

## Perceived Intensity Level During Treadmill Exercise

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The American College of Sports Medicine (ACSM) classifies different exercise intensities through ranges of heart rate, oxygen consumption, and the metabolic needs of the activity. Currently, there are no studies examining if individuals perceive the exercise intensity level as it is defined by these physiological ranges. **PURPOSE:** The purpose of this study was to determine if individuals perceive aerobic exercise intensities as they are defined by the ACSM. **METHODS:** Data are Mean  $\pm$  SD. 11 total subjects (males, n=4; females, n=7) with age ( $24.2 \pm 7.1$  years), BMI ( $25.8 \pm 4.0 \text{ kg}\cdot\text{m}^{-2}$ ), percent body fat ( $28.3 \pm 9.9 \%$ ) and  $\text{VO}_2\text{max}$  ( $40.7 \pm 8.5 \text{ mL}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ ) participated in this study. Subjects completed a graded exercise test on a treadmill to maximal exertion while rating the intensity at the end of each stage of the test. Subjects used a Perceived Intensity Level (PIL) Scale to rate the intensity. The scale included: 1-Very Light, 2-Light, 3-Moderate, 4-Vigorous, 5-Near Maximal, and 6-Maximal. Subjects were not given the definition of each intensity level as defined by the ACSM, but were given standard instructions on how to use the scale during the test. Actual Intensity Level (AIL) was determined using  $\% \text{VO}_2\text{R}$  attained at the end of each stage. The PIL rated at the end of each stage was compared against the AIL. **RESULTS:** A contingency table assessed agreement between PIL and AIL. Cohen's Kappa (K) showed the strength of the agreement between PIL and AIL was substantial ( $K = 0.645$ ). **CONCLUSION:** Current physical activity recommendations state that adults should participate in moderate and vigorous intensity activities for several health-related benefits. These results suggest individuals may be able to appropriately self-regulate aerobic exercise intensity without knowing specific intensity definitions.