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the New Steel**

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Contents / Contenu

Biosteel high performance sports drink improves exercise and perhaps cognitive performance with a simulated hockey game	<i>Abbott et al.</i>	S1
The effect of rolling massage on the excitability of the corticospinal pathway: a pilot study	<i>Aboodarda et al.</i>	S1
Role of P2 receptors in the mediation of cutaneous vasodilation during intermittent exercise in the heat in young and older males	<i>Akbari et al.</i>	S1
The role of leisure-time physical activity in the association of serum 25-hydroxyvitamin D with surrogate measures of cardiac function: a cross-sectional study	<i>Al-khalidi and Ardern</i>	S1
Lack of xin results in altered metabolic and mitochondrial profile in skeletal muscle	<i>Al-Sajee et al.</i>	S2
Are moderate and vigorous intensity associated with children's self-paced physical activity related to health and fitness outcome?	<i>Allard et al.</i>	S2
Brief intermittent bursts of stair climbing elicit acute exercise responses similar to a cycling model of sprint interval training	<i>Allison et al.</i>	S2
Reliability of simple fitness and physical activity tasks for screening children's physical literacy in recreation, education, allied-health, coaching, and healthcare settings	<i>Alpous et al.</i>	S3
Got milk? The effect of cow's milk consumed after exercise on substrates oxidation and lipid metabolism in sarcopenic older men	<i>Amamou et al.</i>	S3
Advanced pelvic floor training program for prostate cancer surgery: study methodology for a pilot randomized controlled trial	<i>D. Au et al.</i>	S3
Arterial stiffness is reduced with 12 weeks of resistance exercise training in trained young men	<i>J.S. Au et al.</i>	S4
Protein requirement of strength-trained athletes determined using the indicator amino acid oxidation technique is several fold greater than the current DRI	<i>Bandegan et al.</i>	S4
Slower post-exercise phosphocreatine recovery is associated with insulin resistance in obese children	<i>Banks et al.</i>	S4
Post-exertional hypotension is associated with higher resting, but not peak exercise blood pressure in middle-aged endurance athletes	<i>Banks et al.</i>	S5
Exercise reduces prenatal depression in overweight and obese pregnant women: a randomised controlled trial	<i>Barakat and Perales</i>	S5
Glutamate increased glucose uptake in I6 myotubes in a concentration- and time-dependent manner that is mediated by AMPK	<i>Barnes et al.</i>	S5
Effects of habitual high intensity cross-training on measures of resting arterial stiffness	<i>Beck and Burr</i>	S5

Exercise reduces prenatal depression in overweight and obese pregnant women: a randomised controlled trial

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The aim of the study was to examine the effectiveness of a regular physical exercise program on the prevention of depression in overweight and obese pregnant women. A randomised controlled trial was conducted at Hospital Universitario de Fuenlabrada in Madrid. A total of 106 overweight (pre-pregnancy body mass index (BMI) 25.0 to 29.9 kg/m²) and obese (pre-pregnancy BMI \geq 30.0 kg/m²) healthy pregnant women (32.70 \pm 3.90 years), with uncomplicated and singleton gestation were recruited. Fifty-two women were randomized to the exercise group (EG) and 54 to the control group (CG) who only received standard care. The EG participated in a physical conditioning program throughout pregnancy starting at 8-11 weeks until 38-39 weeks gestation. Each session was 55-60-minutes (3 days per week) and was divided into seven parts: after the warm-up (I), the women participated in light resistance activities (II; 55-55% intensity) for 20 minutes. Specific exercises were then performed to increase muscle strength (III) and to improve coordination and balance (IV). The last sessions included pelvic floor muscle training to prevent urinary incontinence (V), stretching (VI) and a discussion (VII) in which the women shared information and comments about perceptions and sensations experienced during the session. The women exercised for

an average of 25.8 \pm 3.3 weeks, and a total of 85 sessions were planned for each participant. Those who did not meet the minimum required attendance of 80% were excluded from the statistical analysis. The main outcome measure was the patients' depression level, assessed by the Centre for Epidemiological Studies Depression scale (CES-D). Maternal weight gain, gestational age, type of delivery, birth weight, Apgar score (1-5 min), head circumference (HC) and pH of the umbilical cord were also measured. Results suggested that a smaller percentage of depressed women were identified in the EG compared to the CG in the third trimester (EG: 17.8% vs. CG: 47.2% $p=0.002$). When stratified by BMI, depression was reduced in the overweight pregnant women participating in the EG (16.2% vs. 47.7% in the CG; $p=0.003$). An adapted exercise program designed for overweight and obese pregnant women may reduce the prevalence of depression in late pregnancy.