



AMERICAN COLLEGE
of SPORTS MEDICINE[®]
LEADING THE WAY

 [Print this Page for Your Records](#)

[Close Window](#)

Control/Tracking Number: 10-SA-1686-ACSM

Activity: Scientific Abstract

Current Date/Time: 11/11/2010 8:21:30 PM

The Effect of CherryFlex Pro Sport Shot Supplementation in Attenuating Eccentric Exercise-Induced Symptoms of DOMS

Author Block: Gary M. Kastello, Haley A. Bawek, Lisa M. Conrad, Korie M. Jackson, Michelle C. Jeske, MiKayla M. Sanocki, Kenzie L. Schleicher, Kendall R. Straessle. *Winona State University, Winona, MN.* (Sponsor: Mark S. Sothmann, FACSM)
Email: gkastello@winona.edu

Abstract:

Both untrained and trained individuals often experience post-exercise effects such as delayed onset muscle soreness (DOMS), muscle injury and oxidative stress. The antioxidant, anti-inflammatory and analgesic properties of cherries may provide additional protection from oxidative stress and relieve symptoms of DOMS following exercise. **PURPOSE:** To examine the effect of cherry supplementation in attenuating eccentric exercise-induced symptoms of delayed onset muscle soreness. **METHODS:** This study was a placebo controlled, repeated measures double-blind, cross-over design. Nineteen college-aged males (20.32 ± 1.45 yrs) participated in this study. Each subject was randomly assigned to ingest either a cherry supplement (CS) or placebo (P) immediately pre-exercise, and 12, 24, 48, 72, and 96 hours post-exercise. Five sets of ten maximal eccentric bicep contractions at $30^\circ \cdot \text{sec}^{-1}$ with a two minute rest between sets were completed on a Biodex to initially induce muscle damage and inflammation. Data collection was performed immediately prior to exercise and 12, 24, 48, 72, and 96 hours post exercise. Measurements included systolic blood pressure (SBP), punctuated tenderness (PT), visual analog pain scale (VAS), arm girth, arm volume, ROM, serum C-reactive protein (CRP), peak torque, and peak work. Two weeks following the first session, subjects returned to perform a second exercise session with the contralateral limb and ingestion of the opposing treatment. Treatment (TX), time (T), and treatment x time (TX x T) interactions were analyzed using repeated measures ANOVA. **RESULTS:** Significant TX effects were observed for PT at 4 cm (mean \pm SE; CS₄₈ 1.39 ± 0.15 , P₄₈ 1.23 ± 0.16 kg; $p=0.05$) and 12 cm (CS₄₈ 1.10 ± 0.13 , P₄₈ 0.85 ± 0.08 kg; $p=0.01$). Significant TX effects for VAS were also observed between CS and P groups (CS₄₈ 2.94 ± 0.41 , P₄₈ 3.88 ± 0.52 ; $p = 0.01$). A non-significant trend of lower SBP in the CS

group was observed ($CS_{24} 117.50 \pm 2.18$, $P_{24} 124.75 \pm 2.57$; $p = 0.08$, $T \times TX$; $p=0.06$).
Cherry supplementation did not affect arm girth, arm volume, serum CRP, ROM, torque production, and work. **CONCLUSION:** Cherry supplementation immediately preceding, and 12,24,48,72, 96 hrs post strenuous eccentric arm exercise relieves symptoms of pain suggesting an analgesic effect.

:

Author Disclosure Information: **G.M. Kastello:** Contracted Research; Brownwood Acres Foods.

Category (Complete): 608 supplements, drugs and ergogenic aids

Keyword (Complete): Cherry ; Soreness ; Antioxidant

Unlabeled/ Investigational Products (Complete):

: No

Presentation Preference (Complete): Poster Preferred

Area of Interest (Complete):

Area of Interest: Applied Science

Additional Info (Complete):

***Do you authorize ACSM to record your presentation?:** Yes

***Confirmation:** I understand and agree to the above terms regarding AV equipment

Payment (Complete): Your credit card order has been processed on Wednesday 20 October 2010 at 6:17 PM.

Status: Complete