BE A PART OF YOUR FAVORITE GAME

GUIDELINES ON TRAINING IN VOLLEYBALL FOR 9–19 AGE

Coach Handbook

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CHAPTER 01

VOLLEYBALL DEVELOPMENT SYSTEM

When we ask the players to improve every day, then
why do we stand at the same place

Doug Beal

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- CHAPTER 1 -

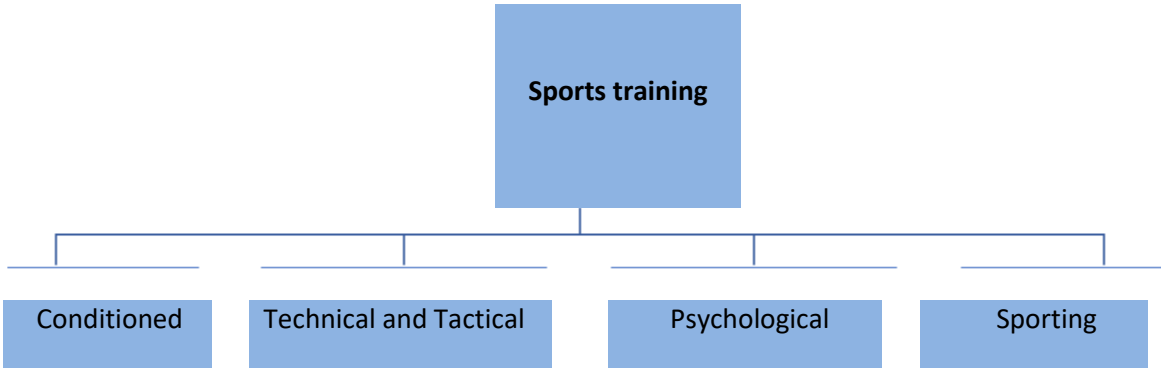
SYSTEM OF VOLLEYBALL DEVELOPMENT

The volleyball development system includes terms that we need to clarify. There are two basic concepts:

- **Sports training** – it covers the targeted use of all means, methods and forms with the help of which technical and tactical skills are mastered, developed and improved and high sports achievements are realized.
- **Sports practice** – it includes those components of volleyball players' training, which are implemented on the basis of exercises.

GOAL AND OBJECTIVES OF VOLLEYBALL TRAINING

Goal – To reach the maximum possible level of conditioning, technical-tactical, psychological and competitive preparation for each volleyball player and team in order to achieve high sports results.



In order to achieve the main goal of sports training for volleyball players, the following **tasks** must be completed:

- Learning the technique and tactics of volleyball;
- Development of the motor abilities and high level of the functional systems of the players;
- Ensuring the necessary level of psychological preparation;
- Acquisition of theoretical knowledge and practical experience necessary for successful training and competition activities.

MAIN ASPECTS OF VOLLEYBALL TRAINING

The sports training of volleyball players is a complex sports and pedagogical process that includes a number of factors necessary for successful and accurate playing of the game. The three components forming the content of the disputed training are: **training – competition – recovery**.

The training process and participation in competitions are interconnected, as the basis of both components is the quality and adequate distribution of loading and recovery.

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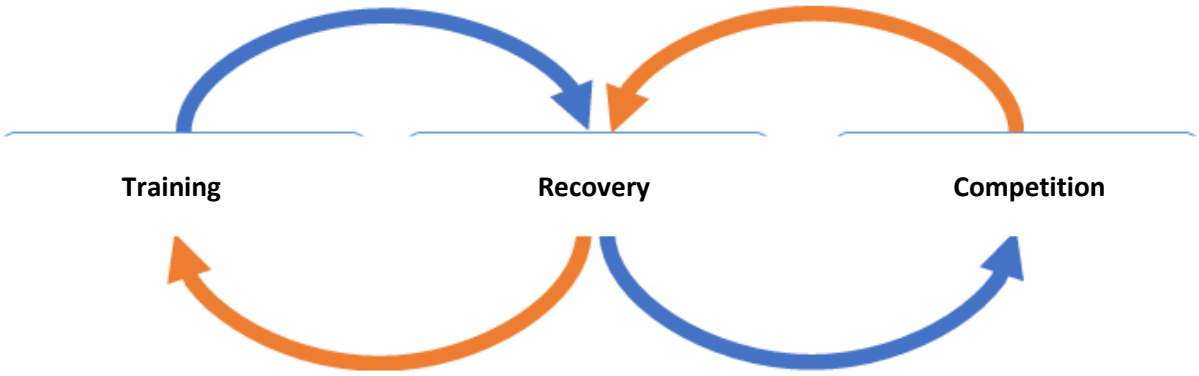
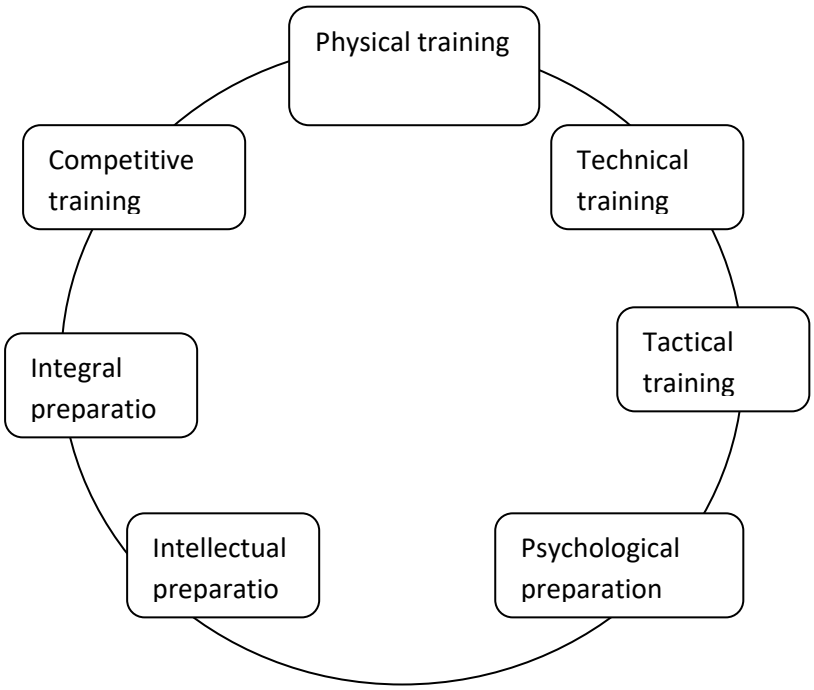


The implementation of training and competition activities is carried out through the main parts of sports training:



GOALS AND TASKS OF VOLLEYBALL TRAINING

The **goal** of each sports training is one – to train in such a way that the trained volleyball players can reach a maximum level of training, guaranteeing the achievement of the planned sports results.

To achieve the main goal of sports training for volleyball players, it is necessary to perform the following tasks:

- Mastering and improving technique and tactics in volleyball;
- Improvement of motor skills;
- Cultivation of willpower (training for victory);
- High level of psychological resilience;
- Acquisition of theoretical knowledge necessary for successful training and competition activities.

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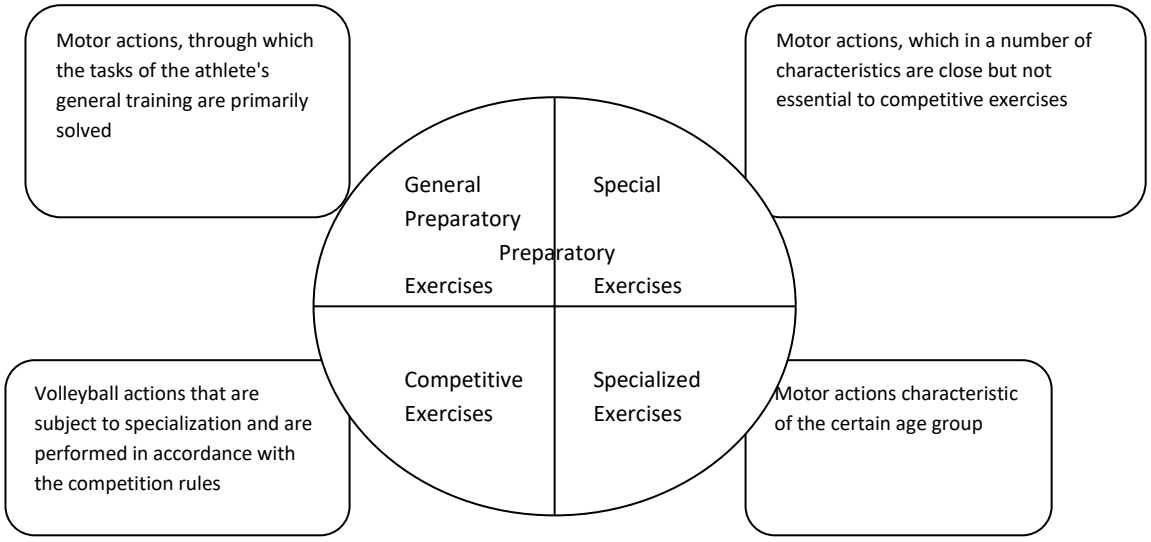
VOLLEYBALL TRAINING METHODS

Modern methods of sports training include not only physical exercises, but a whole set of computer programs and applications for control, evaluation and modelling of the entire training process. This is a targeted program for their implementation, serious psychological training and wide-ranging theoretical training. Serious training methods imply planning and a detailed program of exercises. The methods in their essence determine the style and manner of conducting the preparation. In the process of sports training, three main groups of methods are used:

- General pedagogical
- Practical
- Strictly regulated exercise method:
  - Analytical – dividing the whole into its component parts.
  - Synthetic - a method of combining two or more separate elements or components into a single whole.
  - Comprehensive (global)

VOLLEYBALL TRAINING TOOLS

Physical exercises are the main tool of sports training:



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STAGES OF INITIAL TRAINING

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CHAPTER 2

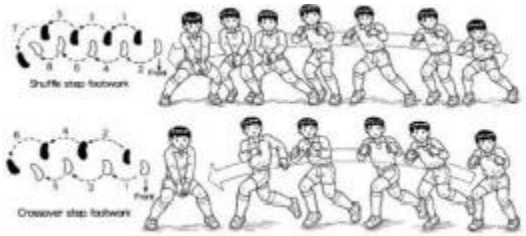
STAGES OF INITIAL TRAINING

Initial training in volleyball begins with learning the so-called assistive technology. It precedes the training of the volleyball elements. So, attention must be paid to movements without the ball and taking the correct position to play with the ball. Children must learn to rationally execute all volleyball movements over short distances. The resources in this period are entirely oriented at developing the quality of speed and the abilities of agility and coordination.

