



**THE REHAB ROOM**

***Pumping Iron – the benefits of strength training in the endurance athlete.***

Many triathletes would shudder at the thought of some time away from running to be replaced bench pressing, or time off the bike to get under the squat rack, yet there is a growing body of evidence to suggest that strength training can be beneficial in the endurance athlete. Not only can it improve performance but it can also prevent injury and for any athlete at any level this is a win win.

Many endurance athletes may fear that weight training may add “bulk” to their frames making them slower. The reality is that with the amount of aerobic training being done in the endurance athlete outside of the gym, any significant muscle bulk is unlikely to occur and the two cancel each other out essentially. Also under the guidance of a good coach or trainer the programme can be biased to focus more on strength adaptations which can be monitored to coincide with no increases in mass.

The majority of the gains in strength training in the endurance athlete come from neural drive adaptations (brain to muscle signal). With weight training, the athlete can train themselves to recruit more motor units and hence generate more muscular force more efficiently. This can improve performance as a stronger athlete will perform better than a weaker one as they are more efficient with better economy. Over a half or full tri this can have notable implications as the stronger athlete is able to maintain aerobic output for a longer period. Also it can have a positive effect in shorter term efforts where increased exertion is needed such as a sprint finish as strength training focuses on the muscle fibres needed for these efforts that are not trained with standard endurance work. In other words correct strength training will give you more bang for your buck.

Other benefits include stronger bones and better supported joints. This may lead to a reduction in injury risk as tissues are better adapted to take load. Also when done correctly it can correct muscle imbalances and lead to greater biomechanical efficiency.

Periodisation is key with weight training and can be planned by your coach or trainer. This refers to the various progressions and varying of a training programme throughout a season. Weight programmes will change reflective of what time of the season it is, what the goals are and also how experienced the athlete is in a gym.

But what about my bike/swim/run?

Your normal training is obviously still the focus of where your training should be at. Strength work only probably needs to be done 2 times a week in an endurance athlete. This may be split into an upper and lower body day. Compound movement exercises such as squats, deadlifts, bench press and pull ups etc should be the focus of an endurance athlete strength programme, yet some more focussed exercises for correcting muscle imbalance may be indicated in individuals that need it. A session should only last around 45 minutes. Some rehab work and foam rolling or stretching, that is specific to your needs should also be added for further benefits. Where possible, leg strength work should not be done on a running day, to avoid fatigue and overtraining.



Strength training should always start under the guidance of a suitably qualified coach or trainer, and it may take some time to work your way up to a heavier load/lower rep type programme required for pure strength gains. Lifting form and technique are very important as is recovery and monitoring of training load and fatigue.

Happy racing!

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