PLANNING AND REFEREEING ACTIVITIES IN THE SELECTED SPORT (Part 1)

Topic 3. Cyclicity, Periods and Stages of Annual Training Microcycles, mesocycles and macrocycles; the volume and intensity of exercises allocated to different types of preparation.

Teaching time: 2 hours.

Small cycles, or microcycles, are one of the most important structural components of the sports training process. Their duration is normally from 4 to 14 days, although seven-day weekly microcycles are used most frequently in practice. The content and structure of a microcycle are formed according to the main pedagogical and functional tasks assigned to it.

Microcycles are named according to their purpose. Common types include introductory (pulling) microcycles, which prepare an athlete for subsequent workloads; shock microcycles, which concentrate high-intensity workloads; approach microcycles, which adapt the athlete to competition conditions; competition microcycles, which directly cover competitive activity; and recovery microcycles, which are intended to restore the athlete's organism.

Within a microcycle, the volume and intensity of training loads are distributed around planned peaks. Depending on the maximum points of load intensity, microcycles may have one, two or three peaks. Such distribution makes it possible to use the athlete's functional capacities effectively and to prevent excessive fatigue.

The placement of loads across training days is based on the important physiological principle of supercompensation. After training, recovery restores not only the resources that were lost but may temporarily raise the body's functional capacity above its previous level. Applying the next workload at an appropriate stage of this process can support stable improvement in sports performance. At the same time, the direction and volume of loads must remain subordinate to the developmental objectives of the training session.

Post-training recovery means and pre-training stimulation methods help optimize adaptation to workloads. They accelerate recovery, reduce fatigue and maintain the functional readiness required for subsequent sessions. Therefore, scientific planning of loads within microcycles, their distribution according to supercompensation, and rational management of recovery can support continuous development of athletes' physical, functional and psychological preparation.

Content and Organization of Microcycles

A microcycle is a set of training sessions conducted consecutively over several days and directed toward a particular task. It is the smallest, but highly important, structural unit of sports training and is used to manage the athlete's current functional state and implement planned workloads.

A microcycle may last from approximately 3–4 to 10–14 days. The most common form is the seven-day weekly microcycle because it corresponds to the calendar week and the athlete's normal daily rhythm. Different types are selected according to the athlete's level of preparation, the training stage and the pre-competition situation.

An introductory microcycle is characterized by a relatively low total training load. The workload is light at the beginning and is gradually increased, preparing the athlete's organism for more intensive training. Such microcycles are used mainly during the preparatory period and often form the initial stage of a mesocycle.

A shock microcycle is aimed at solving major technical-tactical, physical, mental and integrated preparation tasks. It is characterized by relatively high volume and intensity. Loads may be increased step by step or reduced in a staircase pattern so that the athlete's functional capacities are mobilized effectively. Shock microcycles are used mainly during preparatory and competition periods.

A wave-like microcycle develops gradual adaptation to training loads and improves tolerance to accumulated fatigue. Its workload follows a planned sequence of increases and supports functional stability before subsequent high workloads.

An approach microcycle is organized immediately before competition. It maximizes adaptation to competition conditions, repeats competition-specific actions, optimizes workloads and prepares the athlete for complete recovery after competition.

A competition microcycle is organized strictly according to the official competition program, regulations and conditions. Its duration and internal structure depend on the sport, number of competitions, intervals between starts and total rest periods. Training and competition activity are coordinated so that the athlete can demonstrate stable and high performance.

A recovery microcycle follows competition or high-intensity shock training. Training volume and intensity are substantially reduced, while physiological, psychological and energetic recovery becomes the main objective. It normally completes a competition or shock microcycle and creates conditions for an effective transition to the next training stage.

According to the distribution of training loads, microcycles may be one-peak, two-peak or three-peak. The amount, intensity and content of loads may vary considerably, but the functional purpose of the microcycle remains unchanged.

Microcycle planning must take account of fatigue and recovery after different types of physical load, as well as the cumulative effect of loads that differ in volume and direction. Small and moderate workloads may be used after large loads to facilitate recovery and stabilize functional condition.

The body's response to physical loads and rest can conditionally be described in three forms. In the first, athletic fitness develops rapidly because small, moderate, significant and large loads are applied in an optimal sequence. In the second, improvement is absent or slow because the loads are insufficiently stimulating or rest intervals are too long. In the third, fatigue, excessive strain and overtraining may occur because large and high-intensity loads are applied consecutively without adequate recovery.

