## The Effects of a Validated Adult Golf-Specific Exercise Program on Teenage Golfers

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Teenage golfers are still growing with immature body. Selecting an appropriate golfspecific exercise for improving their physical characteristics may not only help for improving their performance, but also can protect them from injury. **PURPOSE:** To examine the effects of a validated adult golf-specific exercise program on teenage golfers in physical characteristics and golf performance. **METHODS**: Thirteen golfers (age:  $14.8 \pm 1.7$  years, golf handicap:  $11.4 \pm 6.1$ ) performed an 8 week golf-specific exercise program designed for improving physical characteristics in the average adult golfers, as observed to be different than scratch golfers, collected from more than 150 comprehensive golf tests in a stratified population grouped by skill level. Assessments for the pre and post-training testing included hip, torso, and shoulder strength, flexibility, balance, torso rotational movements, and golf performance. Shoulder and hip strength were measured using a hand-held dynamometer attached to an adjustable device. Isometric strength of trunk flexion and extension were measured in sitting position using a dynamometer. Flexibility was assessed using a goniometer. Balance was evaluated using a force plate with a balance pad on the top. Torso rotation during the swing was assessed using a 3D electromagnetic system. Golf performance was measured using a laser launch monitor. Paired t-tests were performed to compare differences in all results. **RESULTS**: Hip flexibility improved significantly in 7 of the 14 measurements taken. Left hip abduction and bilateral hip flexion and extension strength, trunk flexion and extension strength, and shoulder internal rotation strength were significantly improved. Bilateral one leg standing balance were significantly improved with eyes open and closed in 8 of the 12 variables analyzed. Average ball speed increased from  $143.4 \pm 13.2$  mph to  $148.5 \pm 12.4$  (p = .0036) with average club head speed improving from  $102.0 \pm 9.6$  mph to  $105.7 \pm 7.9$  (p = .0041). No significant difference was found in torso rotation during the golf swing. CONCLUSION: Teenage golfers can also benefit from the adult exercise program used in this study without experiencing too much stress that usually happens during weight training. This exercise program may not need modification for teenage golfers.