Resistance training is a critical component of dance training for pediatric female dancers. In 1976 researchers demonstrated that injuries sustained by female dancers were reduced through the use of strength training exercises.

Using athlete's plate for easy training/weight management with dancers

Date
2016-12-30

Author
Ellis, Stacie

Abstract
Purpose: The purpose of the study was to determine if Athlete's Plate for Easy Training/Weight Management used with dancers for 6 months would improve their body composition (decreasing body fat percentage and increasing lean muscle mass), bone mineral density (BMD), and resting metabolic rate (RMR). The purpose was also to determine if Athlete's Plate for Easy Training Weight Management would decrease fatigue and help dancers achieve regular menstruation status. Method: Thirteen dancers were recruited for the study and received nutrition education and consultations regarding Athlete's Plate. Data were collected using dual energy x-ray absorptiometry (DXA) scans, resting metabolic rate, food frequency charts, 3-day food and physical activity diaries, Body Image Spectrum, and a health questionnaire. The questionnaire included questions on demographics, health history, physical activity and dance activity history, food eating patterns, eating disorder risk assessment, and a fatigue assessment. Results: Decreases in fat mass, percentage of body fat, android fat, and android/gynoid (A/G) ratio, and an increase in total mass, lean mass, fat free mass, and gynoid mass were observed; however, there was no significant difference in body composition between the initial and final assessments. There was a slight decrease in total BMD, and BMD in legs, trunk, spine, and pelvis, and an increase in BMD of arms and ribs; however none of these were significantly different between initial and final assessments. There was no significant difference between predicted basal energy expenditure and resting metabolic rate. There was a significant decrease in fatigue (p-value 0.007, α =0.05 ) between initial and final assessments. The food frequency showed dancers did not achieve the expected Athlete's Plate of half of their plate fruits and vegetables, 1/4 of their plate protein, and 1/6 to 1/4 of their plate complex carbohydrates; however, dietary intakes suggest they were moving in the direction of Athlete's Plate portions and content. Nine of 10 participants were eumenorrheic and 1 of 10 were oligomenorrheic at the initial assessment; there were no changes in their menstrual status at the end of the study. Conclusion: There is potential for using Athlete's Plate to decrease fatigue and improve body composition in dancers; however, further research is needed.
athletes, aside from those related to different biological structures, are essentially no different than those of males, and “well-trained” female athletes are no more prone to injury than their male counterparts [1]. Research has advanced greatly since that time; the evidence continues to mount regarding the health and fitness-related benefits of resistance training for girls and young women, and the concept of training female athletes for injury prevention has received much deserved attention. Weight training uses a variety of specialized equipment to target specific muscle groups and types of movement. Weight training differs from bodybuilding, weightlifting, powerlifting and strongman, which are sports rather than forms of exercise. Weight training, however, is often part of the athlete’s training regimen. Weight training versus strength training. Strength training is an inclusive term for all types of exercise devoted toward increasing muscular strength and size (as opposed to muscular endurance, associated with aerobic exercise, or flexibility, associated with stretching exercise like yoga or pilates, though endurance and flexibility can improve as a byproduct of training).