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The Perception of Load Carriage as a Risk Factor for Injury in U.S. Army Soldiers: 835: June 1 11:00 AM - 11:15 AM

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The prevention of musculoskeletal injury is a principal concern of clinicians who care for military servicemen and the commanders responsible for their well-being. Anecdotal reports indicate that Soldier load carriage may contribute to injury, but epidemiological evidence is lacking.

PURPOSE: To survey Soldiers about the circumstances of their injury and perception of load carriage as a contributor to musculoskeletal injury.

METHODS: Self-reported musculoskeletal injury data were collected on 207 Soldiers of the U.S. Army's 101st Airborne Division (Air Assault). Soldiers were asked to provide a historical account of all injuries and answer specific questions about load carriage. Questions included whether they were carrying load; when the injury occurred; the amount/type of load; the time duration that load was worn prior to the injury; and whether they considered load carriage as a contributor to the injury.

RESULTS: A total of 207 injuries occurred during organized military activities. The average number of injuries reported per Soldier was 1.0 ± 1.3 . Fifty-eight Soldiers reported that they were carrying load when one or more of their injuries occurred. Soldiers reported that 77 of the 207 (37.2%) injuries occurred while they were carrying a load; of these load-associated injuries, 24.7% (19/77) occurred during deployment. The majority of these injuries (61/77, 79.2%) were to the lower extremity or spine. Soldiers indicated that carrying a load contributed to their injury in 56 of the 77 cases (72.7%). According to the Soldiers, the total weight of their load was 81.5 ± 53.9 pounds (44.5 ± 27.1 % body weight). In 25 of the injuries, load was worn each day on average 1 to 4 hours prior to injury.

CONCLUSIONS: A large proportion of injuries occurred while Soldiers were carrying load with Soldiers indicating that load carriage contributed to injury in a majority of these cases. Although load carriage as a specific risk factor for injury has not been established, it is a possible contributor, and warrants more detailed examination. Special consideration should be given to the prevention of injuries during deployment due to environmental conditions and geography.

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