

## **RECOGNISING AND AVOIDING OVERTRAINING**

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Training induces both physiological adaptations that improve performance and fatigue that decreases performance. The purpose of recovery or peaking (taper) periods is to eliminate the fatigue and allow the full benefits of the adaptations that should have occurred during overload phases to emerge at the right time.

Stress encompasses all aspects of training, competition and non-training factors. Stress can have both positive and negative effects depending on the state of the athlete and recovery process. Increased exercise stress is manifested in physiological and biochemical changes and is often in conjunction with psychological alterations, all of which result from an imbalance in homeostasis. However, the quantity of training stimuli that result in either performance enhancement or a chronic fatigue state is presently unknown.

It is usual in training regimes of endurance athletes the integration of high training volumes combined with limited recovery periods. This may disrupt the fragile balance in the interaction between fatigue and adaptation, and the accumulation of exercise stress may exceed an athlete's finite capacity of coping with the demands put on him.

Because it is difficult to ascertain the volume of training that will result in overreaching or overtraining, it would be important to identify markers that distinguish between acute training-related fatigue and overreaching. However, a "golden standard" to diagnose overreaching or early detection of overtraining does not exist. The combination of several criteria as maximal lactate concentration, OBLA or other submaximal markers, and RPE require intraindividual comparative data to be meaningful. On the other hand, fatigue and state moods inquiries seem to be very helpful in checking how the swimmers are coping with training-induced stress.

Keeping a training log is an easy way to track your progress and watch for symptoms of overtraining. Indicators that are easy and inexpensive to obtain, are exactly the ones that may prove most suitable for inclusion in a training diary based system for monitoring adaptation to training.