

0.001). Overall, subjects generated 125.5 ± 33.7 W in the unilateral biceps curl (mean of both arms), 144.0 ± 40.6 W in the unilateral triceps extension (mean of both arms), 145.1 ± 34.7 W in bilateral biceps curl, and 168.7 ± 46.5 W in bilateral triceps extension. Males generated more power in each exercise ($p < 0.001$). Holding age and relevant lean mass constant, males generated more power in the dominant biceps curl ($p = 0.030$; 95% CI of $\beta = 2.4, 47.6$) and dominant triceps extension ($p = 0.048$; 95% CI of $\beta = 0.2, 54.8$). Sex did not predict power in non-dominant biceps curl ($p = 0.158$; 95% CI of $\beta = -5.9, 35.3$), non-dominant triceps extension ($p = 0.125$; 95% CI of $\beta = -5.7, 45.6$), bilateral biceps curl ($p = 0.350$; 95% CI of $\beta = -10.2, 28.5$), or bilateral triceps extension ($p = 0.480$; 95% CI of $\beta = -18.9, 39.9$). **CONCLUSION:** Holding age and relevant lean mass constant, males generated more power in dominant arm biceps curl and triceps extension.

3046

Upper Body Power Differs Between Men And Women Holding Lean Mass Constant

Courtney D. Jensen¹, William Waterman², Tiffany Yakowitz³, Joel Yakowitz³, Barton Wells⁴, Adam Kadela⁴, Marie R. Jensen⁵.

¹University of the Pacific, Stockton, CA. ²Proteus Motion, Long Island City, NY. ³DexaFit, Seattle, WA. ⁴DexaFit, Edina, MN. ⁵Golden Bear Physical Therapy, Stockton, CA.

cjensen1@pacific.edu

(No relevant relationships reported)

Differences in muscle performance between biological males and females are abundant in the literature. What remains scarce is evidence of power disparities with lean mass held constant. **PURPOSE:** To examine differences between sexes in muscle power generated in row and chest press exercises while controlling for lean mass. **METHODS:** We measured body composition and muscle power in 68 males and 18 females across the lifespan. Lean mass was assessed in the dominant arm, non-dominant arm, and torso using dual-energy X-ray absorptiometry. Following scans, exercise testing was conducted on a Proteus device. All subjects performed the General Power Test, which includes a 6-repetition set at 12 lbs of multiplanar resistance on unilateral row and chest press (each arm tested separately) and bilateral row and chest press. Linear regression analyses measured the effect of sex on power output holding age and relevant lean mass constant. For bilateral exercises, we used total upper body lean mass. For unilateral exercises, we used lean mass of the torso and involved arm. Analyses were conducted on SPSS version 29.0. Significant ($p < 0.05$) and trending ($p < 0.08$) relationships are reported. **RESULTS:** Subject age was 43.0 ± 9.1 yr and total lean mass was 134.0 ± 23.8 lbs. Segmental lean mass was 61.5 ± 12.2 lbs in the trunk, 8.8 ± 2.4 lbs in the dominant arm, and 8.5 ± 2.4 lbs in the non-dominant arm. In the unilateral row, subjects produced 167.0 ± 31.9 W in the dominant arm and 166.0 ± 31.2 W in the non-dominant arm. In the bilateral row, they produced 153.3 ± 28.6 W. In the unilateral press, subjects produced 167.4 ± 36.6 W in the dominant arm and 163.2 ± 31.2 W in the non-dominant arm. In the bilateral press, they produced 158.2 ± 27.4 W. Regression analyses holding age and relevant lean mass constant found more power was generated by males in the dominant arm row ($p = 0.065$; 95% CI of $\beta = -1.1, 36.0$), dominant arm press ($p = 0.063$; 95% CI of $\beta = -1.1, 42.2$), non-dominant arm press ($p = 0.008$; 95% CI of $\beta = 6.7, 42.1$), and bilateral press ($p = 0.079$; 95% CI of $\beta = -1.7, 31.4$). Sex was insignificant in the non-dominant row ($p = 0.088$; 95% CI of $\beta = -2.3, 33.1$) and bilateral row ($p = 0.136$; 95% CI of $\beta = -4.3, 31.3$). **CONCLUSION:** Controlling for age and lean mass, males generated more upper body power, implicating possible differences in fiber typing, muscle insertions, or sarcoplasmic mass.

