

## **ADDITIONAL FILE 3: Data Extraction Items**

### **1. Study Characteristics**

- a. Setting
- b. Study Design
- c. Sample Size
- d. Duration of follow-up/surveillance period
- e. Type of control
- f. Methods and intervention details
- g. Measurement techniques
- h. Measurement time points

### **2. Potential risk factors**

- a. Occupation
- b. Duration of service/participation/deployments
- c. Demographic, Anthropometric, and Biological
  - i. Sex
  - ii. Age
  - iii. Race
  - iv. Height
  - v. Somatotype
  - vi. Body composition (fat mass, lean mass, fat percentage, body mass index)
  - vii. Bone composition (density, mass)
- d. Workload
  - i. Running mileage
  - ii. Dosage and timing of activity exposure
  - iii. Load carriage magnitude and frequency
  - iv. Footwear
- e. Personal History
  - i. Physical activity
  - ii. Previous injury
  - iii. Smoking
  - iv. Medication use
  - v. Vitamin D physiology
  - vi. Sleep quality/quantity
  - vii. Mental/behavioral health
- f. Physical Fitness
  - i. Aerobic capacity
  - ii. Anaerobic capacity

- iii. Flexibility
- iv. Maximal voluntary dynamic or isometric muscular strength
- v. Maximal muscular power
- vi. Movement Screen (e.g. FMS)
- vii. Muscular Endurance

### 3. Outcomes

- a. Injury characteristics
  - i. Definition
  - ii. Structure(s) or location(s)
  - iii. Disorder(s)
  - iv. Classification (e.g. overuse vs. acute)
- b. Effect of intervention(s) on limited duty days
- c. Effect of intervention(s) on healthcare utilization or employment costs
- d. Indicators of acceptability, efficacy, and tolerability
  - i. Attrition for any reason (acceptability)
  - ii. Attrition due to inefficacy of treatment (efficacy)
  - iii. Attrition due to adverse events (tolerability)
- e. Side effects
  - i. Number of participants who experienced one or more side effect

### 4. Primary study conclusions

### 5. Suggested mechanisms to explain relationship risk factors and injury

### 6. Potential confounds

### 7. Items to complete the following checklists:

- a. Risk of Bias (ROB 2.0) for RCTs and Risk of Bias in Non-randomized Studies – of Interventions (ROBINS-I)
- b. Grading of Recommendations Assessment, Development, and Evaluation (GRADE)