Eccentric Flywheel Training: Accelerating ACL Recovery

Stojanovic et al. (2023)



ACL Injuries

ACLs are a high occurrence injury, particularly in sports that utilize actions such as deceleration, jumping, and change of direction, **basketball, rugby, handball or football such examples.**



Program

Both the flywheel resistance training (FRT) and traditional resistance training (TRT) groups were given 6 exercises with the focus specific to that groups assigned training method, whether that was traditional or flywheel. Over 6 weeks the sets and reps were increased, whilst still sticking with the same exercises and intensities.



Outcomes

Greater improvement (p < 0.05) in athletic outcomes as shown in the table were observed for the FRT group.

| Variable | Flywheel (%) | Traditional (%) |
|----------------------|--------------|-----------------|
| Isometric Semi-Squat | 28.1 | 15.1 |
| СМЈ | 12.9 | 6.7 |
| Single Leg CMJ | 23.8 | 13.7 |
| Нор | 23.9 | 8.1 |
| Triple Hop | 14.3 | 5.3 |

Take Home Message

Stojanovic et al (2023) concluded that,

"It seems that flywheel strength training can be recommended in late-stage ACL recovery for professional team sport athletes **in order to regain recommended performance outcome levels faster."**