pedestrians)

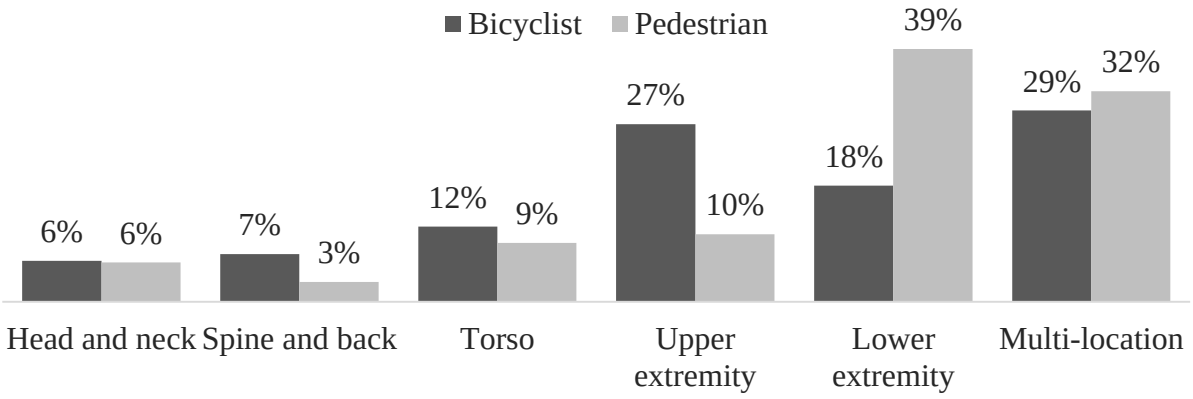


Fractures occur more frequently with increasing age for pedestrian and bicyclist crash victims.

Percentage of Pedestrians and Bicyclists with Fractures with Hospital Length of Stay > 1 day (n=138)

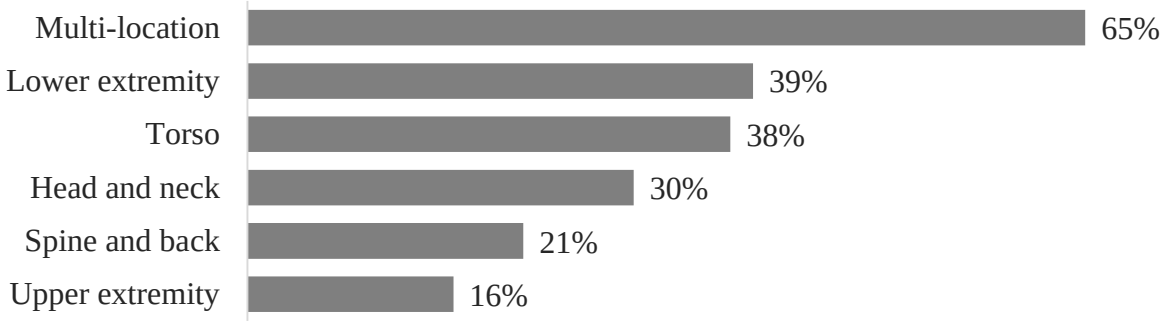
Pedestrians with fractures were more likely to be hospitalized for >1 day, as compared to bicyclists with fractures.

Proportion of Injured Pedestrians and Bicyclists with Fractures by Body Location (n=326)



Upper extremity fractures were more common with injured bicyclists while lower extremity fractures were more common with injured pedestrians.

Percentage of Pedestrians and Bicyclists with Lengths of Stay > 1 Day by Location of Fracture (n=138)



Nearly two-thirds of all pedestrians and bicyclists with fractures in multiple locations were hospitalized for more than 1 day.

Project Information

Funding for this project, "Linking Crash Reports to Medical Data in North Carolina: A Strategic Implementation Plan" was provided by the NC Governors Highway Safety Program. For more information, please see additional reports at the following link. http://cchi.web.unc.edu/transportation-health-data/