Since 1990, the percentage of adult motorcyclists age 50 or older has doubled. Now, about a quarter of all the motorcyclists in the U.S. are 50 or older. And, not only are there more motorcyclists age 50 or older on the roadways, these motorcyclists also make up the same demographic of riders who have a better chance of suffering from severe injuries in motorcycle accidents.

A Brown University study was recently published in the journal Injury Prevention. The study looked at national emergency room reporting statistics and the different types of injuries sustained by motorcycle riders between 2001 and 2007. In total, researchers from Brown University analyzed data from roughly 1.5 million motorcycle accidents.

According to the study, older riders are two and a half more times likely to end up hospitalized than a younger rider after an accident. A younger rider is described as someone in their 20s or 30s. Middle-aged riders were also more likely to end up suffering from serious injuries in a motorcycle crash than younger riders.

When a motorcyclist is injured in a crash, it is important to note that the types of injuries — statistically — are quite different among the age demographics. For example, according to the study, older riders are more likely to end up suffering from internal organ injuries, like brain injuries. Younger riders are more likely to end up with cuts, scrapes and sprains.

Bone fractures were also the most common injury among all riders, but older riders were more likely to suffer these fractures on their upper trunks, while younger riders were more likely to break their arms.

Dr. Flash Gordon, who was not involved in the Brown University study, did weigh in on the different types of injuries and points to the fact that the types of motorcycles typically favored by older riders may have something to do with their injuries. Gordon said this is because older riders tend to prefer larger, faster bikes. More weights and speed could be part of the reason that their injuries tend to be more severe.

Additionally, researchers from the study also noted that there are physiological changes, as well as factors such as delayed reaction time and worsening vision, that may play a role in older adult motorcyclist accidents.