In-Season Injury and Health-Related Quality of Life among Collegiate Athletes
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For many athletes, sport-related musculoskeletal (MSK) injuries result in significant time loss from activity and declines in athletic performance. These events may negatively impact health-related quality of life (HRQoL).

**Purpose:** To determine the effect of MSK injuries sustained during the competitive season on HRQoL among collegiate athletes.

**Methods:** 160 Division I collegiate athletes (mean age=19.6+1.4, 117 males) at a large public university completed the Short Form 12v2.0 Acute Recall (SF-12) prior to the start of the competitive season (PRE) and within 1 month following the end of the competitive season (POST). Participants included athletes not injured in the prior 6 months who competed in football (n=73), soccer (n=43), cross country (n=35), and volleyball (n=9). Data on injuries sustained during the season was collected from a medical database maintained by sports medicine staff. SF-12 raw scores were converted to norm-based scores via a linear z-score transformation. Differences (median (IQR)) in PRE and POST Mental Composite Score (MCS) and Physical Composite Score (PCS) were analyzed using Wilcoxon signed-rank and Mann Whitney U tests.

**Results:** Among athletes who suffered an in-season MSK injury (n=55), PCS significantly decreased (p=0.023) over the season (PRE=56.71 (54.24, 57.76), POST=55.86 (52.14, 56.71)) while MCS remained unchanged (p=0.208). Athletes who underwent surgery during the season (n=10) showed no change in PCS (p=0.097) or MCS (p=0.722). Among athletes who did not sustain an injury (n=105), MCS significantly decreased (p=0.003) pre- to postseason (PRE=57.06 (54.10, 59.43), POST=54.79 (51.73, 57.16)) while PCS did not change (p=0.289). Postseason PCS was significantly lower (p<0.001) among athletes who underwent surgery (POST=51.63 (48.72, 54.95)) and among athletes who suffered a MSK injury (POST=55.86 (52.14, 56.71) compared to uninjured athletes (POST=56.71 (55.09, 57.76)).

**Conclusion:** Among collegiate athletes, in-season MSK injury negatively affected physical aspects of HRQoL. Sports medicine providers should be aware that MSK injury can impact, not only athletic performance, but also self-perceived physical health and function among collegiate athletes.