3047

Exploring Athletes' Use Of Emerging Technologies To Inform Sports Nutrition Strategies

Jake Bergman¹, Jakarta Voss¹, Gary Slater¹, Gregory Cox², Amy-Lee Bowler¹. ¹University of the Sunshine Coast, Petrie, Australia.

²Bond University, Gold Coast, Australia.

(No relevant relationships reported)

Purpose: To explore athletes' use of, and engagement with emerging technologies including wearables, real-time monitors, artificial intelligence (AI) and dietary intake applications. **Methods:** Online questionnaire distributed to athletes via sports dietitians, high-performance athlete programs and social media. Eligible participants were athletes (≥ 18 years) actively participating or competing in sports under the Participant Classification Framework. Survey responses were analysed using SPSS (v.31), with appropriate statistical tests (Chi-Squared, Fisher's Exact, Mann Whitney U, Kruskal-Wallis) applied to examine associations between athlete characteristics and technology use. **Results:** A total of 44 athlete participants completed the survey, with 75% classified as recreational to sub-elite level. 65.9% of participants reported using wearables, 44.1% used real-time monitors, 36.1% used dietary applications and 32.4% used AI. Significant cost was a common barrier to use of wearables, real-time monitors and dietary applications (60%, 51.8% and 50%, respectively). Notably, most athletes in the study (61.4%) had not consulted previously with a sports dietitian, which may explain lack of use of dietary intake applications. Indeed, those who had engaged with a dietitian were more open to adopting dietary intake applications in the future ($U = 80.000, Z = -3.433, p < 0.001$). **Conclusion:** Athlete engagement with innovative technologies varies, with higher adoption for wearables and lower uptake for dietary applications, AI programs and real-time monitors. Key barriers identified included cost, data complexity, fixation on outputs and concerns around data validity. Dietetic engagement was associated with greater openness to future technology use, emphasizing the importance of practitioner input.

3048

Urinary Incontinence And Depressive Symptoms In Postpartum Individuals: Does Physical Activity Play A Moderating Role?

Jennifer K. Miller. University of Western Ontario, London, ON, Canada. (Sponsor: Michelle F. Mottola, FACSM)

jmill282@uwo.ca

(No relevant relationships reported)

BACKGROUND: Postpartum depression (PPD) and urinary incontinence (UI) are separate conditions that often affect individuals during the postpartum period following childbirth and significantly impact an individual's quality of life. Research has identified an association between depressive symptoms (DS) and UI in the postpartum population. Moderate-intensity physical activity (PA) has been suggested as a potential modifiable risk factor for both PPD and UI. **PURPOSE:** To determine if moderate-intensity PA (measured by the International Physical Activity Questionnaire (IPAQ)) moderated the relationship between UI (measured by the Pelvic Floor Impact Questionnaire (PFIQ-7) and the Australian Pelvic Floor Questionnaire (APFQ)) and depressive symptoms (DS) (measured by the Edinburgh Postnatal Depression Scale (EPDS)) among individuals in the 12-months following childbirth. **METHODS:** A cross-sectional study was used, and participants completed four self-administered online questionnaires through Qualtrics: the IPAQ, PFIQ-7, APFQ, and EPDS. Hierarchical linear regressions were performed to determine if moderate-intensity PA moderated the relationship between DS and UI. **RESULTS:** Overall, 246 participants were included in the final analysis and moderate-intensity PA was not a significant moderator between DS and UI ($\Delta R^2 = .008, F \text{ change} = 1.98, p = .160$); ($\Delta R^2 = .00, F \text{ change} = .02, p = .9$). However, sub-analyses found leisure time PA (LTPA) and leisure time walking were significant moderators of UI (as measured by the APFQ) and DS ($\Delta R^2 = .02, F \text{ change} = 4.31, p = .04$); ($\Delta R^2 = .02, F \text{ change} = 4.64, p = .03$). **CONCLUSION:** Moderate-intensity PA does not moderate the relationship between UI and DS among individuals in the