

Effect of Exercise on Blood Pressure in Athletes and Untrained Individuals

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Abstract

Background: Physical exercise is known to increase heart rate and thus also causes proportionate changes in Blood Pressure. In the present study we tried to evaluate the changes occurring in Systolic Blood Pressure and Diastolic Blood Pressure in Trained and untrained individuals for a given amount of exercise. **Methods:** Male Trained Athletes were selected based on the criteria of 3-4 years of regular aerobic training and they were compared with untrained normal individuals. Exercise performance test was done as per Mc Ardle Step test this is performed with a stool with a height of 16.25 inches the test was done for duration of 5 minutes at the rate of 24 cycles per minute. **Results:** The mean SBP, DBP and Heart Rate in untrained individuals before exercise was 121.44 ± 2.04 , 79.04 ± 2.16 and 76.64 ± 1.35 after 5 minutes of aerobic exercise was 157.04 mmHg, 82.4 mmHg and 132.72 per min. The value of parameters recorded similarly in Trained Athletes before exercise were SBP, DBP and HR were 124.64 ± 2.21 , 81.68 ± 1.60 and 60.4 ± 2.0 and after exercise the values were 155.92 ± 4.35 , 84.01 ± 1.60 and 112.96 ± 2.16 per minute after exercise. Statistically significant differences were observed in SBP and Heart Rate before and after Exercise. **Conclusions:** The cardiovascular response in trained individuals was different from untrained individuals when subjected to exercise. The Trained Athletes were able to increase their SBP with relatively lower heart rates as compared to untrained individuals.