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Trauma Patterns Among Pedestrians and Cyclists Involved in a Motor Vehicle Collision

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Trauma Patterns Among Pedestrians and Cyclists Involved in a Motor Vehicle Collision

Of the 1.35 million deaths that occur annually worldwide due to motor vehicle collisions (MVCs), more than half of these involve pedestrians, cyclists, and motorcyclists. In Canada, there is an increasing number of motor vehicle pedestrian (7%) and cyclist (2.5%) collisions compared to previous years. In Ontario, these MVCs involving pedestrian and cyclist deaths are investigated by the Office of the Chief Coroner for Ontario which include autopsies done by pathologists who document the injuries sustained. My research involves collecting injury data from the pathologists' reports and crash data (vehicle type, speed, impact zone, location) from the police report to understand the injury mechanisms. Using this information, I plan on creating a predictive model using machine learning that can be used not only by pathologists to assist coroners and police investigators in collision reconstruction (especially hit and run's), but also provide evidence-based data to emergency or trauma centers for triage.