

STRENGTH TRAINING FOR BASKETBALL, ACCORDING TO GAME MODEL

Dr. FRANCESCO CUZZOLIN, PhD
Head of Performance - Olimpia Milano

During his plenary lecture, Francesco Cuzzolin discussed the transition from scientific knowledge to practical application, with a specific focus on strength training for basketball players.

He emphasized the importance of injury prevention strategies and the necessity of appropriate strength training, highlighting the analysis of game models and strength training zones. These concepts are not exclusive to basketball but can also be applied to other sports such as football, volleyball, and rugby. In basketball, strength, and stability are generated using the entire body, making it essential to shift our approach from analytical to sport-oriented. This new approach prioritizes patterns over basic movements and emphasizes actions that integrate movements toward specific objectives. Training should target the function of specific strength to particular movements rather than merely focusing on structural development. Whether general, specific, or special, strength training plays a crucial role in enhancing basketball performance, it is essential to adopt a rational approach to address players' needs during the competitive season. Traditionally, strength and conditioning coaches and basketball trainers have often emphasized cardiovascular conditioning, often pushing players to run long distances. However, research indicates that excessively increasing aerobic power can be hazardous, particularly in intermittent sports like basketball. The most effective training methodology is one that aligns closely with basketball performance models and integrates sport-specific skills, force production, and rate of force development. Basketball movements are dynamic, non-linear, and unpredictable, requiring an impulsive approach for success. Therefore, utilizing such a model can yield better outcomes than conventional strength training methods. Resistance training for basketball should integrate traditional resistance exercises with basketball movements, focusing on factors like load, speed, and coordination. Combining explosive movements with traditional exercises

can be challenging due to the need to manage inertia and accelerate effectively. Alternative methods such as using light weights, emphasizing acceleration, and enhancing coordination can contribute to overall performance improvement. In contrast to traditional resistance training, which typically involves movements with consistent resistance, often influenced by gravity (e.g., bodyweight or free weights), Cuzzolin advocates for injury-reducing strategies rather than simply preventing injuries. This approach involves a holistic consideration of various factors, acknowledging that relying solely on research and studies may not always yield optimal results. Athletes are encouraged to learn how to teach their bodies to achieve optimal efficiency when performing complex exercises. Following the plenary session, attendees had the opportunity to observe basketball-specific strengthening exercises and sport-specific basketball movements.

Keywords: scientific knowledge, strength training, practical application