Recommended Load Pattern for Volleyball Microcycles

Day	Introductory microcycle	Shock microcycle	Recovery microcycle
1	Technical improvement — significant	Technical improvement — small	Integrated work — moderate
2	Aerobic — large	Special endurance — large	Aerobic recovery — moderate
3	Speed — moderate	Integrated sequence — significant	Speed — small
4	Integrated sequence — significant	Speed — large	Integrated sequence — small
5	Integrated sequence — large	Anaerobic + aerobic — large	Integrated sequence — moderate
6	Aerobic recovery — small	Control match — significant	Integrated recovery — small
7	Rest	Rest / analysis	Rest

Key: small = low load; moderate = medium load; significant = substantial load; large = high load.

The organization of loads in microcycles is associated with the concept that a subsequent workload should, where appropriate, coincide with a favorable phase of recovery and supercompensation. If loads are repeatedly applied before sufficient recovery, a cumulative effect may occur; if they exceed the athlete's adaptive capacity, excessive fatigue and overstrain may develop. Recovery from different types

of physical load is heterochronous, meaning that different physiological systems recover at different rates.

Pedagogical recovery means are directly connected with rational annual planning of training and competition loads. The effectiveness of training methods, means and their direction, as well as the balanced volume and intensity of loads within micro-, meso- and macrocycles, is important.

At the end of training sessions, recovery-oriented workloads can help normalize the athlete's functional state. Special recovery sessions can also be incorporated into microcycles, especially during the transition period.

Pedagogical recovery can be combined with natural factors such as sunlight, air and water hardening. Psychological recovery methods are directed toward reducing excessive neuromuscular tension, nervous strain and psychological fatigue. Examples include self-suggestion, autogenic training, controlled relaxation, rational psychotherapy and muscle-relaxation techniques.

Medical-biological recovery means may include physiotherapeutic procedures, massage, manual therapy, water procedures, rational nutrition, breathing exercises, personal hygiene, an appropriate daily routine, and adequate sleep and rest. These measures should be applied as part of an integrated system and under appropriate professional supervision.

Recovery and stimulation methods should not be used excessively or without control. Excessive use may increase fatigue, reduce working capacity, interfere with adaptation and, in some circumstances, contribute to undesirable functional reactions. Rational alternation of loads and recovery can itself provide substantial benefit.

A mesocycle represents a specific stage of the training process as an integrated system and normally lasts from 3 to 6 weeks. The most common form is a four-week, or one-month, mesocycle.

Planning and organizing training through mesocycles provides a consistent and logical structure for training sessions. It helps coordinate the main tasks of the preparation period, optimize load dynamics, combine training means and methods appropriately, maintain balance among pedagogical influences, and organize recovery effectively.

According to their functional direction and tasks, mesocycles may be introductory, basic, developmental, control-preparatory, pre-competition, competition, and recovery mesocycles.

The introductory mesocycle gradually prepares the athlete for more complex training loads. General and special physical preparation are combined to develop endurance,

speed-strength qualities and flexibility and to establish the initial technical and competitive foundation.

The basic mesocycle expands functional capacity and develops physical qualities, technical-tactical preparation and psychological readiness. Large volumes of training means and relatively high-intensity loads may be used.

The developmental mesocycle is directed toward targeted development of physical qualities. Auxiliary and special physical-preparation exercises are used with considerable volume and intensity, while the direction of loads is highly concentrated.

The control-preparatory mesocycle integrates all components of preparation for competition. Competition exercises and a broad complex of special-preparation exercises are used, and training is brought as close as possible to actual competition conditions.

The pre-competition mesocycle removes minor technical, tactical and psychological deficiencies, improves and refines movements, and uses special exercises and microcycles that simulate competition conditions.

The competition mesocycle is intended to ensure effective participation in competitions and the achievement of planned results. Competition exercises are combined with stabilizing and recovery microcycles.

The recovery mesocycle, or transition period, is aimed at full recovery and medical rehabilitation. Loads are gradually reduced, recovery measures are introduced, passive rest and psychological rehabilitation are used, and active rest is then reintroduced progressively.

The structure and combination of microcycles within a mesocycle vary according to preparation tasks, total load and recovery time. When cumulative fatigue prevents full recovery, a recovery microcycle should be inserted. Scientific consideration of the interval between physical load and recovery helps prevent excessive fatigue.

