The Effects of a Six-Week Weight Loss Program on Cardiovascular Measures and Blood Profile

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Common physiological adaptations that occur with regular exercise include decreased resting blood pressure and heart rate as well as an improved blood lipid profile. A local gym recruits individuals to participate in a six-week twenty pound weight loss challenge and provides participants with a structured diet and exercise plan. **PURPOSE:** The purpose of this study was to determine if a primarily weight loss driven program would also result in improved resting cardiovascular measures and blood lipid profiles. **METHODS:** Total cholesterol (TC), high-density lipoprotein (HDL) cholesterol, low-density lipoprotein (LDL) cholesterol, fasting plasma glucose (FPG), triglycerides (TG), resting blood pressure (BP), and resting heart rate (RHR) were assessed before and after the six-week program in thirty four sedentary adults (M_{age}=38.24, SD=9.93). Subjects were required to participate in a vigorous boot camp program a minimum of five days per week for fifty minutes, follow a given and structured diet plan, and drink a gallon of water daily. **RESULTS:** A significant decrease in TC (189.2 ± 6.81 mg/dL vs. 173.4 ± 6.65 mg/dL, P < 0.001) and LDL (115.0 ± 7.25 mg/dL vs. 107.0 ± 6.05 mg/dL, P < 0.05) were seen following the six-week weight loss program. HDL, FPG, and TG levels were not significantly altered by the six-week program neither were RBP nor RHR. **CONCLUSIONS:** These data suggest that a structured six-week weight loss program is effective in reducing TC and LDL. However, the six-week, 30 session weight loss program did not statistically affect resting cardiovascular measures. While this study emphasizes the health-related advantages of incorporating physical activity and a healthy diet into a sedentary lifestyle, more research is required to establish the most beneficial time frame of a successful weight loss program that would improve the cardiovascular system.

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