Initial training begins with an introduction to the terminology of a given concept and continues into "learning by observation". The coach shall show the specific movement and shall explain the individual phases.

It is imperative to always state the purpose of the movement, explain why it needs to be done this way and how it will improve their future skills. Athletic movements are applied with great success that should fully reflect volleyball movements. In this period, movements that will find their realization in 2-4 years are also being committed.

- Walking in different positions, at different speeds, facing or with your back in the direction of movement, left and right, diagonally with different width and length steps;
- Movements after a signal – sound, visual, and tactile;
- Movements with simple (previously known) and complex (reaction to a moving object or reaction with a choice) motor reactions;
- Coordinated movements with multidirectional participation of the hands;
- Movements from different starting positions;
- Movements, bounces and throws in an unsupported position;
- Coordinated movement and throwing with balls of different sizes and weights.
- Acrobatics and juggling;
- Squats and lunges;
- Creeping and crawling;
- Running in different positions, at different speeds, facing or with your back in the direction of movement, left and right, diagonally with different in width and length steps;
- Running with a change of direction of the driven;
- Jumping running on one or two legs;
- Slalom running;
- Jumps with one, two or three steps;
- Jumps from a place, after an extra step or after a cross step;



The training work performed is intended to cause a response in the children's body and to create a certain training effect. Periodically repeated loadings cause the corresponding adaptive reorganization

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in the body. By varying the components of the training load, the same exercise can have a different training effect.

- With intensive work up to 15 seconds, 5-6 sets, 2-3 min. rest between sets, there is an anaerobic-alactate effect, i.e. energy supply is one of the fast mechanisms of energy generation. This is a work for special speed.
- With intensive work up to 30 seconds, 6-8 sets, 1-2 min. rest between sets, there is an anaerobic effect. With such energy supply, speed endurance is achieved.

For special speed	For speed endurance
• 15 seconds work • 5-6 series • 2-3 minutes rest	• 30 seconds work • 6-8 series • 1-2 minutes rest

- Speed-Strength abilities improve based on overall strength fitness. The most acceptable for strength training are exercises to overcome your own weight (squats, pull-ups, jumps, etc.) and exercises with a partner (squats).
- The same exercise can have a different training effect when placed at the beginning or at the end of the training. Squats placed at the beginning of the training and performed at maximum speed 10-15 repetitions, 3 series, rest 1 min. have a speed-strength character. The same exercise placed at the end of the training and performed at maximum speed and changing the rest to 30 seconds, we direct the work for speed-strength endurance.
- It has been established that for the most effective development of speed and strength abilities in children between 9-11 years of age, the exercise of bouncing on a chest of drawers at a height of 30 cm with subsequent bouncing upwards is used. In this way, working with 6-8 repetitions in a series, the directionality is of a speed-power nature. Bounce height reduction occurs between 8 and 10 attempts. Increasing the number of repetitions to 10-12, work is already directed towards developing speed-power endurance.

At ages 7-10, coaches should consider the following factors when working with beginners:

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(Movements are performed incorrectly and do not resemble the desired end result;)

(Movements are accompanied by many additional muscle groups;)

(The central nervous system is extremely busy and children's attention quickly decreases;)

(Lack of coordination makes movements stiff and choppy;)

(Training should be concentrated within 1 hour, 2-4 times a week;)

(Too many coordination exercises quickly tire the nervous system and concentration decreases.)

In the initial stages of training, children should engage in low-intensity training programs where special importance is directed to the creation of a relaxed atmosphere, fun and gaiety. Young volleyball players are not able to maintain long-term concentration of attention, but they are ready for active actions. For this reason, they do not stay in one place and are not able to listen to long explanations. That is why training should be varied and creative. The groups can be mixed, and girls and boys be trained together.

The developed exercises, games and sports events allow all children to take maximum active participation. Any creative initiative and ingenuity on their part should be encouraged. The games they play should be simple and understandable. Developing the ability of self-control will allow preparing for higher requirements in training and upcoming competitions at the stage of specific sports habits formation. It is important to emphasize the need for compliance with controversial rules and ethics with the principles of fair play. Any single training must convince the children that playing volleyball is fun and entertaining.

In the age group 7-12 years, it is necessary to emphasize the multifaceted development. The age group 13-14 is transitional with initial forms of general specialization, then the age group 14-16 years on narrow specialization. The development path of a player and/or team is not determined by age limits, but by the individual abilities of the specific player and/or team. It is important that the athlete and/or the team do not skip a period of their development.

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Versatile development	*Transition period with general specialization*	*Period with work on narrow specialization*

It is possible that the period of narrow specialization shall begin earlier, but in this case the problem of traumatism and psychological attrition arises. Various scientific publications have described cases of children in primary education from the age of 9, divided into two groups. The first group trained according to a program in which the methodology is performed with narrowly specialized exercises. The second group is trained for the development of physical qualities and training in a specific mastery. The techniques of various types of sports have been mastered, ensuring general physical development in the child's organism. At the end of the program, the scientists made the following conclusions:

- In the case of early specialization – rapid growth of sports technique, the high level of sportsmanship is reached in 15-16 years of age, insufficient readiness for high results in competitions, many of them end up with sports at the age of 18, predisposition to traumatism as a result of forced adaptation.
- In the multifaceted development – a slight increase in sports technique, the high level of sportsmanship is reached at 18 years of age and later, a stable condition towards high results in competitions, a long sports career, low level of traumatism, and gradual adaptation.

The purpose of the diverse development of very young volleyball players is to improve the overall process of their versatility. Children and adolescents who develop different sports skills, agility and coordination of movements are better adapted to training loads.

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At the age of up to 12 years, learning of the technical elements begins sequentially**:**

An accurate, clear and terminological description of the item;

Detailed demo

Independent imitation action - starting position, movement, dismembered performance;

Exercises with a ball alone;

Ball exercises with a partner;

Game-like exercises;

The training should be concentrated within 1½ hours, 2 - 4 times a week.

This level is characterized by the appearance of many errors. The coach's task is to immediately make his corrections. Regarding the physical qualities, it should be understood that the calendar age does not always correspond to the biological age (accelerants and retarders). Children misimagine and misperceive the movement of their muscles. **The coach must create conditions that incorrect performance shall be almost impossible.** Psychologically, the feeling "fear of making a mistake" appears. At this moment, the role of the coach is very important, not to reinforce this feeling, but to give confidence to the player, and to encourage him to further actions.

A basic didactic principle that must be observed is to study from the simplest to the most complex movement. The main physical quality is coordination – familiarity with the locomotion of one's own body. After the players have mastered basic movements, game and competition tools are applied, which bring an additional emotional charge to the lesson.

Sequence in learning the technique of movements

Accurate, clear and terminological description of the movement

Detailed demo

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It should be noted that errors related to individual anatomical characteristics and low mobility in the joints, during movements and positions, limit the correct execution of the technique.

Special attention is paid to prevention. Strengthening in the individual units of the movements is achieved with the help of:

- Exercises with own weight;
- Medicine balls up to 1 kg;
- Rubber bands and expanders;
- Hoops;
- Gymnastic sticks.

*Special attention should be paid **to conscious breathing**. Improper breathing creates disorders with an unbalanced nervous system, narrowing of the airways, constricted blood vessels, less energy, etc.*

HOW TO BREATHE IN THE TRAINING PROCESS?

We take deep breaths before engaging in strenuous physical exertion. This is a natural unconditioned reflex as the body needs to provide itself with enough oxygen to keep all systems functioning properly. During exercise, however, the opposite should be done, inhaling with moderate effort and exhaling with increased effort. When performing exercises, it is important to remember that inhalation is done at the moment of muscle relaxation, and exhalation is done at the moment of their tension, when maximum effort is applied.

Breathing is less efficient if gas exchange occurs only in the upper respiratory tract – for example, during short inhalations and exhalations. The density of the blood vessels in the upper part of the lungs is very sparse, which reduces the potential for oxygen to enter the blood. For example, during push-

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ups we should inhale as we lower to the floor and exhale as we straighten our arms. Likewise with barbell pull-ups, exhale as you pull up, inhale as you move down.

There are two different ways to breathe: chest and belly. At the pectoral, the chest should expand significantly. This is achieved by tensioning the intercostals muscles. Abdominal breathing involves a much smaller number of muscles; this type of breathing is less exhausting and occurs involuntarily during rest. Conscious abdominal breathing can be of particular benefit during times of not only physical but also mental stress, as more energy is available throughout the body. In addition, this breathing uses the full volume of the lungs, thereby allowing air to enter the lower part of the lungs and more oxygen to reach the alveoli. Accordingly, there will be a greater saturation of the body with oxygen. We breathe like this while running or exercising. We consciously focus on "stomach" breathing so that you reach the full potential of your entire lung capacity.

Aerobic (cardio) exercise is exercise involving oxygen. In other words, it is endurance training, when movements and muscle contractions are carried out with the participation of oxygen. A clear sign of aerobic training is rapid breathing. Two indicators grow simultaneously: pulse (heart rate) and respiratory rate. Breathing during aerobic exercise should not become shallow.

Inhalation during exercise is preferably done through the nose. First, we protect ourselves from dust and bacteria. Secondly, in this way the air is moistened and warmed. Third, breathing through the mouth results in "compression" of the lungs by the diaphragm and rapid breathing. This reduces the flow of oxygen that is needed to oxidize and burn fat. We can exhale during exercise in any convenient way. But in any case, we cannot hold the exhalation, and leave it at the very peak of the effort. This way of breathing overloads the cardiovascular system.

If you follow the suggestions above and synchronize the speed of your movements with a steady rhythm of breathing, you will lay the foundation for increased performance combined with maximum efficiency.

