

### THE ORIENTATION OF TRAINING LOADS OF SHOCK MICROCYCLES OF QUALIFIED ATHLETES WHO SPECIALIZE IN COMBINED EVENTS

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#### Abstract:

This article highlights the issue of orientation training loads shock microcycles in training all-around athletes. The proper rotation of stress with relaxation create favorable conditions that stimulate adaptive responses in the body of all-around athletes. Also presented the qualified all-around athletes' program of 7-day shock microcycle in a specially-preparatory mesocycle and 5-day shock microcycle of pre-competitive mesocycle.

#### Keywords:

combined events, qualified athlete, shock microcycle, training, supervision, tools, programming, direction, training sessions, load, volume.

**СПРЯМОВАНІСТЬ ТРЕНУВАЛЬНИХ НАВАНТАЖЕНЬ В УДАРНИХ МІКРОЦИКЛАХ КВАЛІФІКОВАНИХ СПОРТСМЕНІВ, ЯКІ СПЕЦІАЛІЗУЮТЬСЯ У БАГАТОБОРСТВІ** **Адамчук Вадим** У даній статті висвітлені питання щодо спрямованості тренувальних навантажень ударних мікроциклів у підготовці легкоатлетів-багатоборців. Правильне чергування таких навантажень з відпочинком створюватиме сприятливі передумови, які стимулюватимуть адаптаційні реакції в організмі багатоборців. Також представлено програму кваліфікованих багатоборців 7-денного ударного мікроциклу у спеціально-підготовчому мезоциклі та 5-денний ударний мікроцикл передзмагального мезоциклу.

багатоборство, кваліфікований спортсмен, ударний мікроцикл, підготовка, контроль, засоби, програмування, спрямованість, тренувальне заняття, навантаження, обсяг.

**НАПРАВЛЕННОСТЬ ТРЕНИРОВОЧНЫХ НАГРУЗОК В УДАРНЫХ МИКРОЦИКЛАХ КВАЛИФИЦИРОВАННЫХ СПОРТСМЕНОВ, СПЕЦИАЛИЗИРУЮЩИХСЯ В МНОГОБОРЬЕ** **Адамчук Вадим** В данной статье освещены вопросы относительно направленности тренировочных нагрузок ударных микроциклов в подготовке легкоатлетов-многоборцев. Правильное чередование таких нагрузок с отдыхом создавать благоприятные предпосылки, которые будут стимулировать адаптационные реакции в организме многоборцев. Также представлена программа кваліфікованих багатоборців 7-денного ударного мікроцикла у спеціально-підготовчому мезоциклі та 5-денний ударний мікроцикл передзмагального мезоцикла.

многоборье, кваліфікованный спортсмен, ударный микроцикл, подготовка, контроль, средства, программирование, направленность, тренировочное занятие, нагрузка, объем.

#### Formulation of the problem. Analysis of recent research and publications.

In the training system of athletes, including athletes of combined events, experts distinguish structural elements such as the long-standing training, annual training (training periods and macrocycles) mezocycles, microcycles and just training session [8,9,10]. There are no major and minor elements among these structural formations. Each of them, regardless of duration, solve specific tasks and has a corresponding meaning.

One of the trends of modern training system of combined events athletes, which is implemented in the construction of shock microcycles, is the desire to maximize the usage of both quantitative and qualitative characteristics of the training process. Targeting the maximum possible volume characteristics and intensity of training, the large number of studies with large and heavy loads, typical for most training systems of the strongest combined events athletes in the 1980-1990-ies, now replaced by more effective for all components of the training process [3]. The reason for this is awareness of the fact that the three-dimensional characteristics are effective only to the point at which the quality of training process does not suffer and there is no risk of fatigue, injury, occupational diseases.

According to the experts [8,12,13] microcycles duration can range from 3-4 to 10-14 days. The most common seven-day microcycles that match the duration of the calendar week are in good agreement with the general Diet of all-around athletes. Microcycles of another duration are usually planned in competitive period, due to the need for regime change activities, the formation of a specific disability rate due to specific conditions responsible for future events.

Various literature in which the technique of building drums microcycles in qualified athletes' training, it is recommended to plan 2-3 training sessions with large loads [6,9,10]. In determining

## II. НАУКОВИЙ НАПРЯМ

the amount of such studies tend to orient the length of the flow of reduction processes. In planning sessions with large loads in shock microcycle of qualified all-around athletes, authors rightly orient the need to account for fatigue, which is caused by the occupation and duration of flow reduction processes after them.

