

| Study | Sample | Proprioceptive measures | Fatigue protocol | Mean ± SD pre | Mean ± SD post | Percentage (%) change (↑, ↓) |
|-------------------------------|--|-------------------------|--|---|---|---|
| Voight et al ¹² | 80 healthy subjects (37 M, 47 F) | ARP, PRP | 180°/sec, 50% decrease of peak torque for three consecutive repetitions. | 3.95°± 1.18° 13.7°± 3.38° | 6.45°± 1.8° 45.9°± 10.98° | ARP:↑ 63.29 % * PRP: ↑ 235.03 % * |
| Carpenter et al ¹³ | 20 healthy subjects (11 M, 9 F) | TTDPM | 50% decrease of peak torque for three consecutive repetitions | 0.91° ± 0.235° | 1.59°± 0.59° | ↑ 74.72% * |
| Sternier et al ²⁸ | 20 recreationally active subjects (all M) | ARP, PRP, TTDPM | 50% decrease of peak torque for three consecutive repetitions | 4.58°± 2.55° 5.52°± 3.67° 1.73 s ± 0.59 s | 3.16°± 2.50° 5.48°± 3.67° 2.69 s ± 1.73 s | ARP: ↓ 31 % PRP: ↓ 0.72 % TTDPM: ↑ 55.49 % |
| Myers et al ²⁵ | 32 healthy subjects (16 M, 16 F) | ARP | 180°/sec, 50% decrease of peak torque for three consecutive repetitions | 4.72°± 2.43° | 5.58°± 2.23° | ↑ 18.22 % * |
| Lee et al ²⁶ | 11 healthy subjects (all M) | ARP, PRP | 180°/sec, 50% decrease of peak torque for three consecutive repetitions | 2.57°± 1.02° NR | 4.96°± 1.73° NR | ARP: ↑ 92.99 % * Note: Only for external rotation PRP: No significant differences |
| Kablan et al ²⁹ | 40 volleyball players (20 elite, 20 beginners) | ARP | 60°/sec, 50% decrease of peak torque for three consecutive repetitions | 3.8°± 2.39° 4.5°± 3.88° | 6.1°± 3.83° 8.1°± 5.72° | ↑ 60.52 % * Note: Elite players at 20° of internal rotation target angle ↑ 80 % * Note: Beginner players at 10° of internal rotation target angle. |
| Yun Chang et al ³⁰ | 13 healthy subjects (8 F, 5 M) | PRP | 90°/sec, 50% decrease of peak torque for three consecutive repetitions | 2.57°± 1.67° | 6.39°± 2.90° | ↑ 148.63 % * |
| Lida et al ²⁷ | 15 healthy subjects (all M) | ARP, PRP | 60% decrease of peak torque for three consecutive repetitions | 2.68° 2.32° | 4.19° 4.05° | ↑ 56.34 % * Note: Angular error of internal rotation ↑ 74.56 % Note: Angular error of external rotation |
| Spargoli ³¹ | 22 healthy subjects (14 M, 8 F) | ARP | 180°/second. The threshold for shoulder muscular fatigue was determined as the maximum peak torque of MVC minus 30%. | 7.4°± 4.29° | 7.2°± 4.99° | ↓ 2.70 % |
| Guo et al ³² | 20 healthy subjects (10 M, 10 F) | ARP | A repetitive exercise was performed using dumbbells loaded at roughly 80% of their maximal force. Fatigue was considered typical when the recorded maximum force reduced to 50% below the initial maximum force. | 5.7°± 4.4° | 4.6°± 4° | ↓ 19.29% |
| Coskun et al ³³ | 17 M healthy subjects | FRP | 120°/sec, 50% decrease of peak torque for three consecutive repetitions | 2.51 ± 1.96 Nm 1.36 ± 1.09 Nm | 3.23 ± 2.17 Nm 1.27 ± 1.05 Nm | ↑ 28.68% * Note: FRP for internal rotation ↓ 6.61% Note: FRP for external rotation |

M: males, F: females, SD: standard deviation, ARP: active reposition, PRP: passive reposition, FRP: force reproduction, TTDPM: threshold to detection of passive motion, MVC: maximal voluntary contraction, °: degrees, Nm: Newton-meters, ↑: increase, ↓: decrease, *: p-value <0.05.