Background Trauma is one of the leading causes of death and disability in South Africa. There is a paucity of data describing the prehospital trauma burden and the aim of this study was therefore to describe the epidemiology of trauma emergencies managed by the Western Cape government Emergency Medical Service (WCG EMS) in South Africa.

Methods This retrospective study included a descriptive analysis of all trauma patients managed between July 2017 and June 2018.

Results The WCG EMS managed 492,303 cases during the study period. Of these cases, 168,980 (34.3%) were trauma cases. The majority of patients (66.4%) were males and between the socio-economically active ages of 21–40 years old (54.0%). Assaults were the most common cause of trauma emergencies, accounting for 50.2% of the EMS case load managed. The patient acuity was categorised as urgent for 47.5% of the cases, and 74.9% of the prehospital trauma burden was transported to a secondary level health care facility for definitive care.

Conclusion This is the first report of the prehospital trauma burden managed in the Western Cape of South Africa. The Western Cape suffers a unique trauma burden with a high proportion of assault and violence related trauma.