

OVER TRAINING IN SPORTS: TREATMENT AND PREVENTION

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ABSTRACT

An athlete not only to tackle the specific demands of training and competitions of his/her respective sports/games, but he/her has to take many other responsibilities like professional, social & family responsibility. In other words an athlete during his entire professional career has to bear the training and competition load with various responsibilities. Therefore before start the real training program, the coach, trainer and other's should assess the need and goals of an athlete and evaluate the current level of performance then prepare the individual complete training schedule specifically. During the training it is very important that the athlete, coach, trainer and others must work as a team with accepted standard of care because this standard of care will determine the future performance of an athlete.

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INTRODUCTION

Training principles are incorporated in to athletic training programs to maximize physical performance. Both endurance and strength training are incremental increase in training s to stimulate physiologic stress and subsequent adaptation. A well designed training program includes overtraining within^ exercise tolerance level a long with adequate recovery periods that optimize training improvement. This particular approach called privatization of training aids in the timing of an athlete's peat performance. Over occurs when excessive exercise stress transcends the body's ability to adopt and leads to reductions in athletic performance. Homeostasis is not restored, and thus biochemical, physiologic and immunological systems become altered.

WHAT IS OVER-TRAINING

Training beyond the physiological and psychological capacities of the body to recover during the rest periods. Over-training is associated with rundown and burn-out, and commonly causes physical and Mental Fatigue resulting a decrease in the quality of performance. The athlete typically complains of feeling tired and having sleeping.

THE OVER-TRAINING SYNDROMES

The over-training syndrome consists of various symptoms in an athlete who has engaged in training program that has exceeded the body's physiologic and Psychological limitations. A combination of sign and symptoms of over-training which typically causes the sufferer to feel mentally fatigued without being physically fatigued and causes performance to deteriorate. The suffers basal metabolic rate is elevated, there is usually a loss of body weight associated with a negative nitrogen balance, and the rate of return exercise pulse-rate to resting pulse-rate is delayed. The overtraining syndrome is through to involve changes in both the neuron and endocrine systems, particularly the hypothalamus. The common symptoms associated with over-training are increasing resting heart rate, weight loss, poor healing, insomnia, loss of appetite, frequents upper respiratory infection, sore throat, heavy feeling in legs, decreased performance, irritability, restlessness, reduced concentration, depression, emotional liability increased evening fluid intake, excessive sweating, poor sleep, decreased libido decreased competitive drive etc.

DIFFERENCE BETWEEN OVER-TRAINING AND FATIGUE

Fatigue is the anticipated response to an over-training stimulus. The functional capacity of the athlete is- only temporarily impaired, and the recovery process ensures the renewal of energy sources and may even super compensate to above baseline levels. As opposed to exercise related fatigue. Which may last from several days up to two weeks and carries a favorable prognosis, over-training may take several weeks to month for complete recovery. Further impairment of physical performance and alterations of mood state characterize the over-training syndrome.

PSYCHOLOGICAL COMPONENTS

Disturbance, doubt, criticism, depression, lack of motivation, lack of confidence are key Psychological component of over-training syndromes, and may be associated with increases in training volume and /or intensity. Symptoms released to decreased performance include Fatigue, difficulty in concentrating, depression and irritability. An athlete's railing of perceived exertion is increased at given workload. The profile of mood states is frequently used

to measure alterations in psycho-pathological parameters. This scale can be used to monitor an athlete's mood during the training.

HOW DOES OVER-TRAINING SYNDROME OCCUR

Over-training syndrome results from an imbalance between training and recovery. Limited rest and training beyond an athlete's ability to recover and adapt lead to an over-trained state. A combination of endogenous and exogenous factors induce over training. Each athlete has an individual and available recovery potential and exercise capacity, as well as a multitude of non training stress factors. In addition, any incidents of over-training are secondary to training errors and / or rapid increases in training intensity.

WHICH ATHLETES AT GREATEST RISK OF OVER-TRAINING

Endurance athletics are at higher risk of over-training because of their prolonged period of exercise training. Young athletes are also at risk, because often they are pushed too hard or too fast by overzealous coaches and parents. Adult runner often competes in too many road races per season and do not allow enough rest between competitions. Competitive swimmers also have high training volumes and commonly train several times per day. Multi sports athletes (e.g. tri athletes, pentathletes, decathletes) frequently struggle to balance appropriate rest achieved simultaneously training for multiple sports. Female athlete, particularly those in sports with extra emphasis placed on performance and physical appearance may over train in pursuit of thinness.

MEANS THAT HELP TO DETECTION OF OVER-TRAINING

Decreased performance is often the first sign of an over trained athlete. Although there are no widely accepted diagnostic criteria for the over-training syndrome, performance decrements associated with other recognized indicators of over-training may be sufficient to make the diagnosis. Additional markers for over-training include an increased resting heart rate, weight loss. Frequent illness, Sleep disturbance and increased thirst and evening fluid intake.

HOW CAN OVER-TRAINING BE PREVENTED

Prevention is paramount because of the risk of injury, illness, premature retirement and sustained decrements in performance. Unfortunately, no universally accepted laboratory test can be used to monitor over training. Periodization of training separates the various phases of training such as endurance work, speed work, skill training and tapering into limited periods for maximal performance. The principle of periodization allows athletes adequate rest between training sessions and can prevent breakdown during periods of hard training. Coaches and trainers need to be aware of the unique differences in each athlete's tolerance to stress and appropriately balance and individualize training sessions. Proper attention to specific training, practice can prevent training errors, which are the most common cause of running injuries. High intensity training without rest and sudden increases in intensity must be avoided. Daily mood monitoring reduces over training. Training should be appropriately decreased when deteriorating moods are detected and increased when moods improve.

TREATMENT FOR OVER-TRAINING ATHLETE

There is no specific treatment for over-training syndrome. Thus, the focus must be on early recognition and appropriate prevention. A reduction in training volume and for intensity may be adequate for recovery. Athletes need reassurance and proper counseling

about the importance of rest and relaxation techniques. Massage and hydrotherapy are often used as regeneration strategies. An open communication lie with coaching personal is crucial, and field test for physical conditioning help coaches to guide gradual increments in training. Attention to proper nutrition and fluid supplementation is useful. Cross training and reduction is a competition also aid in the recovery process.

CONCLUSION

An athlete not only to tackle the specific demands of training and competitions of his/her respective sports/games, but he/her has to take many other responsibilities like professional, social & family responsibility. In other words an athletic during his entire professional career has to bear the training and competition load with various responsibilities. Therefore before start the real training program, the coach, trainer and other's should assess the need and goals of an athlete and evaluate the current level of performance then prepare the individual complete training schedule specifically. During the training it is very important that the athlete, coach, trainer and others must work as a team with accepted standard of care because this standard of care will determine the future performance of an athlete.

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