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- CHAPTER 03 -

BASIC FORMULATIONS OF THE TECHNICAL ELEMENTS

"Before you can teach, you must first learn"

- JOHN FORMAN & MARK LEBEDEW -

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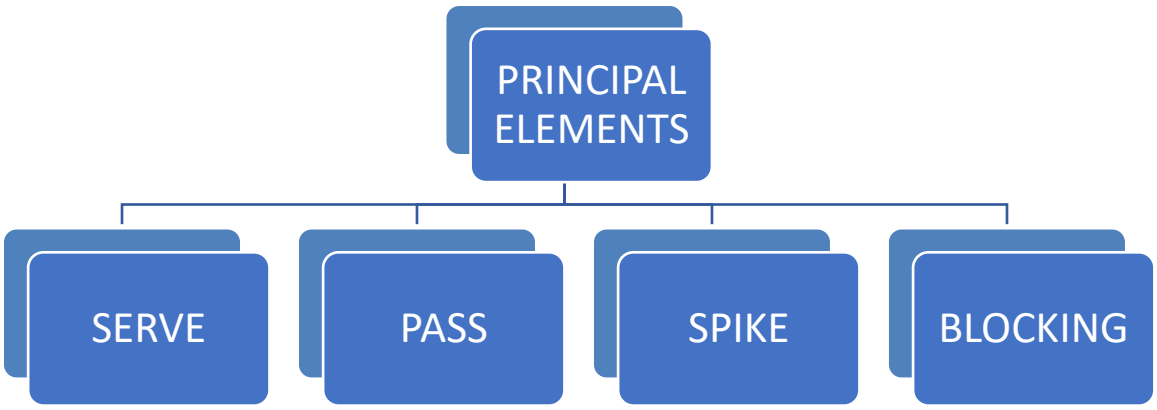
- CHAPTER 3 -

BASIC FORMULATIONS OF THE TECHNICAL ELEMENTS

The analysis of the elements covers the period 7-12 years of age. The goals of the training are to acquaint the children with technical skills, increase coaching competence, understanding by parents, relatives and for all who love and want to play volleyball, regardless of their age.

We recommend during the study to use a mirror reflection of the learner – Independently, in order to have an instant feedback with his biomechanical movements and the sensation (sensory perception) through the tactile bodies, for timely correction. Another recommendation is the use of mobile phones to record video and then to make individual and group analysis of the footage. It should be clear to the children that it is not mainly force that is used, but TECHNIQUE.



UNDERARM FRONT SERVE

The phase structure of the underarm front serve includes:

1. Taking a starting position;
2. Tossing the ball;
3. Hit the ball;
4. Accompanying movement.

The performer stands in a cross-legged stance, with the different leg of the hitting hand extended forward. Feet are shoulder-width apart and parallel. The toes point forward towards the net. The legs are slightly bent at the ankle, knee and hip joints. The weight of the body is shifted forward to the upcoming leg. The shoulders are perpendicular to the direction the ball will be headed. The pitching hand holds the ball in the palm, bent at the elbow joint, in the plane of the hitting hand. The hitting arm is extended and brought back, along the body.

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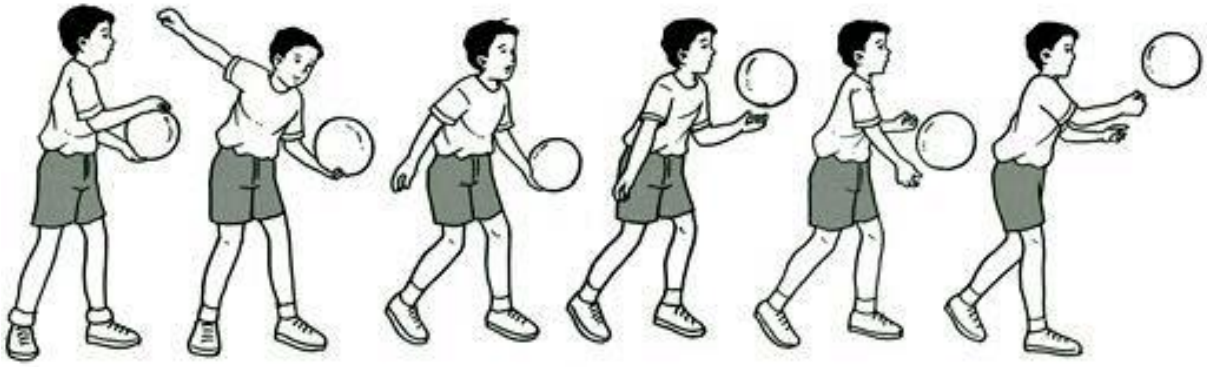

In the underarm front serve, the throw height is no more than 5-10 cm up. At the same time, the striking hand is brought back and up, above the level of the waist-high.

Next is hitting the ball. With a free swing past the thigh of the back leg, the arm swings back forward and up and strikes the ball with the entire surface of the inside of the palm. At the same time, the knees are extended and the weight of the body is transferred entirely to the front leg. The wrist of the hitting hand is tight and fixed, and the fingers are tucked together. The ball must be hit from below and behind. After hitting the ball, the hand has an accompanying forward and upward movement.

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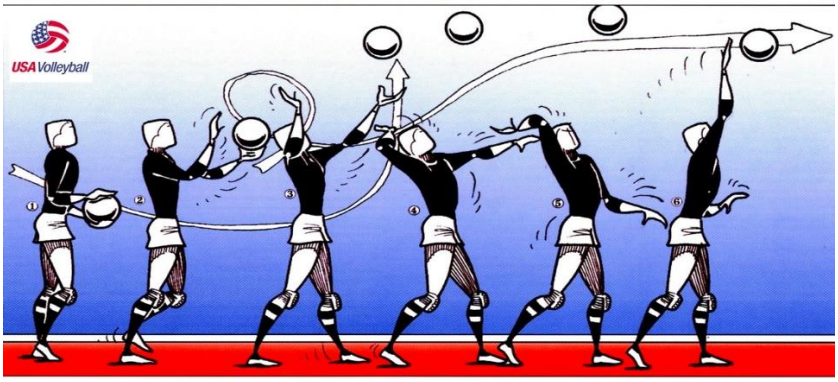
OVERHEAD FACE SERVE

The phase structure of the serve includes: taking a starting position, tossing the ball, hitting the ball, and accompanying movement of the striking hand.



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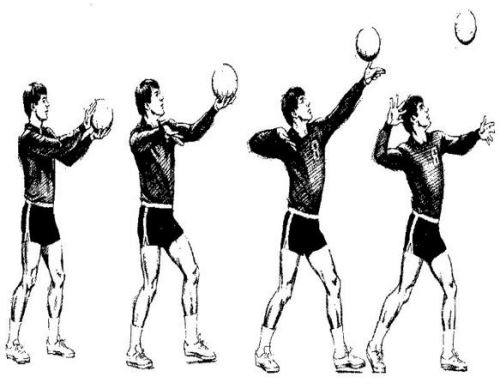
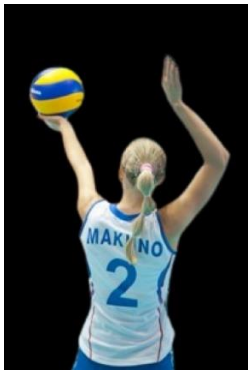
The performer stands in a cross-legged stance with the opposite leg of the striking hand extended forward (i.e. if the performer is going to hit the ball with the right hand, the left foot must be in front and vice versa). Feet are shoulder-width apart and parallel. The weight of the body is evenly distributed on both legs. The shoulders are perpendicular to the direction the ball will be headed. The body is upright. The ball is held by the throwing hand at chest height, in the plane of the hitting hand. The hitting arm is bent at the elbow, with the palm resting on the ball to pinpoint the exact spot.





The serve begins by tossing the ball 1–1.5 m up and slightly forward so that it is in front of the striking arm's shoulder. The striking arm is extended past the head as far back as possible, bent at the elbow joint. The body takes on the shape of a rainbow. Reverse movement begins. Almost simultaneously, the weight of the body is transferred forward, onto the leg standing in front, the corpse also stands up. The hitting arm is extended at the elbow joint, swinging and aiming at the ball.

Hitting is made with the entire surface of the palm, slightly below the equatorial section of the ball. This is followed by a pronounced sweeping movement with the wrist and fingers of the striking hand or a flat strike with a tight wrist and maximally extended fingers. The striking arm relaxes to the waist, and the weight of the body is transferred entirely to the leg standing in front.

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TWO-HANDS OVERHEAD PASS

The phase structure of the pass includes:

1. Movement (hands close to the body);
2. Taking a starting position;
3. Hit (damping and contact) on the ball;
4. Readiness for further actions.

In the starting position, the feet are shoulder-width apart, the toes point forward, one leg slightly extended forward. Knees bent at an angle of 130°. Body slightly tilted forward. Elbows bent at an angle of 100° and extended in front of the shoulders (in the middle position between the frontal and sagittal planes). The palms extended above the forehead, clenched at the wrists, the thumbs (above the eyebrows and pointing to the nose) and the forefingers form a triangle. Simultaneously, palms and fingers form a hemisphere. The center of gravity is moved forward, under the shoulders.

The fingers are spread and maximally tense, trying to grasp the ball. The serve starts with cushioning the incoming ball from the wrists, elbows and feet. Upon full contact with the ball, extension begins in all joints, most powerfully at the elbow and shoulder.

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TWO-HANDED UNDERARM PASS

The phase structure of the submission includes:

1. Moving on
2. Taking a starting position,
3. Hitting the ball,
4. Readiness for further actions.

Contact with the ball is at waist height and sometimes lower. The body is in **a medium volleyball stance.** At the time of the serve, the Common Center of Gravity (CCG) is desirable to create body balance, but the varied flight of the ball sometimes causes it to be off balance.

