Both LI and HI groups decreased body weight up to 2.1 and 3.4kg, respectively. TC at POST in the LI group (116.53 ± 5.32 mg/dL) was significantly lower (p < 0.012) than in the control group (139.12 mg/dL). LDL-C at POST in the LI group (50.25 ± 5.24 mg/dL) was significantly lower than that of the HI and control groups (62.83 ± 5.24 mg/dL, p = 0.036 and 67.17 ± 5.24 mg/dL, p = 0.006), respectively. Plasma glucose at POST in both LI (75.32 ± 2.71 mg/dL, p = 0.024) and control groups (80.12 ± 2.71 mg/dL, p = 0.001) was lower than in the HI group (90.77 ± 2.78 mg/dL). CONCLUSION: Regardless of exercise intensity, both low and high intensity aerobic exercise training for 12 weeks improved body weight and body composition in obese Hispanic women. However, the low-intensity exercise provided a more favorable effect than the high-intensity exercise on the plasma glucose and lipid profiles of obese Hispanic women.