

The Impact of a 30 vs. 60 Second Passive Recovery Period on Vertical Jump Performance

Andy M. Bosak, Austin P. Smith, Christopher B. Carver, Matthew L. Sokoloski, Jonathan M. Houck, Jared R. Feister, and Robert T. Sanders, Liberty University, Lynchburg, VA.

The vertical jump (VJ) test is commonly utilized to determine how high a person can jump and what their resulting power will be. Thus, it is important that the VJ test is administered correctly for a person to jump as high as possible. The standard time between subsequent jumps is usually 30 seconds (secs) with a completion of 3-6 jumps. But, if an individual is not fully recovered before their next jump, it is possible that jump may be lower vs. the first or earlier jumps. If a longer recovery period is granted between each jump, the individual may potentially jump as high as or even higher than their previous attempts. However, to the best of the researchers' knowledge, the impact of a 30 vs. 60 secs passive recovery period on VJ performance has not been assessed. **PURPOSE:** To investigate the potential differences between a 30 vs. 60 secs passive recovery period on VJ performance in no less than averagely fit college-age males. **METHODS:** After having descriptive data (ie. Ht., Wt., BF%, age) recorded, 31 averagely fit college-age males had their reach height measured and then participated in an 8 min dynamic warm-up. Subjects were then given a four minute passive recovery (PR) period after the warmup and then completed four familiarization jumps (ie. trials) using a VJ measurement device. After another 4 min PR period, subjects completed two series of jumps (ie. four trials apiece) in a counterbalanced order with either 30 (THIR) or 60 (SIXT) secs of PR between each jump. The THIR and SIXT jump series were separated by 4 min of PR. Excluding the first jump/trial for each series, the highest jump for THIR vs SIXT were compared using Paired-Samples t-Tests with significant differences occurring at $p \leq 0.05$. **RESULTS:** No significant differences ($p = 0.44$) occurred between SIXT (70.01 ± 10.36 cm) and THIR (69.97 ± 9.86 cm). **CONCLUSION:** The current results suggest that 30 or 60 secs of passive recovery between jumps is optimal recovery for peak performance to occur during the vertical jump test using averagely fit college-age males. However, further research may be necessary to assess the impact of 30 vs. 60 sec passive recovery on vertical jump performance using averagely fit college-age females. Also, future studies may need to exam the effects of a shorter or longer recovery period vs 30 or 60 seconds on vertical jump performance in male and female athletes.