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## Effectiveness of physical conditioning practices for female military personnel

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Poster Presentations Friday Lunchtime, Exhibition Hall, October 6, 2023, 12:20 PM - 1:02 PM

**Aim:** to investigate the most effective physical conditioning practices for female military personnel.

**Design:** Systematic review.

**Method:** Following the PRISMA guidelines and protocol registered with OSF, PubMed, Embase, CINAHL, SPORTDiscus, and reference lists of included studies were searched using the themes 'female', 'military' and 'conditioning'. Dedicated inclusion and exclusion criteria were applied. Critical appraisal and data extraction were performed independently by two authors.

**Results:** Seven of 6,317 citations were included in the study. The mean quality score of the studies was considered 'good' (64.4±16.4%). All included studies incorporated strength and aerobic endurance training as a training paradigm; 71% included power specific training; and 43% included occupational specific task training. Improvements in fitness included 50% increase of 1-RM strength, 18.4% increase in VO<sub>2</sub>max and 14.1% decrease in pack march time.

**Conclusion:** The volume of evidence suggests that several training modalities, including strength, power, and aerobic endurance, can optimise both training adaptations and occupational performance for female soldiers. This review provides summary evidence to assist in informing optimal training practices and guide future direction of research.

**Key Practice Points:**

- Physical conditioning for female military personnel appears to be optimised with individualised and periodised physical conditioning programs, incorporating a combination of strength and aerobic endurance training, task specific training, high intensity interval training and a combination of both upper and lower body resistance exercises.
- The parameters of fitness associated with increasing female soldier performance may be used to inform rehabilitation and reconditioning requirements