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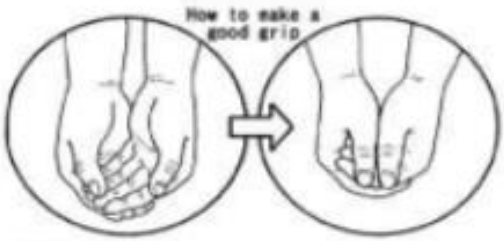
In the starting position, the feet are shoulder-width apart, one leg slightly extended forward. Knees bent at an angle of 130°. Body slightly tilted forward. Hands free in front of the body, slightly bent at the elbow joint. The center of gravity is moved forward, under the shoulders. If necessary, the height of the body relative to the flying ball is adjusted. The body is turned frontally to the incoming ball, and the hands are grasped in the palms - the fingers of one hand are placed on the fingers of the other (almost perpendicular to each other), the palms point upwards. The grip is gathered, tucking the thumbs into the palms. The thumbs are placed parallel and glued together. **The arms are stretched and supine so that the elbow joints are as close to each other as possible, and the shoulders are brought forward.**



The legs lift the body slightly up and forward against the flying ball. The hands are brought together and grasped above the knees at waist height to avoid the big swing, **a platform** is formed. The movement of the arms is exclusively from the shoulder joints, and the impact on the ball is with the lower half of the forearms. At the moment of contact with the ball, the speed of movement of the hands decreases sharply and a prerequisite is created for the ball to bounce and go in the desired direction. After that, the hands are released and the **volleyball stance is taken again, ready for further actions**.

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DUNKING IN THE DIRECTION OF SPEEDING UP

The phase structure of dunking includes: boost, bounce, movement of the hitting hand, hitting the ball, and landing. These phases are highly interdependent because what happens in each phase is influenced by what happened in the previous ones.

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Dunking is required for two main reasons:

- **First** – to move the athlete to a place where, after the rebound, the best contact with the ball will be made;
- **Second** – to create horizontal speed to generate a greater prop response on bounce.

The result is a higher bounce and a more powerful impact on the ball.

It is carried out with a certain number of running steps and with an additional step at the end. All of them have an accelerating nature, and their number and length depend on the distance to the place where the rebound will take place and on the ball passed for attack.

Usually, right-handed players should step in with the left foot, followed by a longer step with the right foot and add the left one to the right. On the last step, the arms are brought back into a swing position.

In the extra step, the left foot is placed next to the right at a distance of 20-40 cm. from it, placing the foot slightly transverse to the direction of dunking. During the extra step, there is a slight flexion in the hip and knee joints, and the arms from the swing position have started a downward movement.

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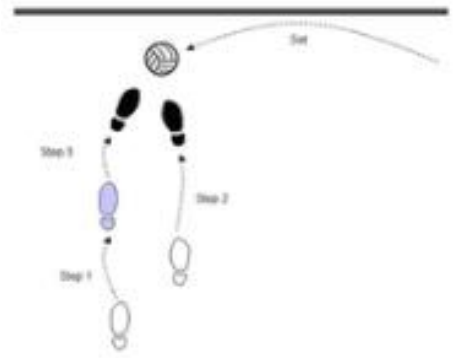

The rebound is the next phase in the structure of the dunk. It is performed with a powerful and synchronized extension in the hip, knee and ankle joints and an energetic continuation of the arm wave from behind – forward and up. The body enters an unsupported flight phase, in which both arms move almost simultaneously to the chest, and the legs begin to bend at the knee joints.

After crossing the body line, the hitting arm bends slightly at the elbow joint, and the other pulls the body up. **Before it reaches the level of the shoulder, the elbow is brought back as far as possible, while at the same time the shoulders rotate in their vertical axis in the direction of the striking hand.** The palm of the hitting hand is naturally extended upwards with the wrist as relaxed as possible. At its end point, the elbow is slightly above the level of the shoulders, and the forearm is freely bent relative to the upper arm at an angle of 90°-130° (this angle is strictly individual).

The next phase is **hitting the ball.** It is performed at the highest point of the flight phase and the ball is contacted high above and slightly in front of the head. The non-hitting hand is initially used for balance, and then enhances the rotation of the body around its axis. **The movement starts from the elbow** as far as possible up and forward, the wrist rotates around the axis of the elbow and continues the movement up and forward.

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The shoulder of the hitting hand is higher to reach a higher point when striking the ball. When driving in the direction of dunking, the blow is applied with the palm from behind and above the ball, and the fingers together with the wrist cover it. ***Hitting the ball is accompanied by a powerful exhalation***. After contact, the arm continues its natural forward and downward motion.

The final phase of the dunk is **landing**. It should represent cushioning in contact with the floor, i.e. to be soft, on the toes and with subsequent slight bending in the knee joints.

BLOCK

Blocking begins at a later stage in the development of young volleyball players. This is a technical element where the training begins after the previous elements have been mastered and after the young volleyball players have the necessary technical and tactical potential to master.

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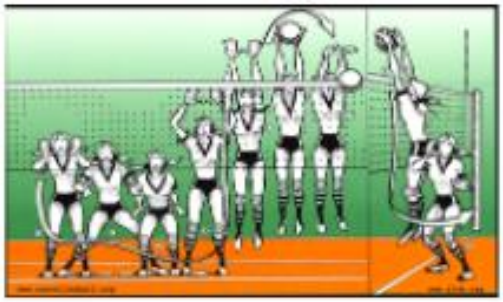

The block is performed **from a place or after moving**. Moving can be performed with a step, a cross step, less often a hop, simple steps (walking) and running.

The phase structure of the blockade includes:

1. Movement;
2. Bounce after moving;
3. Carrying the hands into the opponent's field;
4. Landing.

The starting position is facing the net at a distance of 30-40 cm from it. Feet are shoulder-width apart, and toes are slightly apart. The knees are bent at an angle of 160°. The body is slightly tilted forward. The elbows are bent, **the palms are in front of the body at the height of the shoulders** or slightly higher, the fingers are wide open.

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The rebound starts almost simultaneously from the arms and legs. The body enters an unsupported position. The palms, crossing the upper edge of the net, actively enter the opponent's space. The arms are parallel to each other and the wrists are slightly bent forward. Starting at the level of the pelvis, the entire upper body is maximally tense – most strongly in the shoulders, wrists and fingers. After reaching the maximum height, the **landing phase** begins, during which the palms are brought back and the player lands with cushioning – from toes to heels.

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- CHAPTER 04 -

METHODICAL GUIDELINES OF THE TRAINING PROCESS FOR ADOLESCENTS

"A carefully **considered but flexible plan** can lead to success – both for a swimmer, a potential star of the Olympic Games, and for any person who strives for the ideal in everyday life"

- **BOB BOWMAN** -

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- CHAPTER 04 -

METHODICAL GUIDELINES OF THE TRAINING PROCESS FOR ADOLESCENTS

Planning and organization of the training process determine the training methodology for achieving the technical and tactical goals.

Formation of the technique – Individual and team is a result of the volume, intensity and quality of training. The correct application of didactics, the study and repetition of technical skills in the learning phase, together with the development of specific motor skills are of fundamental importance when working with children.

Correcting the wrong movements (correctly defined) is the object of work in the next phase of development of young volleyball players – age of 13-16 years. Corrective exercises can also be included at an older age, when a tendency to bad habits is noticed when performing technical tricks.

Means of reaching for technical skills:

- **Analytical** exercises – dissection of a volleyball element into its constituent parts and work on its study, consolidation and improvement.
- **Synthesized (synthetic) exercises** – interactions of several players with different technical skills.
- **Global exercises** - 6 on 6 work, including the phases of the game – side-out (1st phase – to meet, lift, attack, and secure) or break-point (2nd phase – to block, defend, lift, attack, and secure).

Global

Synthesized

Analytical

The general concepts of the technique development methodology include work planning and error correction.

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Training planning shall include:

Main topic

- For example Attack

Secondary topic

- For example, an attack after a meet or an attack against a block

Permanent topic

- For example serve and meet the ball

Important principles when planning the training:

• **Goal** vs. **Capability**:

Each exercise should have a clearly defined goal	The purpose of the exercises should correspond to the abilities of the competitors

- The focus of the work is aimed at developing the correct motor functions and positioning of the technical elements, both with and without a ball;

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- Adequate training pace – **intensity** should not be at the expense of quality. Often coaches are more concerned with "**HOW MUCH**" to train in the gym than "HOW" to train;

- Introduce new topics or exercises that require high concentration at the beginning of training (especially when analytical work is performed);
- Train the technical elements in a global form (game situations) after **a correct performing** is acquired – otherwise there is a risk of acquiring "**personal adaptation**" to **wrong habits**;
- Exercises using several technical elements (attack after receiving the ball) have less effect on fixing and confirming the individual technique (attack without receiving the ball);
- Never stop the ball, except when correcting a wrong movement or when initially learning a certain technique (analytical work);
- Attitude towards errors.

What mistakes should not make

The player must know!

What minor errors is making

What mistakes he should almost never make

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CORRECTION OF ERRORS

Correction of wrong movements should be worked on mainly in the players of 13-16 years of age, when the phase of consolidation of technical skills is observed. Correction is possible even before this age, provided that the future volleyball player has a clear technical grasp. With children at an earlier age, it is also important to pay attention, but not so insistently, because the future volleyball players have not discovered the most accurate movements to express their essence.

In order to correctly apply the correction in the technique, it is necessary that:

- Coaches shall have **role models** (players who perform particularly well the technical skill that needs to be corrected);
- Monitoring and diagnostics of the error – analysis of the causes. Sometimes coaches "**get used**" to seeing the same mistakes and, even worse, to "**justify**" them.
- Once the error in the technique is established, it is good to include **analytical exercises** to change the motility. It is also important that the players are aware of what their mistake is and work consciously to eliminate it.
- Analytical work to eliminate the wrong movement must be done in parallel with the development of the correct motor skills associated with this error. For example: if in the attack the execution error is in the phase of bringing the striking hand back, then it is good:
    - Achieving personal awareness and conviction in the correctness of the action
    - Proprioceptive training - repetitions with closed eyes and little weight of the correct movement of the hands (the competitor must "feel" the correct execution);
    - Specific work on coordination (e.g. hand swings with different types of run-ups, bounce swings, etc.);
    - **Slowing down the overall implementation** until the necessary performance is achieved and gradual acceleration;

Optimal subconscious speed

Optimal perceived speed

If necessary, use special aids - rubber bands, balls of different weight and surface (excellent for proprioceptive work), means such as balloons, sticks or towels for feeding from below.

