METHODOLOGY OF DEVELOPING ENDURANCE IN 14–16-YEAR-OLD BASKETBALL PLAYERS

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https://doi.org/10.5281/zenodo.20356514

Abstract. *This article discusses the scientific and methodological foundations of developing endurance in 14–16-year-old basketball players. The importance of endurance in basketball, as well as the methods and means of its development, are analyzed. In addition, the effectiveness of special exercises in improving the physical and functional capabilities of young athletes is highlighted.*

Keywords: *basketball, endurance, young basketball players, physical training, special exercises, sports training, functional capabilities.*

Introduction

Today, the development of physical qualities, especially endurance, is considered one of the most important tasks in the training system of young athletes. Basketball is a sport that requires high speed, agility, and continuous movement throughout the game; therefore, it demands a high level of endurance from players. The age of 14–16 is an important stage in the development of the functional systems of the human body, and the proper development of endurance during this period plays a significant role in achieving future sports success.

During a basketball game, players perform repeated running, jumping, quick directional changes, and technical-tactical actions. In order to perform these activities effectively, athletes need well-developed general and special endurance. Endurance enables players to maintain their working capacity during the game, resist fatigue, and execute technical movements accurately.

In recent years, special attention has been paid to the use of modern pedagogical and innovative methods in training young basketball players. The use of interval training, repetitive exercises, game-based methods, and special running drills contributes effectively to the development of endurance.

The purpose of this article is to analyze the methodology of developing endurance in 14–16-year-old basketball players and determine the most effective training methods and exercises.

Main Part

Endurance is considered one of the most important physical qualities in modern basketball. High-level basketball competitions require players to perform continuous technical and tactical actions under intense physical load. Therefore, the development of endurance directly influences sports performance and game effectiveness.

For 14–16-year-old basketball players, endurance training is especially important because this age period is characterized by rapid growth and functional development of the organism.

Properly organized endurance training improves the cardiovascular system, respiratory efficiency, muscular activity, and overall physical preparedness of athletes.

Research in sports science shows that basketball players with well-developed endurance demonstrate:

- higher movement intensity during games;
- improved recovery after physical load;
- better concentration and decision-making abilities;
- greater resistance to fatigue;

- more stable technical performance during competitions.

Methods of Developing Endurance in Young Basketball Players

The following methods are widely used in basketball training practice:

1. Continuous Training Method

This method includes long-duration running and moderate-intensity exercises without interruption. It develops aerobic endurance and improves the overall functional capacity of the body.

2. Interval Training Method

This method alternates high-intensity exercises with short rest intervals. Interval training is highly effective for basketball because the game itself consists of repeated high-speed movements and short recovery periods.

Example:

- 30 seconds sprint running;
- 20 seconds rest;
- repeated 8–10 times.

3. Circuit Training Method

Circuit training combines several exercises performed consecutively at different stations. It develops endurance, strength, speed, and coordination simultaneously.

4. Game Method

Using basketball-based games and competitive drills increases athletes' motivation and improves special endurance in conditions similar to real competitions.

Physiological Importance of Endurance

Endurance training positively affects several physiological systems of the body:

- strengthens the cardiovascular system;
- improves oxygen delivery to muscles;
- increases lung capacity;
- accelerates recovery processes;
- enhances energy metabolism.

As a result, basketball players can maintain a high level of activity throughout the entire game without a significant decrease in performance.

Psychological Aspects of Endurance

Endurance is closely connected not only with physical preparedness but also with psychological stability. Young athletes with good endurance usually show:

- greater self-confidence;
- emotional stability;
- stronger motivation;
- better concentration during games.

Psychological endurance helps basketball players perform effectively even under stressful competition conditions.

Practical Training Exercises for Endurance Development

The following exercises are recommended for 14–16-year-old basketball players:

1. Shuttle running (10×10 m);
2. Fast-break running drills;
3. Repeated jumping exercises;
4. Sprint and shooting combinations;

5. Dribbling through obstacles;
6. Small-sided basketball games;
7. Relay races with basketball elements.

These exercises improve both general and basketball-specific endurance.

Additional Conclusion

Thus, endurance development is an essential component of training young basketball players. Scientifically organized endurance exercises contribute to improving physical fitness, technical skills, psychological stability, and competitive performance. The use of modern training methods and innovative pedagogical technologies increases the effectiveness of basketball training and supports the comprehensive development of athletes.

Endurance is the ability of an athlete to maintain performance for a long period of time and resist fatigue. In basketball, endurance is divided into general endurance and special endurance. General endurance reflects the overall functional capabilities of the body, while special endurance ensures the effective execution of basketball-specific movements over an extended period.

When developing endurance in 14–16-year-old basketball players, it is important to apply age-appropriate training loads. Since the bodies of young athletes are still developing, training intensity and volume should be increased gradually.

The following training methods are considered effective for developing endurance:

- long-distance running exercises;
- interval running exercises;
- relay races and movement games;
- jumping exercises;
- basketball-specific drills;
- small-sided games.

Interval training is an effective method for improving the cardiovascular and respiratory systems of basketball players. In this method, high-intensity exercises are alternated with short rest periods.

Movement games and relay exercises not only improve endurance but also increase athletes' interest and motivation during training sessions. In particular, game-based exercises have a positive effect on the psychological state of young players.

To develop special endurance in basketball players, it is recommended to combine technical and tactical movements with running exercises. For example, performing shooting exercises immediately after sprinting or executing defensive actions under fatigue conditions helps athletes maintain effectiveness during games.

Research results show that regular endurance-focused training improves heart rate regulation, respiratory system activity, and overall work capacity in young basketball players.

Conclusion

In conclusion, the development of endurance in 14–16-year-old basketball players is one of the key factors in improving sports performance. Endurance allows athletes to maintain a high level of working capacity throughout the game, perform technical and tactical movements accurately, and resist fatigue effectively.

The use of age-appropriate and scientifically based training methods ensures high effectiveness. In particular, interval exercises, movement games, and basketball-specific drills are important tools for developing endurance.

Coaches should organize training loads according to the individual characteristics and functional capabilities of athletes. This approach contributes to the healthy development of young basketball players and helps them achieve high sports results.

Recommendations

1. Interval training exercises should be widely used in training young basketball players.
2. More movement games and relay exercises should be included to improve endurance.
3. Training loads should correspond to athletes' age and functional capabilities.
4. Basketball-specific endurance drills should be included in training programs.
5. The functional condition of young athletes should be monitored regularly.

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