METRIFIT FACTSHEET: TRAINING LOADS

Many athletes have the talent and the desire to reach the top level, but in order to be successful it is essential that they prepare properly and this is why the whole concept of training load is important. Training load is seen as an essential component of athletic performance which is the process whereby structured training improves the speed, strength and endurance of an athlete and in turn enhances their performance. The key in this regard is implementing the appropriate training load for the particular athlete as too little load will provide no training effect, while too much load can lead to burn-out and overuse injuries.

TIPS ON ACHIEVING THE MOST FROM TRAINING LOAD

Like many things in life one of the key aspects of training is to having a clear plan in advance in order to achieve your goals, and making sure you stick to it. Here are some tips to ensure you get the maximum benefit from your training

- ✓ Sudden increase in training load should be avoided and instead sessions should gradually become more intense
- ✓ Pushing yourself beyond the limit to a point where you collapse or suffer muscle failure is of no benefit
- ✓ Give yourself ample time to recover between sessions to get the full benefit of training
- ✓ Alternate your training to keep if fresh and also to avoid putting too much stress on one particular part of your body
- ✓ Monitor the intensity of your training load to ensure you are not doing either too little or too much

SYMPTOMS OF OVER-TRAINING

Experience tells us that it is easier for a coach to identify when an athlete is not doing enough training to improve their performance, but the biggest challenge is ensuring that training is not excessive. Getting the balance right is essential as overtraining can have a serious impact on an athlete's chances of reaching their potential, while it in can also have long-term health implications. As a result is it important for a coach or athlete to be aware of the signs of over-training and to take corrective measures immediately.

Some of the symptoms include:

Persistent Fatigue	Increased levels of tiredness, lethargy and listlessness, along with signs of poor concentration and poor tolerance of activity
Persistent Muscle Soreness / Injuries:	Recurring muscle injury is an indication for overtraining in an athlete and due to the lack of recovery time, the body is unable to deal with the constant pressures exerted upon it.
Constant Irritability	Symptoms are not just physical as overtraining can also lead to an athlete becoming increasingly irritable
Loss of Appetite:	Overtraining can result in a loss of appetite and lack of adequate nutrition can have knock-on effects in terms of performance and general health

GETTNG IT JUST RIGHT: MONITORING IS KEY

"The training loads that we, as coaches, can give to an athlete have to adhere to the Goldilocks principle: training loads have to be high enough to elicit adaptation, but not so high they result in overtraining"

George Beckham (georgebeckham.com)

Ensuring you get your training load "just right" can be a delicate balancing act but the key to success is consistent and accurate monitoring of the athlete. This will ensure that signs of over-training will be identified early which allows the opportunity to take the appropriate corrective measures and ensures an athlete can compete at their optimum level.

The benefits of monitoring are numerous and among the advantages include the fact that it can:

- ✓ Explain in scientific terms the reasons for change in performance
- ✓ Assist in planning sessions
- ✓ Reduce risk of injury
- ✓ Help determine if an athlete is ready for competition
- ✓ Strengthen the coach/athlete relationship
- ✓ Increase athlete's confidence and sense of ownership
- ✓ Help reduce training monotony
- ✓ Assist in preventing over-training and illness
- ✓ Help ensure that athletes returning from injury are not progressed too quickly

SESSION RPE / TRAINING LOAD

One method that has been widely used is session-RPE (session-rating of perceived exertion) which is the subjective monitoring of the load placed on an athlete. It is calculated by multiplying the session intensity by the duration to provide a measure of load in arbitrary units. Session RPE has been recognised as an excellent method of calculating training load. This method requires the athlete to provide responses after undertaking exercise along with details of training duration. It is often measured on a 0-10 scale with an athlete giving an evaluation on their training exercise ranging from 1 (very, very easy), to 7 (very hard) up to 10 (maximal).

TRAIN HARDER AND SMARTER: THE ACUTE:CHRONIC WORKLOAD RATIO

In The training-injury prevention paradox: should athletes be training smarter and harder? Tim J Gabbett addresses the age-old question of the relationship between training and injury prevention. The findings of this extensive study point to a definite benefit in monitoring an athlete's routine. He concludes that while there is a link between extensive training loads and injury, such problems may arise as a result of the incorrect training regime, rather than being with the actual training itself. Gabbett begins by raising the belief held in some sections that higher injury rates are as a result of a higher training load, but highlights the evidence that training also helps protect against injury. He points out that a sustained period of training before an initial injury can reduce the risk of subsequent injury and chronic workloads can decrease injury risk. Also, he adds that athletes need to train hard to build up the physical attributes required to reduce injury risk and that under-training can lead to an increased injury risk.

"If training load is an important determinant of injury, it must be accurately measured up to twice daily and over periods of weeks and months (a season). This paper outlines ways of monitoring training load ('internal' and 'external' loads) and suggests capturing both recent ('acute') training loads and more medium-term ('chronic') training loads to best capture the player's training burden. I describe the critical variable – acute:chronic workload ratio – as a best practice predictor of training-related injuries. This provides the foundation for interventions to reduce players risk, and thus, time-loss injuries"

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