- An opportunity for the competitor to "observe" how he performs the technical movement is of great benefit. Taking a camera shot (even with a phone) of the wrong move is very helpful for the competitor to understand and analyze what they need to change;
- Using short, clear key phrases to 'photograph' the correct movement. E.g. "hand looking at hand" in the overhead pass, and "bow pull" in opening the shoulder in attack.

The correction of the technical gesture **MUST** be carried out through efficient and necessary approaches that are an integral part of the coaching work:

- The technical error should not be communicated only verbally. If too often only the mistake is noted, it leads to a decrease in the self-confidence of the player and the opposite effect is

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obtained. It is important to provide the opportunity to perform the correct movement during training, as well as positive incentives when progress is made;

- Correct only one movement at a time. The player must concentrate on the correct execution of one gesture. Sometimes coaches are in a hurry and work on 2-3 things at the same time, from which the effect is small;
- Analytical work for correction must be present every day in the training process and is fundamental in its programming;
- Certain corrective exercises that are suitable for some players are not always good for others. The concept is: "Giving the right treatment to the right patient".

- Motivation – the desire and self-awareness of players to get better is a very important part of the job. If the coach turns to the other side and the player does the opposite, then this is a wasted effort.
- It is of fundamental importance that children get used to being demanding of themselves and others, because this is a prerequisite for significant technical improvements.
- Teach children not to accept mistakes, let alone justify them

TACTICAL DEVELOPMENT – A GAME

The didactic progression of the game is from simple to complex. The tactical concept starts individually from 1 vs. 1 to 6 vs. 6, through the most diverse forms of play – changing the dimensions of the field, the height of the net, the number of players, the rules and the scoring system. Here we will list the main concepts of game development:

- Progressiveness of the game – postpone specialization by positions (fours and centrals). Early specialization slows down the individual complex development of competitors;
- The game part must be adequate to the technical capabilities and reflect the goals set in the training;
- Technical improvement improves and favors tactical development;
- Young teams should not hide technical defects, but work to eliminate them;
- Use "modified" games – "tennis", games 1 to 1, 2 to 2, etc.;

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- Introduce 6 v/s 6 always applying the concept of "BEFORE-NOW-AFTER" in the two separate phases of the game. Phase 1 (Side-out) – meet, lift, attack, secure, Phase 2 (Break-point) – block, defend, lift, counterattack, secure.

BEFORE	NOW	AFTER
Before a serve, shalltake a correct body position	During the serve shall focus on the ball	After a serve, shall take up a position in your defense zone

- Development of game situations based on well-defined tactical situations, for example - block-defense with dunk from zone 4 on the straight. This type of game is good to do without scoring to give the opportunity to explore different game situations.
- Work on 6v6 game situations by accomplishing certain tasks. For example, a side-out of 5 serves without a direct point in reception.
- Never offer solutions to situations - challenge the players to think for themselves!
- Competitive mentality in training games. Players from an early age must be taught to fight and never give up.

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DEVELOPMENT OF COMPETITIVENESS THROUGH COMPETITION

The methodical aspect that differentiates the competitions in the small ones and those in the big ones is related to the fact that in the former the competition is rather a formative means to achieve the goal – **the ability to play**. While in the second, the competition is always decisive and is the **main goal of the training process**.

Competitions are an important formative tool for young children. Both competing teams have equally strong and weak points in their systems of play. Here it is important:

- The choice of competition level should correspond to the **team perspective** (youth team development project) or the **individual perspective** (player development project).

The performance model can be assessed by:

- Dynamics of realization of points (post, elements and techniques of play), i.e. where we score the most or most often points (e.g. from attack on 4 or from serve)
- Game elements and techniques related to the result (relationship between performance indicators and result). Example ratio of balls dropped and converted against a double block.
- Individual tactics based on technical capabilities (ability of the player to play tactically against the opponent). For example, against a low block at 4 shall look for more attack on the straights.

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- CHAPTER 05 -

EFFECTIVE WORK PATTERNS FOR TECHNIQUES IN ADOLESCENT WORK

"The way to success is in creating simple rules"

- Radostin Stoychev -

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- CHAPTER 5 -

EFFECTIVE WORK PATTERNS FOR TECHNIQUES IN ADOLESCENT WORK

AGE GROUP UP TO 12 YEARS

- The main priority is multi-year programming of the goals described below in the training process;
- Didactic orientation – basic and specific to the technique of the movements that make up each volleyball element.

PRIMARY OBJECTIVE = Establish basic techniques

By applying the various methods and means of training, the following tasks are pursued:

- Learning the technique of two-handed overhead pass and **the correct positioning for playing with the ball (under it);**
- Learning the technique of two-handed underarm pass and related ways of positioning in relation to the ball;
- Learning the serve (it is especially important to emphasize the underarm and overhead face serve);
- Learning the dunk and the dynamics during the speed-up and rebound phases;
- Learning some aspects of the block and related movement techniques.

POSITIVE DEVELOPMENT through the stages of motor learning is achieved through:

- ➢ □ analysis and synthesis exercises
- ➢ □ game situations with **simplified tasks (number of players, size of the field and technical-tactical requirements)**.

At this age, it is not considered necessary to focus on the performance and evaluation of playing abilities.

The basic techniques and elements needed for the dynamics of the game in this age group are:

- **Two-handed overhead pass**:
  - ✓ As an element for organizing the attack (second pass)
  - ✓ As a way/method of playing in defense
  - ✓ A distinction must be made between the two-handed overhand pass and the backhand pass
  - ✓ Differentiating the specific motility and dynamics of the two-handed overhead pass in the first pass (to meet or in defense) and in the second pass (to lift for attack)

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- **Two-handed underarm pass**
  - ✓ When meeting the ball with a focus on correct placement of the "platform" (grip of the hands)
  - ✓ In defense to keep the ball in play
  - ✓ When organizing the attack (second ball)
  - ✓ Learning to “control” the ball
  - ✓ Differentiating the use of the two-handed underhand pass according to the technical execution – pass from the spot, pass after movement and pass with landing.

- **High ball dunk from zone 4 and zone 2.**
  - ✓ Mastering the control and management of hitting the ball
  - ✓ Difference between hitting the ball in a dunk (with a wide hand on the ball) and an underarm face serve (with fingers tight and together on the back of the ball)
  - ✓ Mastering the speed-up for a dunk boost – focus on proper step sequence (with a wide “flying” second step and a “quick” follow-up third step).
  - ✓ Differentiating the direction of speed-up for dunks relative to the net and the ball.
- **Block movement techniques and arm control through proper extension, collection and tightening of the shoulder.**
  - ✓ Technique of moving with extra steps (without losing frontality to the network)
  - ✓ Anticipating the situation ("reading") relative to the quality of the second pass in the organization of the attack and the direction of the attacker's speed-up.

The game system suitable for this age group is:

- Initial use of **a system without specific posts**.

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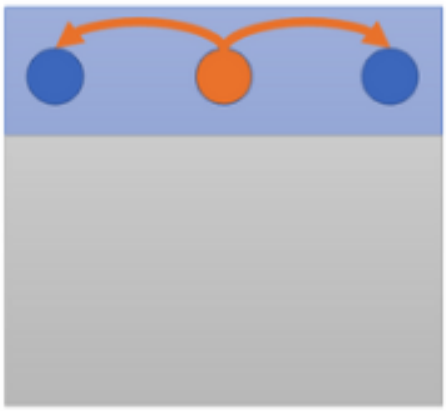
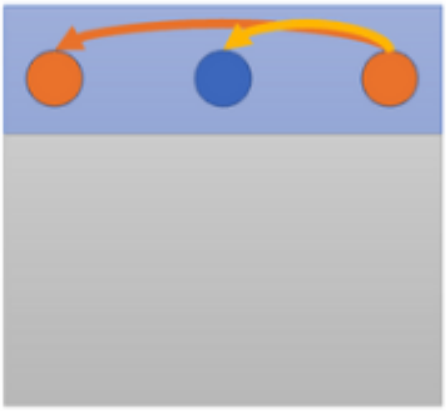
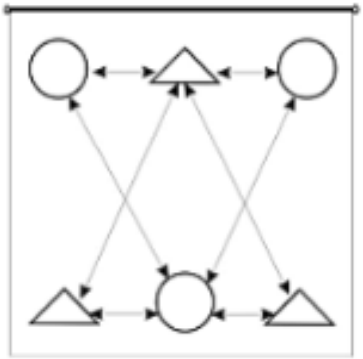
- ✓ Picks up whoever is in zone 3 with the ability to distribute the ball forward and backward – attack the entire length of the net.
- ✓ No designated zones in defense.

- Ability to use atypical systems – e.g. 3/3 (children assigned to lift are spread over one, alternating lifting from zone 3 and zone 2)





In this age group, it is methodologically inappropriate to apply the 5-1 and 4-2 systems with a distributor positioned to lift from zone 2.



THERE IS NO LEVEL OF SPECIALIZATION!

EVERYONE DOES EVERYTHING!

IMPORTANT!

- ➢ In this age group, differentiated overhead work is possible with the players who possess "good hands", which is established by the following characteristics:
  - Natural opening of the fingers, in the phase of contact with the ball.
  - When the elbows and arms are extended during the pass, quickness of movement is noticed in the wrists as well.
- ➢ The physical abilities of the players under 12 years of age is highly variable, as it is impossible to predict their development, but it has been proven that there is a relationship between the reactivity of the legs and the acquisition of technical-coordination abilities.
- ➢ The technical abilities of athletes under 12 years of age are primarily related to the sensitivity and feeling when touching the ball with two hands overhead and underarm – a controlled performance with minimal motor effort on the part of the athlete.
- ➢ Attention is primarily focused on individual performance rather than team play. The expression of personality can also be identified in the ability to take responsibility during play.

Summary table for guidelines for working with children up to 12 years old

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Up to 12 years old	
Main goal	Laying and development of the basic techniques
Methodological goal	Development of the positive technical experiences index
Techniques and elements in the didactic program	Passing – overhead and underarm, dunk, move block and serve float
Game system	No specialized posts
Basic forms of motor skills	Perceiving the axis of the body - preliminary position relative to the ball. Differentiated work
Reliability of technical skills	Developing feel when touching the ball – underarm and overhead
Specialization	No specialization
Tactic behaviour	Capacity to take responsibility and Personality index

AGE GROUP UP TO 14 YEARS OF AGE

MAIN GOAL is the functional adaptation of the basic techniques and elements, both in the synthesis exercises and in the game system. It is aimed at improving the quality of performance of the elements.

