

Determining Age-Appropriate Physical Loads in Sambo Training Sessions

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Abstract: *This article addresses the issue of determining physical loads for young athletes during SAMBO training sessions. It analyzes the importance of planning training and selecting appropriate load levels based on age-specific physiological and psychological characteristics. The study provides recommendations for forming an effective training system that considers factors such as session duration, load intensity, recovery, and rest regimes for different age groups. This work serves as a practical guide for coaches, sports school instructors, and professionals in the field of physical education.*

Keywords: *Sambo, young athletes, physical load, training process, physiological characteristics, psychological development, sports methodology, individual approach, recovery, sports pedagogy.*

Introduction

Sambo wrestling is a combat sport that demands comprehensive physical preparation, strong willpower, quick thinking, and a high level of coordination. It is recognized as one of the key factors contributing to the physical development of children and adolescents. This sport not only develops muscular strength but also enhances endurance, balance, flexibility, psychological stability, and the ability to make quick decisions. For young athletes in particular, determining age-appropriate physical loads during training sessions is of great importance for ensuring health and optimal development.

If the physical load is too heavy or excessive for a young athlete's body, it can lead to rapid fatigue, muscle and tendon strain, and even increase the risk of injuries. Moreover, excessive workloads can diminish a child's positive attitude toward sports, reduce motivation, cause psychological distress, and ultimately lead to quitting sports activities altogether. Inappropriate physical loads can also negatively impact children's growth processes, potentially resulting in musculoskeletal disorders or cardiovascular issues.

Therefore, it is essential for coaches and sports specialists to develop a scientifically grounded, individually tailored system of physical loading for each age group. This system should be adapted to each child's age, physical fitness level, health status, and psychological condition. Proper planning of physical loads not only ensures healthy development but also contributes to achieving successful results in sports.

Main Part

Sambo wrestling is a complex and dynamic sport that requires athletes to possess physical strength, agility, endurance, coordination, and quick thinking. When working with young athletes, it is especially important to consider their level of physical and psychological development. Therefore, determining age-appropriate physical loads during Sambo training plays a crucial role in maintaining athletes' health, reducing the risk of injury, and enhancing their performance in the sport.

Considering Age Characteristics:

At each developmental stage, a child's body matures differently. For example, children aged 7–10 may not yet have fully developed muscle mass, but they typically show a strong interest in movement and activity. Training sessions for this age group should primarily include play-based elements and exercises that promote motor skills development. For adolescents aged 11–14, it is more appropriate to gradually develop strength and endurance. From the age of 15 onward, it is recommended that physical loads be assigned based on the athlete's individual capabilities.

Criteria for Determining Physical Loads:

1. **Age and Level of Biological Development** – Training should correspond not only to the child's age but also to their overall health, physiological development, and the condition of the cardiovascular system.
2. **Load Intensity and Volume** – The intensity of exercises should be increased gradually, starting with simpler techniques and progressing to more complex ones.
3. **Duration of Training** – For younger athletes, 30–45 minutes of training is sufficient, while older athletes may train for 60–90 minutes.
4. **Level of Preparation** – Since each athlete has a unique level of physical and technical preparedness, loads must be assigned individually.
5. **Rest and Recovery Time** – After high-intensity training sessions, adequate time should be allocated for full recovery.

The Main Physical Requirements of Sambo Wrestling Are as Follows:

1. Strength (Muscular Strength)

During a Sambo match, athletes perform many strength-demanding actions such as lifting, throwing, holding, and escaping from opponents. Particularly in “parterre” (ground fighting) situations, the strength of the arms, shoulders, back, and legs plays a crucial role. Strength enables athletes to execute technical movements effectively.

2. Endurance

During combat, an athlete is subjected to intense physical exertion for several minutes. Therefore, both general and specific endurance—particularly cardiovascular, respiratory, and muscular endurance—are essential for a Sambo wrestler's success. Endurance training allows athletes to maintain strength even in long-lasting matches.

3. Speed

A high level of reaction speed is required to respond quickly to the opponent's moves and to execute attack and defense actions immediately. Speed is important not only in movement but also in decision-making. This enables the athlete to act before the opponent does.

4. Agility (Speed and Variability of Movement)

During a match, the athlete must quickly change direction, anticipate the opponent's actions, and adapt to them. Agility training helps the athlete learn to perform sequences of movements swiftly and efficiently.

5. Flexibility

Sambo includes a variety of movements such as gripping, twisting, lowering, and shifting from left to right. Therefore, joint mobility and muscle flexibility must be well developed. Flexibility reduces the risk of injury and assists in performing techniques correctly.