For young athletes, the loads of one microcycle should not simply overlap the next. Large or substantial loads should be applied only after full recovery from the preceding microcycle. Alternating microcycles with different load levels is therefore particularly important in youth training.

In a mesocycle, the relationship between demanding training and recovery periods is a major methodological requirement. The greater the intensity and duration of a workload, the longer the recovery period normally needs to be. When two or three shock microcycles are planned consecutively, additional recovery microcycles should be scheduled, particularly before competition.

Planning mesocycles for female athletes may require consideration of individual biological and functional characteristics. The response to training loads can vary across phases of the menstrual cycle, so individual monitoring and appropriate adjustment of training may be useful.

The menstrual cycle is commonly described in phases, but individual variation is substantial. Training and competition decisions should therefore be made individually by the athlete, coach and qualified medical personnel, taking account of health, readiness and functional condition. During periods of discomfort or reduced functional capacity, training load may need to be reduced or modified.

Phase	Name	Typical duration	General functional state	Indicative load
I	Menstrual	3–5 days	Functional state may be lower; discomfort may occur	Moderate
II	Proliferative	7–9 days	Work capacity generally stabilizes	High
III	Ovulatory	4–5 days	Individual response varies	Moderate
IV	Luteal	7–9 days	Functional capacity may be moderate	High
V	Premenstrual	3–5 days	Work capacity may decrease in some athletes	Low

This table is an indicative framework rather than a universal prescription. Individual assessment and medical guidance are required when training or competition is affected by menstrual symptoms or other health factors.

Large cycles, or macrocycles, are completed and carefully planned units of sports preparation designed to prepare athletes to demonstrate high performance during important competitions of a season. Half-year and annual training cycles are examples of completed macrocycles.

The annual training cycle is commonly treated as the main macrocycle and is organized into periods and stages. Its structure depends on the characteristics of the sport, the athlete's qualification level, the competition calendar and the individual's preparation.

Macrocycles may differ according to the duration of preparation and the competition system. Multi-year preparation stages lasting two to four years are characteristic of high-performance sport. When a major championship is held once a year, an annual cycle may be used; when winter and summer championships are regularly held, half-year cycles may be appropriate.

A four-year macrocycle can be organized to maximize individual potential and prepare athletes systematically for the Olympic Games. The objective is to bring physical, technical-tactical, functional and psychological potential to a very high level.

When an annual training cycle contains one macrocycle, it is described as a one-cycle structure; with two macrocycles, it is a two-cycle structure. Each macrocycle normally contains three principal periods: preparatory, competition and transition.

The annual training cycle is the principal organizational form of the sports training process and consists of a preparatory period, a competition period and a transition period.

The preparatory period includes introductory, basic, developmental and control-preparatory mesocycles. It creates the foundation for comprehensive preparation. It can be divided into a general preparation stage and a special preparation stage.

The general preparation stage develops general physical and functional capacities. The special preparation stage increases competition-specific exercises, develops speed and competition endurance, strengthens specialized work capacity and improves technical-tactical skills.

The competition period contains pre-competition and competition stages. Its main purpose is to refine integrated preparation and ensure effective participation in competitions.

The transition period generally includes gradual reduction of loads, active recovery and medical rehabilitation, passive rest, and preparation for the next macrocycle. Its principal task is to restore the physical, functional and psychological resources accumulated during the annual cycle.

Examples of Annual Cycle Structures

Sport / structure	Preparatory period	Competition period	Transition period
One-cycle — cross-country skiing	Long preparation	Main competition season	Recovery
Two-cycle — swimming	Preparation for first season	Competition	Transition / second preparation and competition
Two-cycle —	Preparation	Competition	Transition, then

athletics			second preparation and competition
One-cycle — hockey	Preparation	Competition	Transition
One-cycle — football	Preparation	Competition	Transition
Two-cycle — volleyball	Preparation	Competition	Transition, then second preparation and competition

Preparatory period: general and special physical preparation, improvement of technical-tactical actions, and development of game models. Competition period: national championships, cup matches and international tournaments, with maintenance of sports form and stable performance. Transition period: active rest, recovery, health-oriented sessions and psychological rehabilitation.