The methodological goal is the development of a **PEAK OF POSITIVITY**, expressed in the qualitative application of technical and motor skills both in synthesis exercises and in game actions during a match.

The basic techniques and elements needed for the dynamics of the game in this age group are:

- **Overhead pass:**
  - High ball lift – intended for all competitors.
  - Expanding the types of second pass trajectories for those who exhibit abilities in the distributor role.
  - References for passing accuracy – rings, forwards on chests, etc.
  - Analyze the trajectory of a lifted ball – top point, drop point and distance from the net.

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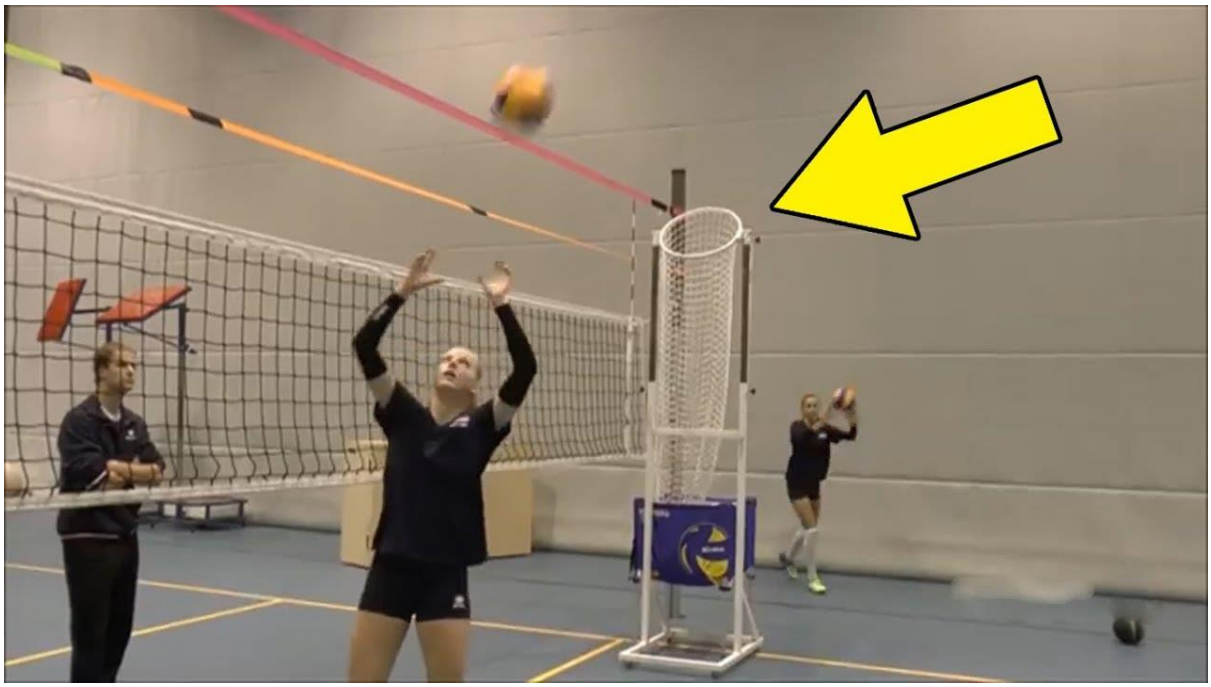

- **Receive**:
  - Receiving a serve with the aim of having the body position centrally oriented to the ball.
  - Overhead two-handed receive – (same central body position) on slower ball trajectories.

- **Dunking a normal/standard ball from zone 4 and zone 2**:
  - Stabilizing the tempo and rhythm of the dunk boost to the trajectory of the ball – for normal/standard ball and for high ball.
  - Stabilization of the optimal amplitude of the second step and body orientation through the third extra step – aimed at zone 5 of the opponent's court when dunking from zone 4 and towards zone 1 of the opponent's court when dunking from zone 2.
  - Looking for power in the hit, with the movement starting from the elbow first, at the highest point of the bounce, and followed by a quick "whiplash" movement of the arm.
- **Block**:
  - Stabilizing the abilities to analyze situations:
    - With/without a block – observing the opponent's game.
    - Where is the blockage? – Determination of the bounce location.

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- When the competitor is active above the net with the hands – rebound time.

- Transverse-step movement technique (loss and recovery of frontal view relative to the net)

- **Defense** (situational technique of defense with two hands underarm):
  - Entering from different positions and defense formations.
  - Defensive pace on the ball.

- **Serve**:
  - Pay attention to hitting the ball – It must float.
  - For players with a good ground hit – learning the bounce float technique.

The game system is suitable for the age group up to 14 years foresees the use of a 4-2 system of play with specialized posts:

- The first line distributor positions him in zone 3, thus being able to lift forward and backward – attack the entire length of the net.
- The second line distributor plays in zone 6 to increase the chances of picking up the ball for a counter attack.
- It is also possible for distributors to play zone 1 if there is effective use of zone 6 attack.

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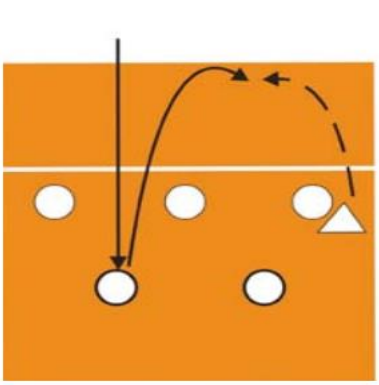
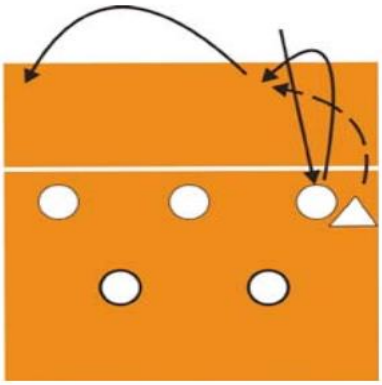
IMPORTANT!

- Not to specialize players in defensive areas – It is desirable that training for a defensive system shall create opportunities to accumulate a wide range of situational skills in all areas of the playing field.
- Ability to use a 4-2 system of play with a distributor who enters from the second line.
- It is desirable that the receiver system **is not specialized**, but with 4 or 5 receivers.



D 7: Easy for Setter



D 8: Difficult for Setter

- In general, the level of specialization in the training process should be low. Except for players who have a good overhead and underarm serve.
- Methodological guidelines for individual work with setters:
  - Looking for a neutral approach when touching the ball;
  - Search for autonomy in the action of the hands on the ball;
  - Introduction of bounce serve.
- Methodical guidelines for individual receive work for those who have a good underarm serve and are related to the application in training of different types of serve in order to create adaptation models of the receive technique.

- For girls up to 14 years old:
  - Assessing the propensity to accurately execute the single leg dunk technique.
  - Learning the speed-up technique for single leg dunks (unfinalized) - movement motor skills.
  - Body control in the air – basic elements of hitting a first pace ball (Fast and Slide) entering the next age group.

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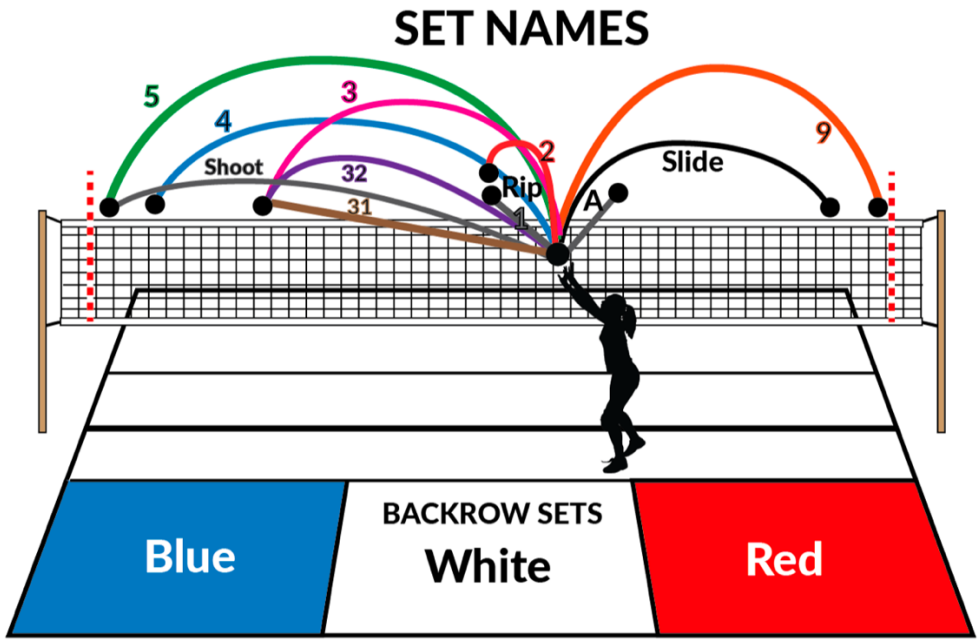

➢ **Physical abilities in the age group up to 14 years old:**

- Lower extremity reactivity is an important characteristic of the motor system, which naturally lacks strength and relative strength (the ratio of maximal strength to body weight).
- Flexibility in the ankle ensures good control during technical gestures requiring squats and lunges.

➢ **Technical abilities in the age group up to 14 years old:**

- Expectations are to improve the feel for the ball expressed in two-handed overhead passes (lift) – depth of ball entering the hands through loading the wrists and a high number of effective attempts with good trajectory are indicators of "good hands".
- The feel for the ball on the pass from underarm expressed through the relationship between the orientation of the body position towards the target and the ball leaving the hands.
- Power and control of the dunk hit – related to the speed of the movement of the striking hand. This aspect makes it possible to distinguish between players who have control over hitting the ball and those who have a tendency to develop power and height of the hit.
- It is important to monitor the quality of the execution of the individual phases of the movement.

