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EXERCISE  
PHYSIOLOGY

EFFECT OF CARDIAC REHABILITATION IN DEPRESSED VERSUS  
NONDEPRESSED INDIVIDUALS ON FITNESS, DEPRESSION, AND PERCEIVED  
EXERTION (131 pp.)

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Affect sensory feedback from increases in heart rate, blood pressure, workload (METs) and ventilation during volitional peak treadmill exercise stress test (GXT) peak are known to affect perceived exertion. These responses may differ between depressed (DEP) and non-depressed (NON) cardiac patients. The purpose of this study was to determine if exercise training would positively affect perceived exertion (RPE), functional capacity (FC), and depressive symptoms among cardiac patients enrolled in a phase-II cardiac rehabilitation (CR) program.

The participants (DEP-N=10; *BDI-13 or above* and NON-N =8; *BDI-6 or below*) who took both an entry and exit treadmill exercise stress test and underwent 25 sessions of the CR exercise training program were assessed. Depressive symptoms were measured pre- and post-intervention using the Beck Depression Inventory (BDI) and structured diagnostic interview. Multivariate analyses were conducted to compare the DEP and NON groups on measures of METs, RPE, and BDI obtained from GXT peak and BDI screenings. The results revealed that after CR exercise training program, the mean RPE scores (Borg scale) for both DEP and NON were significantly lower at the 50% intensity level of exercise stress test ( $p < 0.005$ ). The mean maximum MET scores significantly

improved for both DEP and NON groups ( $p < 0.005$ ). The DEP group had significant reduction in mean BDI scores ( $p < 0.005$ ).

The results from this study suggest that after CR exercise training both depressed and non-depressed cardiac patients will have increased FC, lower RPE, and reduced depressive symptoms. There is an association of improved FC to lower RPE.