6. Coordination

To perform various technical actions smoothly and accurately, coordination between body parts, balance maintenance, and spatial awareness are essential. Coordination training ensures the athlete can harmonize movements and execute technical elements perfectly.

7. Balance

Maintaining and quickly restoring balance is vital in Sambo wrestling. Any loss of balance can result in defeat. Therefore, balance must be continuously developed through specific exercises.

In Sambo Training, the Following Key Factors Must Be Considered When Determining Age-Appropriate Physical Loads.

These aspects play a critical role in ensuring the healthy, safe, and effective development of young athletes:

1. Age Characteristics

Each age period corresponds to specific stages of physiological and psychological development:

- ✓ **Ages 7–10:** Play-based, fun, and light physical loads.
- ✓ **Ages 11–13:** Teaching technical fundamentals and gradually increasing endurance.
- ✓ **Ages 14–16:** Introducing more complex techniques and strength exercises.
- ✓ **Ages 17–18:** High-intensity, competition-oriented training.

2. Child's Physical Preparedness

- ✓ Every athlete has different physical capabilities.
- ✓ Applying a high workload to a child with low general preparedness can be dangerous.
- ✓ Training should be planned based on initial medical assessments and physical performance indicators.

3. Training Duration and Intensity

- ✓ Training duration must match the age group (e.g., 30–40 minutes for ages 7–10).
- ✓ Physical loads should increase gradually; sudden heavy loads should be avoided.
- ✓ Include breaks between exercises to allow recovery.

4. Types and Variety of Loads

- ✓ Training should include a balance of static (stationary) and dynamic (movement-based) exercises.
- ✓ Physical attributes (strength, speed, endurance) should be developed alternately.
- ✓ Incorporating play-based elements and partner/group exercises is recommended.

5. Psychological Preparedness

- ✓ Excessive loads can reduce a child's interest in sports.
- ✓ Motivation, a positive environment, and appropriate psychological demands are crucial.
- ✓ Each child's individual emotional state must be considered.

6. Recovery and Rest

- ✓ Sufficient time should be allocated for full recovery after each load.
- ✓ At least 1–2 rest days per week are recommended.

- ✓ Sleep, nutrition, and a healthy lifestyle are also important factors.

7. Injury Prevention

- ✓ Warm-up exercises before training and cool-down exercises at the end are essential.
- ✓ Proper technique and appropriate exercise selection reduce the risk of injury.

8. Individual Approach

- ✓ Each athlete should be evaluated individually based on their health, physiological indicators, and learning speed.
- ✓ Accordingly, load types, exercise selection, and training regimes should be personalized.

Determining age-appropriate physical loads in Sambo training is a crucial factor in ensuring effective athlete preparation, maintaining their health, and reducing the risk of injury. Coaches must develop training programs based on a thorough analysis of each athlete's age, health, fitness level, and psychological characteristics, applying a scientifically grounded approach.

Conclusion

Determining age-appropriate physical loads in Sambo training serves as a fundamental basis for the physical development, health, and athletic performance of young athletes. Since the bodies of young athletes are not yet fully developed, any physical load applied must correspond to their biological and psychological capabilities. Each age stage comes with specific physiological, psychological, and emotional characteristics, and taking these factors into account during training plays a key role in unlocking an athlete's full individual potential. Sambo is a technically and physically demanding combat sport that requires precision in movement, strength, agility, endurance, coordination, and tactical thinking. Therefore, in the training process, it is essential to follow the principle of progressive development according to the athlete's age. This principle involves starting with simpler exercises and gradually increasing the intensity and complexity of the workouts. Properly assigned training loads not only enhance an athlete's technical capabilities but also contribute to the stable and safe long-term development of their sports career, helping prevent overexertion and injuries. Otherwise, young athletes may face orthopedic issues, mental fatigue, or a loss of interest in the sport due to excessive loading.

Moreover, an effective training process should be based on the following key criteria: individualized approach, appropriate training duration, strict adherence to rest and recovery schedules, regular monitoring, and health control. It is especially important to develop a training system that considers each athlete's health, fitness level, and rehabilitation needs. This approach not only boosts sporting achievements but also supports overall physical development, social engagement, and commitment to a healthy lifestyle.

In conclusion, physical load planning in Sambo training for youth must be scientifically grounded, focused on progressive development, and tailored to individual abilities. Coaches, sports school specialists, and healthcare professionals must work collaboratively to design optimal loading models for each athlete, ensuring healthy and effective participation in sports for children and adolescents.

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