

Greater Ankle Strength and Anaerobic Capacity in Female Marines Who Completed Military Occupational Specialties School.

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Female Marines can now serve in all military occupational specialties (MOS). A cohort of female Marines participated in ground combat MOS schools as part of the Ground Combat Element Integrated Task Force (GCE ITF), which studied the integration of women into combat arms. It is important to identify characteristics of female Marines who successfully graduated from ground combat MOS schools. **PURPOSE:** To explore physical and physiological differences between female Marines who did or did not successfully complete MOS school. **METHODS:** Female GCE ITF Marines (N=62, 22±3yrs, 163±6cm, 63±7kg) underwent the following assessments prior to ground combat MOS school: anthropometric, strength (average peak torque) with an isokinetic dynamometer (knee, shoulder, trunk) or hand-held dynamometer (ankle), maximal oxygen uptake (VO₂)/ lactate threshold (LT) during an incremental ramped protocol to exhaustion, and anaerobic power (AP)/capacity (AC) during a 30-second cycling protocol. Subjects were classified as graduated (N=45) or did not graduate MOS school, due to failed fitness testing or injury (N=16). Statistical significance was set *a priori* at alpha of 0.05. Between group differences were assessed with an independent t-test or Mann Whitney U test, as appropriate. **RESULTS:** Despite no significant anthropometric differences between groups, significant differences were found in right/left ankle evetor strength, right ankle invertor strength, AC, VO₂ max and VO₂ at LT (all p<0.05 - Table 1). **CONCLUSION:** Higher ankle strength and anaerobic capacity were observed in female ground combat MOS school graduates. These results may help female Marines optimize physical readiness for ground combat.

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