The periodization of sports training concerns the distribution of training loads throughout the annual cycle for athletes of different levels. In the classical periodization model associated with L. P. Matveyev, larger-volume loads are emphasized during general preparation, while more intensive competition-oriented loads increase during special preparation and reach their highest relevance during competition. During transition, overall loads are reduced to facilitate recovery.

The classical model can be useful for organizing long-term preparation, but the exact distribution of volume, intensity and direction should be adapted to the sport, competition calendar, athlete level and individual response. Different researchers have proposed alternative approaches emphasizing closer unity between training and competition demands.

S. P. Letunov proposed an annual sequence involving achievement of sports form, maintenance of sports form, and a subsequent decline phase. A. N. Vorobyov and V. V. Verkhoshansky proposed approaches emphasizing the direction and concentration of training effects and a closer correspondence between training loads and the athlete's current state.

In sports that place extreme and specialized demands on the body, long-term performance is constrained by fatigue, excessive strain, injury risk, aging and the need for recovery. Therefore, periodization should be individualized and coordinated with the athlete's long-term preparation stage.

The unity and interrelationship of training and competition activity are particularly important in specialized sports. Functional and physical adaptations occur at different rates, so an athlete cannot remain permanently at a peak level of sports form.

GLOSSARY

Term	English definition
Referee	A person who supervises a sports competition, ensures that it is conducted according to the established rules, evaluates participants' results, resolves disputes arising during a match, and is responsible for the proper conduct of the competition.
Secretary	A person who records the minutes of the referees' board, conducts the draw, determines the order of matches, prepares the competition schedule, completes refereeing documents, receives applications and protests, informs the chief referee, and prepares the technical report on the competition.
Competition	A contest in which participants compete to achieve better results.
Regulation	The principal document governing a competition. It normally specifies its aims and tasks, management, participating organizations and athletes, conditions, protests, awards, accommodation or acceptance of teams, and applications.
Tactics	A term derived from the Greek word 'taktikos/taktikus', referring to the organization and arrangement of actions in pursuit of a goal.
Sport	In a narrow sense, competitive activity; in a broad sense, competitive activity together with the specialized preparation, standards and achievements arising from that activity.
Association	An organization or union formed to achieve a common goal.
Federation	An organization established to develop and popularize one or more sports and to organize sporting events.
Technique	The core part of a movement-activity

	system required to perform a task. Effective techniques coordinate body segments and movement sequences and can be applied efficiently in practice.
Physical training	The result of physical preparation expressed through developed work capacity and practical movement skills and abilities that contribute to effective performance.
Sports training	A specialized direction of physical education whose purpose is to enable a person to achieve high results in a selected sport.

CONTROL QUESTIONS

1. What are the main tasks of the Uzbekistan Volleyball Federation?
2. What is the name of the highest governing body of the national volleyball federation?
3. In what areas do district, regional and city federations operate?
4. How is cooperation between state and public organizations organized to popularize volleyball?
5. How is the management structure of a volleyball federation organized?
6. How does the Uzbekistan Volleyball Federation cooperate with international organizations?
7. What responsibilities do local federations have in organizing volleyball competitions?
8. What role does the national conference play in the activity of a volleyball federation?
9. How is work with coaches, referees and athletes organized within the federation?
10. What is the role of mass sporting events in the development of volleyball in Uzbekistan?
11. What is meant by cyclicity in the sports training process?
12. What is a microcycle and how long does it normally last?
13. What are the main tasks of a mesocycle?
14. Explain the concept of a macrocycle and indicate its typical duration.
15. What are the stages of long-term sports preparation?
16. What elements make up the microstructure of the training process?
17. Into how many levels did L. P. Matveyev divide the structure of training?
18. What significance does supercompensation have in the training process?

19. What negative effects can incorrect planning of training loads have on an athlete?
20. Explain the importance of the principle of cyclicity in developing volleyball players' technical-tactical and physical preparation.
21. Explain the importance of management and planning in a long-term training system.
22. Explain the relationship between the team reference model and the training-process model.
23. List the main directions of the management-goals block.
24. Describe the content of work performed in the modeling block.
25. How is preparation planned through the program block?
26. What are the specific features of organizing training in the process block?
27. What are the functions of the control block and its role in the preparation process?
28. Explain the reasons for changes in the ratio of technical-tactical actions in modern volleyball.
29. Why are age composition and positional balance important when forming a men's team?
30. Explain the influence of microcycle structure on the dynamics of sports form.

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