➢ **Tactical behaviour of volleyball players under 14 years old**

In this phase, tactical behaviour is characterized by the expression of personality, but it is already oriented towards the needs of confrontation with the opponent. Therefore, the training process must create prerequisites for building unpredictability towards the opponent and "reading" his game behaviour:

- Personality expression is identified in the ability to make actions unpredictable to the opponent through a greater number of available execution techniques.
- The development of individual tactical actions is achieved in a 1/1 competition.

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Summary table for guidelines for working with children up to 14 years old

	Up to 14 years old
Main goal	Adapting technical skills to the dynamics of the game
Methodological goal	Development of a positive skill peak
Techniques and elements in the didactic program	Pass up – meet – normal ball attack – block – defence – float and bounce float
Game system	4-2 system with no defensive specialization
Basic forms of motor skills	Motor differentiation capacity. Dynamic rebound capacity. One leg jump. Ankle reactivity
Reliability of technical skills	Second pass quality – Catch quality – Dunk power (hand speed)
Specialization	Low – Individual work with distributors and receiver
Tactic behaviour	A display of personality against an opponent. Tactical thinking capacity when playing 1/1

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- CHAPTER 06 -

PLANNING AND IMPLEMENTATION OF THE TRAINING PROCESS

"Train like it's a competition and compete like it's just another day of training"

- KARCH KIRALY -

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- CHAPTER 06 -

PLANNING AND IMPLEMENTATION OF THE TRAINING PROCESS

A training process related to the basic techniques in adolescents

The definition of "**basic techniques**" means those technical skills that all volleyball players must know in an adequate way and that allow them to play regardless of the specialization in a given playing position. These are techniques of movement in game situations, serve technique (float), passing from overhead, and from underarm, dribbling technique and blocking technique.

Game moves

Movement dynamics is extremely important because it expresses the preparation for the technical grip (the way a certain element should be played), determines the quality and efficiency of the touch on the ball and creates habits of "anticipation" in different situations. Through the movements, the player **controls the frontal position** in relation to a certain landmark in the individual phases of the game. The optimal training development for controlling the frontal position is achieved with the following methodical steps:

- Movements that maintain frontality in relation to the trajectory of the ball (when meeting and playing in defense).
- Controlled position moves – loss of frontal position (in cross-step to block and shift moves to attack) and also the recovery in the technical time of the game situation.
- Technical moves are related to the speed of the ball and depend on the motility of execution (e.g. when spiking according to the height of the ball to the attacker).
- Movements suitable for certain situations, performed with correct technical positioning. These movements are associated with patterns of technical imitation (e.g. movement when meeting a short ball, stepping forward instead of crouching).

Overhead front serve

The main goal of the serve training is to teach the correct ball strike that will create a floating ball trajectory. Therefore, the methodological steps are as follows:

- Throwing the ball must be in front of the hitting hand.
- Hit the ball in front of the axis of the body.
- Eliminating the spin trajectory by tightening the fingers, palm and wrist of the hitting hand.
- Acceleration of the movement, without stopping the arm at the moment of impact and stopping the arm after the impact or bringing it back – these two aspects are very important for the prevention of shoulder joint in adolescents.

Overhead front serve with a "float" bounce

Teaching the technique of the float serve with a bounce begins when the young player has mastered the ball strike in the overhead front serve from the ground.

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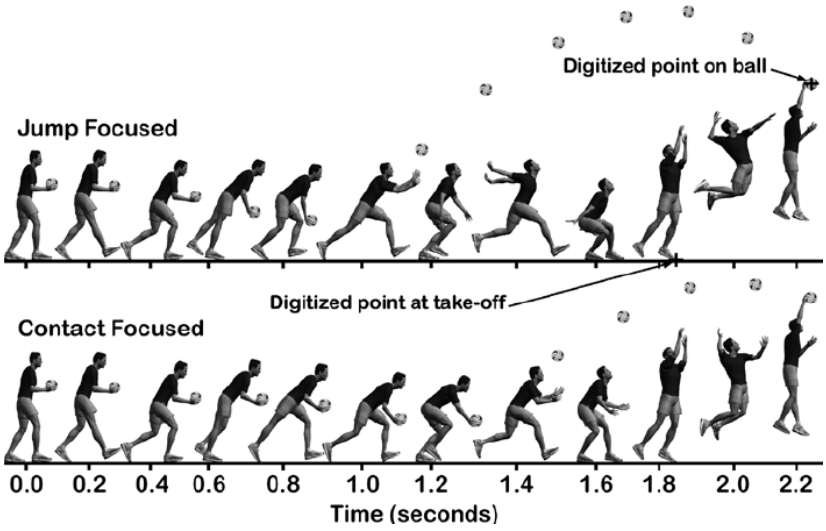
- Timing and accuracy of throwing the ball become the main priority in relation to step-ups. Throwing is made at the moment of the second step of the boost (provided the boost is three steps).
- There are two different techniques depending on the time of the toss and the height of the tossed ball.



Two-handed overhead pass

Teaching the two-handed overhead pass is fundamental for children because through it they begin to learn the mechanics of the volleyball game. The main focus is on adequate and precise interaction between the axis of the body and the ball. Teaching didactics should cover the following aspects:

- ***The position of the hands:***
  - The fingers are open and symmetrical when touching the ball;
  - The hands are slightly bent at the elbows, close to the body, with the fingers preparing to wrap the ball (entering the ball in the hands);
  - There must be a differentiation of forces according to the trajectory, length and direction of movement of the ball (forward or backward). We cannot serve at different distances with the same force.
- ***Quality of touch on the ball in overhead pass:***
  - Movement of the wrists with finishing effort falling mainly on the index fingers and thumbs;
  - The speed of the movement of the wrists is always dominant over the effort exerted by the extension of the elbows – an aspect that affects the immediate contact of the ball and the symmetry of the hands.
- ***Distance control in overhead pass***:
  - *Differentiated* effort made with lower and upper limbs when passing a high ball or from a long distance;
  - Pass after move requires frontal to the target.
- ***Exercises for transition to a game situation:***
  - Two-handed overhead attack pass, two-handed free-ball overhead pass, two-handed overhead receiving.

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Two handed underarm pass

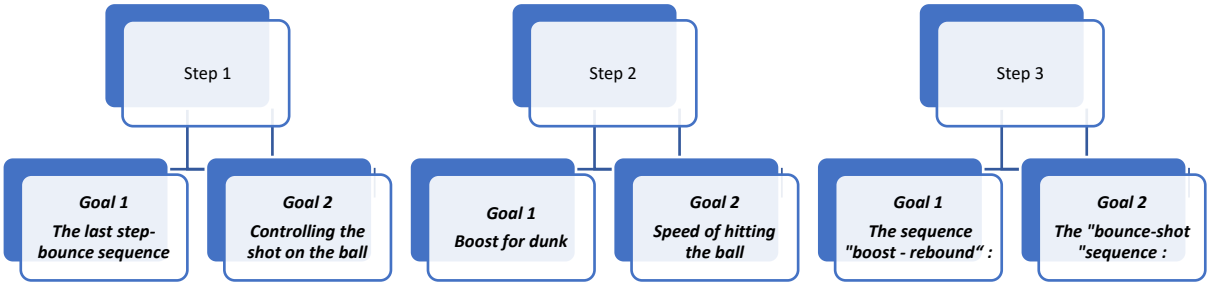
Training in the two-handed underhand pass is critical as ball speed increases. This is a technique that allows for a wide plane of delivery (range of action) while maintaining the efficiency of the movement. In addition, the underpass is the most used technique in defense, reception and is important in the second pass for offense. Teaching didactics contains the following aspects:

- **Placing the striking plane "platform":**
  - The position of the shoulders determine the orientation of the hands;
  - The position and tension of the elbows determine the width and compactness of the hitting plane;
  - The grip of the hands and the forward and downward pressure of the thumbs determine the stability of the hands.
- **The quality of the bottom feed depends on:**
  - The time of contact with the ball (the shot may be "clipped");
  - The orientation of the pass with eye contact to the target;
  - Activity of the hands in relation to the ball (to "attack" the ball).
- **Controlling the trajectories** of the serve with two hands underarm (e.g. when picking up a second ball);
- **Controlling the distance from the target** by additional effort of the lower limbs:
  - From different leg supports – from a position where the legs are parallel and spread apart and from a position where one leg is out in front of the other.
  - Underarm pass after different types of movement:
    - front pass and side pass
    - after jumping movement, after attacking forward or to the sides.
- **Training for transition to game situations**:
  - Training for receive, defense, free-ball passing, picking up a second ball by two hands underarms;
  - Stabilization of the orientation of the pass to the target (hands and effort from lower limbs);
  - Various games with submission conditions underarm.

Dunk

Dunk training requires a more complex didactic progression, as this element unites the dynamics of the lower limbs and upper limbs in **one tempo** determined by the trajectory of the lifted ball. To obtain this synchrony requires the acquisition of a motor sequence, a perfectly automated motor sequence. The learning strategy has three main steps, each of which must achieve two goals.

Didactic progression in dunk training



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The first didactic step has the following content:

Goal 1 - The Last Step-Rebound Sequence

- Setting the optimal constant acceleration pace of the last step.

  The less developed the strength of the lower limbs, the shorter the time of the last step should be.

- Exercises to learn the entire sequence of steps of dunk speed-up such as:
  - Dunk steps advance the **center of gravity**;
  - Accompanying action of the arm wave.

Goal 2 - Control of the ball hit.

- **Interaction with the ball:**
  - The ball must be at the level of the hitting hand.
  - The hit must be made in front of the axis of the body (allows eye contact and "bounce" of the ball, which gives more power to the hit);
  - When hitting the ball, the arm is extended, **the hitting shoulder is higher**.
- **Action of the hand:**
  - The ball is hit with a palm that "covers" the ball;
  - Targeting the hit while maintaining elbow height and whiplash on the ball.

The second didactic step has the following content:

Goal 1 –Boost for a dunk:

- Stride cadence exercises emphasizing reaching optimal acceleration in the final phase;
- Exercises that help the pressure of the lower limbs on the floor with the aim of rebound height;
- Building optimal second step amplitude and correct leg adduction before the bounce.

