3230 May 30, 10:30 AM - 10:45 AM
Alterations In Energy Balance From An Exercise Intervention With Ad Libitum Food Intake
Katarina Melzer1, Anne Renouard1, Stefanie Zurbuchen1, Céline Tschopp2, Jan Lehman1, Davide Malatesta3, Nicole Ruch1, Yves Schutz4, Bengt Kayser1, Urs Mäder1, 1Federal Institute of Sport, Macolin, Switzerland. 2Institute of Human Movement Sciences and Sport, Zurich, Switzerland. 3Faculty of Science, Freibourg, Switzerland. 4Faculty of Biology and Medicine, Lausanne, Switzerland.
Email: katarina.melzer@baspo.admin.ch
(No relationships reported)

Better understanding of the effects of exercise alone, without any imposed dietary regimes, as a single tool for body weight regulation is warranted.

PURPOSE: We evaluated the effects of an 8-week increase in activity energy expenditure (AEE) on ad libitum energy intake (EI), body mass and composition, in healthy subjects with baseline physical activity levels (PAL) in line with international recommendations.

METHODS: Forty-six male adults (body mass index (BMI)=19.7-29.3 kg/m²) participated in an intervention group, and 10 (BMI=21.0-28.4 kg/m²) in a control group. Anthropometric, cardiopulmonary fitness, EI, AEE and exercise intensity (in metabolic equivalents (METs)) were recorded at baseline, and during the 1st, 5th and 8th intervention week, and performed (accelerometry) throughout. Body composition (dual energy x-ray absorptiometry) was measured at the beginning and at the end of the study, and resting energy expenditure (indirect calorimetry) after the study.

RESULTS: The intervention group increased PAL from 1.74±0.17 to 1.93±0.20 (p<0.0001), cardiopulmonary fitness from 41.4±6.1 to 45.7±7.6 mlO2.kg⁻¹.min⁻¹ (p=0.001), and decreased body mass (−1.36±1.7 kg, p=0.001) through adipose tissue mass loss (ATM) (−1.61±1.3 kg, p=0.001) in comparison to baseline. The subjects spent 1310±44 min in sedentary to low activities (METs<3), 106±36 min in moderate (MET=3-6) and 24±12 min in vigorous activities (MET>6). The control group did not show any significant changes in activity, body mass nor ATM. EI was unchanged in both groups.

CONCLUSION: The results indicate that in normal and overweight men, increasing PAL to 1.9 while keeping EI ad libitum over an 8-week period produces a prolonged negative energy balance. Replication using a longer (and/or more intense increase in PAL) is needed to see if and at what body composition thresholds of exercise intensity EI may facilitate achievement of the ACSM recommended high doses of physical activity.

Supported by NIH (HL103646)

3231 May 30, 10:45 AM - 11:00 AM
Early Physical Activity Adoption is Associated with 6 Month Engagement in a Weight Loss Intervention
Renee J. Rogers, Meghan McGuire, John M. Jakicic, FACSM. University of Pittsburgh, Pittsburgh, PA. (Sponsor: John M. Jakicic, FACSM)
Email: rjr26@pitt.edu
(No relationships reported)

Physical activity has been identified as a key behavior contributing to weight loss and long-term weight maintenance. Current ACSM recommendations include engagement in 200-300 min/wk of moderate-to-vigorous physical activity (MVPA) for long-term weight maintenance. Strategies for achieving this high volume of activity warrant further investigation.

PURPOSE: To examine the association between early MVPA adoption and 6-month MVPA engagement within a lifestyle intervention for weight loss.

METHODS: 65 adults with Class I obesity (age: 46.2±7.6 years, BMI: 31.7±4.1 kg/m²) participated in a lifestyle intervention for weight loss. Groups were based on moderate (150 min/wk, N=29) and high (250 min/wk, N=36) MVPA prescriptions achieved by week 25. Diet was prescribed at 1200-1800 kcal/day in both groups. Physical activity was objectively measured at baseline and 6 months using a wearable activity monitor. The average minutes of MVPA were computed from self-reported diaries (weeks 2-5) to demonstrate adoption of activity within the first month of the intervention. Partial correlations controlling for baseline MVPA were used to determine the relationship between activity adoption (month 1) and MVPA engagement (month 6).

RESULTS: There was a significant increase in MVPA in both the moderate (86.6±214.7 min/wk, p=.038) and high (226.7±208.7 min/wk, p<.001) prescription groups across the first 6-months of the intervention. Month 1 self-reported adoption of MVPA was associated with objectively measured MVPA engagement at month 6 in high group (r=.44, p=.015), but not the moderate group. Likewise, month 1 self-reported adoption of MVPA was associated with 6-month change in body weight in high group (r=.41, p=.016), but not the moderate group.

CONCLUSIONS: When prescribing high-doses of MVPA within the context of a lifestyle intervention for weight loss, adopting activity in the first month appears to be important in achieving high activity thresholds at 6 months. However, this relationship was not apparent in lower doses of physical activity. Given the significance of relatively high doses of MVPA to improve weight loss success, it appears that it is important to target strategies for promoting early activity adoption. This may facilitate achievement of the ACSM recommended high-dose of physical activity.

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G-27 Clinical Case Slide - Foot and Ankle Issues II
Saturday, May 30, 2015, 9:00 AM - 10:40 AM
Room: 30E

3232 Chair: Giselle Aerni. UConn, Storrs, CT.
(No relationships reported)

3233 Discussant: Karen A. Langone. American Academy of Podiatric Sports Medicine, Southampton, NY.
(No relationships reported)

3234 Discussant: William Mann. Naval Hospital Camp Pendleton, Carlsbad, CA.
(No relationships reported)

3235 May 30, 9:00 AM - 9:20 AM
Ankle Injury - Rugby
Stacey Pappas. University of Rhode Island, Kingston, RI.
(No relationships reported)

HISTORY: A 19 year old male collegiate rugby player with left ankle pain. While playing in his game 5 days earlier, he “rolled it”. He was able to walk on it right away. He has been walking around campus for classes for the last 3 days, but he has not been practicing. He has been icing it and taking ibuprofen. He notes that his swelling decreased yesterday. He has a history of a previous ankle sprain on this ankle.

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