



Graph 1 Comparison between young and older swimmers for backstroke turn kinematics.

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Isotonic Exercises That Predict Club Head Speed Among Competitive Golfers

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(No relevant relationships reported)

Golf conditioning programs commonly emphasize trunk extensors, hip extensors, and the abdominals. Support for these muscle groups is limited.

PURPOSE: To assess the relationship between 3D isotonic exercises and club head speed (CHS) in competitive golfers.

METHODS: We measured CHS in 13 competitive golfers (10 men, 3 women) using Trackman Golf. We also tested each subject's physical performance on 17 different exercises (5 repetitions per exercise) using a Proteus device. Maximum power achieved in each repetition was calculated; we exported the mean of all 5 repetitions for each exercise. We calculated mean peak acceleration in the same way. Simple linear regressions tested the relationships between power and acceleration for each exercise with CHS as the criterion variable.

RESULTS: Subjects were 35.0 ± 15.6 yr and had a CHS of 106.4 ± 10.4 mph. Proteus outcomes associated with CHS were: dominant horizontal press power (R²=0.390; p=0.030; 95% CI of β: 0.016, 0.249), non-dominant horizontal press power (R²=0.397; p=0.028; 95% CI of β: 0.020, 0.279) and acceleration (R²=0.553; p=0.006; 95% CI of β: 0.672, 2.995), dominant horizontal row power (R²=0.456; p=0.016; 95% CI of β: 0.043, 0.332) and acceleration (R²=0.346; p=0.044; 95% CI of β: 0.047, 2.865), non-dominant horizontal row power (R²=0.430; p=0.021; 95% CI of β: 0.032, 0.301), dominant lateral bound acceleration (R²=0.421; p=0.042; 95% CI of β: 0.182, 8.233), dominant shot-put power (R²=0.569; p=0.012; 95% CI of β: 0.033, 0.196), non-dominant shot-put power (R²=0.454; p=0.033; 95% CI of β: 0.017, 0.304), dominant straight-arm trunk rotation power (R²=0.614; p=0.004; 95% CI of β: 0.051, 0.201) and acceleration (R²=0.541; p=0.010; 95% CI of β: 0.553, 3.072), non-dominant straight-arm trunk rotation power (R²=0.598; p=0.005; 95% CI of β: 0.046, 0.194) and acceleration (R²=0.442; p=0.026; 95% CI of β: 0.292, 3.511), dominant plyometric straight-arm trunk rotation power (R²=0.569; p=0.012; 95% CI of β: 0.044, 0.256), and non-dominant plyometric straight-arm trunk rotation power (R²=0.452; p=0.033; 95% CI of β: 0.013, 0.235) and acceleration (R²=0.414; p=0.045; 95% CI of β: 0.050, 3.205).

CONCLUSIONS: Straight-arm trunk rotation was the strongest predictor of CHS. Strong associations were also found with dominant shot-put and non-dominant horizontal press.

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Evaluating The Current Classification Points Addition On Performance In Female Wheelchair Rugby Players

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