**Purpose and Organization of study:** based on an analysis of the literature, working experience of combined events trainers, personal experience to determine the orientation training loads shock microcycles in training skilled all-around athletes that will improve results in the competition. The study was conducted on the basis of Vinnytsia SDYUSSHOR "Colossus" in athletics in the period from 1 December 2016 to 25 February 2017. Qualification of all-around athletes Candidate of Master sports and Master of sport of Ukraine.

**Research methods.** The paper used the following methods: analysis of the literature, teacher observations, surveys, training of timekeeping, pulsometry (Polar RS800CX), methods of mathematical statistics.

**Results and discussion.** Microcycle is a few training sessions, aimed at addressing certain specific objectives of the training process [9]. Qualified all-around athletes use usually different thrust load in a weekly cycle training process. Proper rotation of stress with relaxation creates favorable conditions that stimulate adaptive responses in the body. The structure of all-around athlete's microcycle should be taken into account with the individual characteristics of a particular athlete and conditions of the training sessions.

Percussion (developing) microcycles are characterized by high total workload and high stress. Their main task - stimulation of the adaptive processes in the organism of all-around athletes and resolve technical and tactical, physical, psychological and integrated training [2]. Because of the shock microcycles constitute the main content of the preparatory period. Shock microcycles are widely used in specially-preparatory mesocycle (Table. 1).

*Table 1*

**The content and orientation of training sessions of qualified all-around athletes of 7-day shock microcycle specially-preparatory mesocycle**

Days of the week	The orientation of training sessions	The content of training sessions
<b>Monday</b>	Technical, speed, speed-strength	Warm-up: (2000 m), special exercises, stretching; sprint running 2h30m, 2h60m; running hurdles - 60-70m - 3.4 g; high jump with 5-7 running steps - 10-15r; shot put - 12-16r.
<b>Tuesday</b>	Technical, speed-strength, strength	Warm-up: (2000 m); special exercises, stretching; pole vault after bar 10-12 running steps - 10-12 p; javelin; Power and speed-strength exercises in the gym.
<b>Wednesday</b>	Technical, speed-strength, speed, special endurance	Warm up: (2000 m), special exercises, stretching; running with low start - 6-8r .; long jump of 12 running steps - 10-15r and full takeoff - 4.5 g; 200m run - 2p after 1 min. rest.
<b>Thursday</b>		Sauna, pool.
<b>Friday</b>	Technical, speed-strength	Warm-up: (2000 m), special exercises, stretching; running hurdles - 50 meters - 5.8 g; high jump of 7 running steps - 8.10 g and complete springy steps - 10-12 p; shot put - 15-18 g.
<b>Saturday</b>	Technical, speed-strength, special endurance, strength	Warm-up: (2000 m), special exercises, stretching; pole vault with 10-12 running steps - 10-15r; discus - 20-22 g, running 300m - 4p (80-90%); Power and speed-strength exercises in the gym.
<b>Sunday</b>		Recreation

## II. НАУКОВИЙ НАПРЯМ

This model of 7-day shock microcycle specially-preparatory mesocycle allows all-around athletes to create versatile and powerful incentive for the occurrence of adaptive responses in activities with large loads of different orientation [2,5]. Also provides conditions for their flowing and full recovery.

The analysis of the literature, analyzing the diaries of the training process of highly qualified all-around athletes, personal experience, we determined that in pre-competitive mesocycle highly qualified all-around athletes apply the standard model of 5-day shock microcycle (Fig. 1) [1,8,9]. The first day - training with average load, the second and fifth days - training with large loads of different orientation, the fourth day is dedicated to rest and restorative procedures (renewable) [14], the third - a significant burden. Training is planned once a day. Basic exercises in each of the sessions are focused on specific training, usually two or three kinds decathlon.

