## Acute and Chronic Musculoskeletal Injury in Para Sport: A Critical Review



Yetsa A. Tuakli-Wosornu, MD, MPH<sup>a,\*</sup>, Evgeny Mashkovskiy, MD, PhD<sup>b</sup>, Taylor Ottesen, BS<sup>c</sup>, Mark Gentry, MA, MLS<sup>d</sup>, Daniel Jensen, DPT<sup>e</sup>, Nick Webborn, MB BS, FFSEM, MSc<sup>f</sup>

## **KEYWORDS**

- Injury epidemiology Musculoskeletal injury Paralympic sport Para athlete
- Review

## **KEY POINTS**

- Seated Para athletes sustain upper extremity injuries more commonly, whereas ambulant Para athletes frequently sustain lower extremity injuries.
- The upper extremity is the most commonly injured area in all Para athletes, unlike ablebodied athletes for whom lower extremity injuries predominate.
- Minor soft tissue injuries are the most common injuries among Para athletes, similar to injury patterns observed among able-bodied athletes.
- Football 5-a-side, powerlifting, Goalball, Wheelchair fencing, and Wheelchair rugby are the highest risk summer sports; ice hockey, alpine skiing, and snowboarding are the highest-risk winter Paralympic sports.
- Compared with elite Para athletes, recreational and youth Para athletes remain understudied in the literature.

The authors have nothing to disclose.

E-mail address: yetsa.tuakli-wosornu@yale.edu

<sup>&</sup>lt;sup>a</sup> Department of Chronic Disease Epidemiology, Yale School of Public Health, 60 College Street, New Haven, CT 06510, USA; <sup>b</sup> Department of Sports Medicine and Medical Rehabilitation, Sechenov University, 2-4 Bolshaya Pirogovskaya Street, Moscow 119991, Russia; <sup>c</sup> Department of Orthopaedics and Rehabilitation, Yale School of Medicine, 47 College Street, New Haven, CT 06511, USA; <sup>d</sup> Cushing/Whitney Medical Library, Yale University, 333 Cedar Street, New Haven, CT 06510, USA; <sup>e</sup> Department of Exercise Science, Black Hills State University, 1200 University Street, Spearfish, SD 57799, USA; <sup>f</sup> Centre for Sport and Exercise Science and Medicine (SESAME), School of Sport and Service Management, University of Brighton, Mithras House Lewes Road, Brighton BN2 4AT, UK

<sup>\*</sup> Corresponding author.