

INTERPRETATION AND SIGNIFICANCE OF ANAEROBIC THRESHOLD IN BALL GAMES

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Fatigue is a normal result of exertion, although its severity and symptoms vary. Exhaustion increases the likelihood of movement coordination abnormalities, as well as the rate of technical execution errors. As a result of impaired concentration and decreased physical performance, the frequency of tactical errors increases. Technical and tactical failures by players destroy collaboration and harmony, causing team play to disintegrate. The inevitable result of this is inaccuracy in both defense and offense, which, combined with an increase in the number of baskets received and a decrease in scoring opportunities, leads to loss. Incorrect movement execution and overloading significantly raise the risk of injury. The team is made up of individuals. In their case, the development of endurance can be an important part of prevention, which means two things: on one hand, improved endurance and on the other hand, rapid regeneration.

Since endurance is the basic ability of all types of sport specific endurance, the development of the aerobic system behind it, i.e. the ability to absorb oxygen, is of particular importance, the foundations of which must be created between the ages of 14-21, in youth sport. The aerobic system is responsible for regenerating the phosphate system (anaerobic alactacid) and the glycolytic system (anaerobic lactic acid), both of which play essential roles in the athletic demand profile. From this perspective, the speed of the lactate threshold (LT1/VT1), also known as the aerobic extended zone, is crucial since the question is how much effort and how quickly the player can reach this regeneration spectrum between intensive training phases.

This is the key to regeneration during the game, and it may significantly impact the delay of fatigue during acyclic loads. Long term competition specific endurance performance is determined by both the glycolytic and aerobic systems, i.e. lactate production (VL_{MAX}) and lactate processing (VO₂MAX). The most common performance diagnostic test, the

lactate step test can help to discover endurance indicators and define individual intensity target zones, which provide essential information for optimizing skill development by examining the metabolic background.

This also provides the values of the metabolism-based target zones for personalized setting of the performance monitoring systems, because the heart rate ranges are actually heart frequency projections of metabolic units, not cardiology units.

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