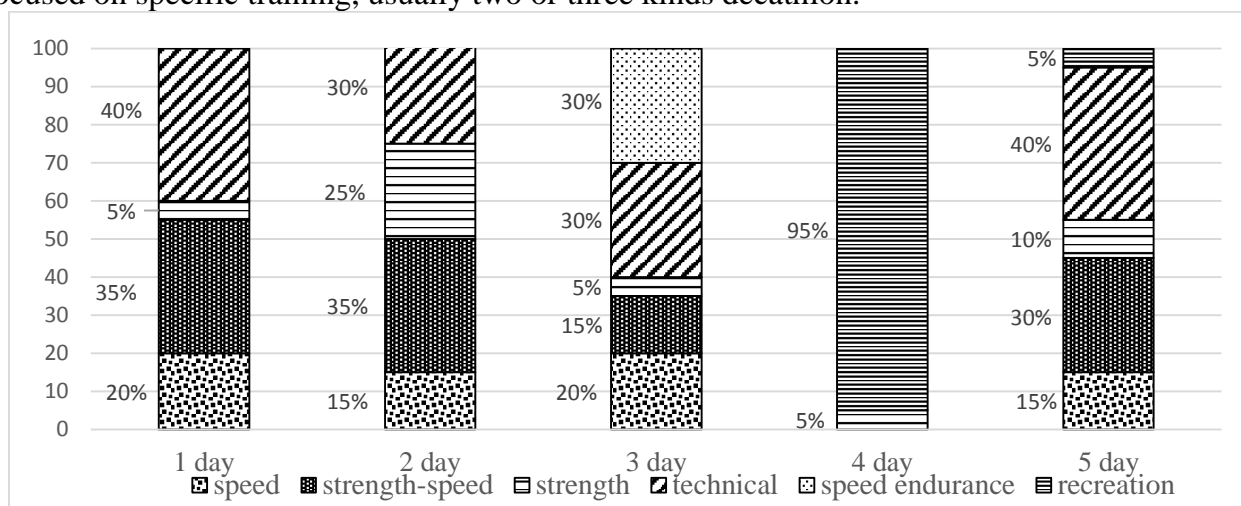


Fig. 1. The orientation sessions of 5-day shock microcycle of pre-competitive mesocycle of qualified athletes who specialize in athletics-around

In the process of teaching observation of all-around athletes training sessions [4,7] we determined the duration of training, the number of calories expended, coefficient of magnitude and intensity of loading 5-day shock microcycle (Tabl. 2).

Table 2

### Parameters of training work of the 5-day shock microcycle of pre-competitive mesocycle of qualified athletes who specialize in combined events

Training days	1 <sup>st</sup> Day	2 <sup>nd</sup> Day	3 <sup>rd</sup> Day	4 <sup>th</sup> Day (Rest)	5 <sup>th</sup> Day
<b>The focus of the training sessions</b>	Technical, speed, speed-strength	Technical, speed-strength, speed, power	Technical, speed-strength, speed endurance	Renewable	Technical, speed-power
<b>The load</b>	Average	Great	Great	-	Average
<b>Training duration, hours</b>	2,05,49	2,18,43	2,00,13	-	1,45,18
<b>Number of calories, kcal</b>	1001	1134	1450	-	958
<b>LF, points</b>	699,4	785	835	-	635
<b>IF<sub>T.L.</sub>, mark·min<sup>-1</sup></b>	5,9	6,9	7,5	-	5,8

\* LF - the load factor

\* IF<sub>T.L.</sub>, mark·min<sup>-1</sup> - intensity factor

## II. НАУКОВИЙ НАПРЯМ

By analyzing the structure and orientation of shock microcycles in competitive period, high qualified all-around athletes do not plan more than five training sessions with a small total volume of work, and exceptionally high quality-rounded training exercises. Some of them are used mainly at improving certain technical points, increasing power and speed-power characteristics, others are focused on the work of sprinter character, in the third speed-power operation is combined with a series, aimed at developing special endurance and increase anaerobic capacity [ 15,16].

Also, by the organization of the weekly cycle and the determination of its content one should also focus on the condition of the athlete, the individual characteristics of a particular athlete and conditions of the training sessions must be taken into account.

**Conclusions.** The analysis of scientific literature, a survey of leading coaches, analyze of own sports training experience allowed to enhance view of a rational construction of training process in the men's all-around athletics, namely shock microcycle. It was also found that in pre-competitive mesocycle the highly qualified all-around athletes apply the standard model of 5-day shock microcycle, of which the first day - training with an average load, the second and fifth days - training with large loads of different orientation, the fourth day is dedicated to rest and recovery rocycle with load from different directions in the preparatory period.

Observance of the major challenges, the usage of effective tools and the orientation of training loads in sports training shock microcycle of qualified all-around athletes will contribute to the successful preparation and better results in competitions.

**The prospect of further research** is to determine the dynamics and direction of the training load during training and competition mesocycles within the macrocycle yearprocedures (renewable) and third - a significant burden. And the use of 7-day shock mic.

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## II. НАУКОВИЙ НАПРЯМ

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