Goal 2 - Ball Strike Speed:

- Factors determining the power and height of the impact are:
  - Bringing the shoulder back – it must be done before reaching the maximum point of the bounce. When the rebound phase is completed, the rotation and abduction phase must also be completed at the same time. This action requires control of the body in the air;
  - Training to master the maximum **speed of the hand movement** and whipping the ball. The wrist action should be quick and wrapping around the ball.

The third didactic step has the following content:

Goal 1 – The Boost-Rebound Sequence:

- Speed of performing the steps;
- Elimination of parasitic movements or lack of correct hand movements;
- Control of vertical rebound;
- Bringing the hands into position relative to the last attack step. The hands prepare to strike the ball before the toes leave the ground.

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Goal 2 – The bounce-shot sequence:

- The shot of the ball must begin while reaching the maximum bounce point;
- Adaptation of the impact time (timing) to different types of balls when dunking:
  - Adaptation to imprecisely lifted balls;
  - Tactical adaptation to the types of balls, which is characterized by adjusting the time of the impact and the point of interaction with the ball in relation to the direction of the dunk;
  - Development of control over the ball shot, which provides a prerequisite for creating a wide range of technical skills in attack (https://youtu.be/w6IevIgUfxY) .

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- CHAPTER 07 -

PROFILE OF THE COACH FOR ADOLESCENT VOLLEYBALL PLAYERS

"Basically, my work philosophy has always been the same. It's a mix of training and giving the player all the tools he needs."

- GIOVANNI GUIDETTI-

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- CHAPTER 7 –

PROFILE OF THE COACH FOR ADOLESCENT VOLLEYBALL PLAYERS

The role of the coach is essential for the development of volleyball in every club. Defining the principles of his work, in turn, is decisive for the development of the technical and tactical skills of all players and the team as a whole. The dynamics of game development require coaches to:

- Define the rules (it's good if there aren't many), which must always be followed and not contradict the rules of the club.
- Use communication and dialogue in the development of the coach-players relationship.
- Use incentives, punishments or disciplinary measures that are well justified – all team members must be informed of what is happening because an individual problem affects the whole team.
- Stimulate and reward, highlighting correct behaviour and diligence, which should be an example for everyone – diligence and persistence should be the rule, not the exception.

- Always manage the team, following the concept that "the group helps itself from within" – we find the solutions to problems "within us", changing attitudes, behaviour, and acting with tolerance and respect for others.
- Controls the behaviour of more violent and grumpy children and encourages the more shy ones.
- Control monotony – many of the exercises in the training process of these age groups are monotonous, so it is important to stimulate and motivate children to do better through challenges, setting goals (to do something more difficult or consistently – hit , movement, number) and educating them not to be satisfied with their own limits.
- They subject their own work to critical analysis – to demand it first of all from themselves, if they demand it from the children. "Why is it not improving?", "What can be done to make this happen?" - These are questions that concern all those working with adolescents.
- They know that the coach's personality creates the model, which the athletes then perceive as a role model – If he is late for training the children shall consider it normal to do so too.
- Earn the respect of athletes by their behaviour, not by seeking friendships – less talk and meetings, more work!
- They avoid instilling in the players a fear of the mistake in training and even more so during a match – it is part of the game, an "annoying fly" that settles whenever there is no concentration.

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- *Boys and girls are in constant search of role models, and the coach, whether he likes it or not, finds himself in this role, which he must accept responsibly.*

The emotion of coach and player is mutual!

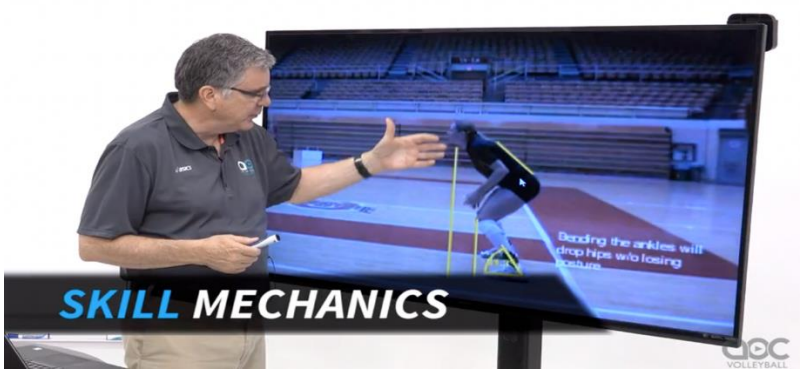
Main aspects that the coach must distinguish between young and professional volleyball players

There are several important differences in the behaviour for youth and professional players:

Youth athlete	Professional athlete
The young athlete learns and consolidates certain technical gestures to solve the game problem.	The professional athlete strives to be immediately effective, through the use of rational and pragmatic mechanisms acquired as a result of numerous repetitions and experience.
The young athlete is motivated by the conscious acquisition of specific skills.	The professional athlete is motivated to turn effort into result.
The young athlete is inconsistent in his performance in every aspect as he is oriented towards the learning process.	The professional athlete is result oriented.

The profile of the coach in the children's and youth sector can be summarized in the following points:

- Must be able to make the young athlete self-reliant.
- There should be an individual approach for more effective training.
- Must ensure a continuous process for acquiring specific skills.
- Must correct both technical and tactical, and aspects of the behaviour.



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The coach in the children's and youth sector must **know well the techniques that make up the volleyball elements**, as well as the methodical strategies of teaching and correcting them.

ASPECTS OF SPECIFIC COMPETENCE OF THE COACH IN CHILDREN'S AND ADOLESCENT TEAMS

It is important to pay attention to the methodological connection between the goals of the training process and the motivational mechanisms in adolescents compared to the technical and tactical guidelines in training.

Age group below 12 years old

In this first part of the formation of the athletes, it is important that the coach strives, through the training process, to increase the number of positive performances of the technical skill. The main concept is POSITIVITY – for the child to say to himself "I did it too", "now I can do it too", "it's not that difficult", "it's a lot of fun", and "can I try again". With this in mind, the structuring of the training process should pursue the following goals:

- For children to acquire a positive sense of progress and coping in the short-term training cycle – In the single training session or in the weekly work cycle. The focus of training should be on positive performances of technical skill. The perception of success in learning among young people generates a motivational stimulus and a desire to further improve technical skills.
- The acquisition of specific skills is built through a balance between positive and negative experience gained in the game – children realize that they need technical skills to successfully solve game situations and limit mistakes.

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The main content of the technique training system should include:

- Motor analysis of technical elements and a programmed approach to their development through analytical, synthetic and global exercises in a simplified form of both performance and game dynamics.
- Synthesis exercises should have few variable situations. It is important that the focus is on a specific technical action. **An important condition is the speed of the ball, which must be gradually increased!**
- The game occupies an important place in the training cycle. The main goal is the technical performance of the movements. Game systems should be simple and not engage children's attention. Games can be from 1/1 to 6/6.

Age group below 14 years old

Young athletes acquire a specific independent form of perception of POSITIVITY. The child must say to himself "I can do it now", "I know how to do it", "I did that too", and "I got it a number of times out of 10 attempts". In this age group the goals are:

- For young players to begin to realize the effectiveness of using the technical elements in a game:
  - to identify personal mistakes versus the mistakes of others.
  - to identify their own advantages and disadvantages compared to those of the opposing team.
  - laying a stable foundation for correctness in the execution of the elements, by increasing the volume of repetitions of various technical and game situations.

It is important to have short and clear goals with lots of repetition!

The training system is based on the following principles:

- analyzing the movements during the execution of the technical elements and planning the program by introducing exercises for synthesis and in a global form (under facilitated execution conditions) - a large volume with few variable situations. The dynamics of performance of technical elements should be the one with which they are performed in a game.
  - Synthesis exercises are characterized by a focus on the correct technical execution with the correct dynamics in different situations of the game. The complexity or changes in the

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exercises should be such that they do not compromise the technique and time of the element.

- In the global exercises (6/6 with a technical-tactical goal) the game system should be simplified so that the attention of the young players can be focused on the choice of tactical solutions - for example, when attacking an inconvenient ball from 4 to let behind the block.

- Identifying the "good" errors that arise from tactical decisions or an attempt to perform a technical element well that led to an error – for example, when we have built a good block, but the ball hits the players' hands in such a way that it ends up in a block out, and the "bad" mistakes that "shouldn't be made" because they are not provoked by the dynamics of the game – e.g. attempting a one-handed block.

Age group below 16 years old

Young players begin to feel the specific positivity of the evaluation and competence characterizing the position they play. Their thinking is already selective and differentiates the training from the action itself – for the children to say to themselves "I'm starting to get better at this ball".

This is the age at which the effective process of specialization can be reliably and predictably identified. This means that this age stage is important for evaluating the performance of basic technical elements and their use in a game. Prospective candidates for a certain post are already available here.

The main content of the training system should contain the following:

- Recognition of individual motor tendencies in the technical execution of the elements during the game and during training
- Focusing attention on the attitude of the young player to play a certain position.
- Differentiated work, strategy and approach to specialization to help the player understand the technical, methodological and emotional importance of the game post.
- Recognizing technical strengths (object of constant programmed work) and weaknesses (aspect on which young players should work to improve).

Even at an older age, the concept of the training process is based on **POSITIVE DEVELOPMENT OF COMPETITORS' STRENGTHS!**

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- At this age, there are already young players who demonstrate character and quality play. For these players, the focus should be on improving their performance in the game.
- Potential development of ability to take responsibility and make decisions during play.
- When training on the weak technical side of an element, the focus should be on improving one aspect of it and limiting errors during play. This allows the development of a motivational boost in terms of personal contribution to the achievement of a positive result (individual and for the team).

The training system contains the following principles:

- Analytical training – technique development based on different variations of game situations.
- Synthesized exercises – differentiation of work in the two phases of the game (side-out and break-point), and it must be observed that the time of the technical execution is at the level of its execution during a competition.
- Global exercises 6/6 – focused primarily on the development of tactical goals and their realization through the available set of technical skills:
  - Stabilizing the best indicators of the players' strengths expressed in their best performance.
  - Controlling the performance by reducing errors in terms of the complexity of the action – especially for players with more developed technical skills.

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- CHAPTER 08 -

SPECIFICITY OF THE TECHNIQUE IN THE DIFFERENT GAME POSTS

"There may be people who have more talent than you, but there is no excuse for someone to work harder than you!"

- DEREK JETER-

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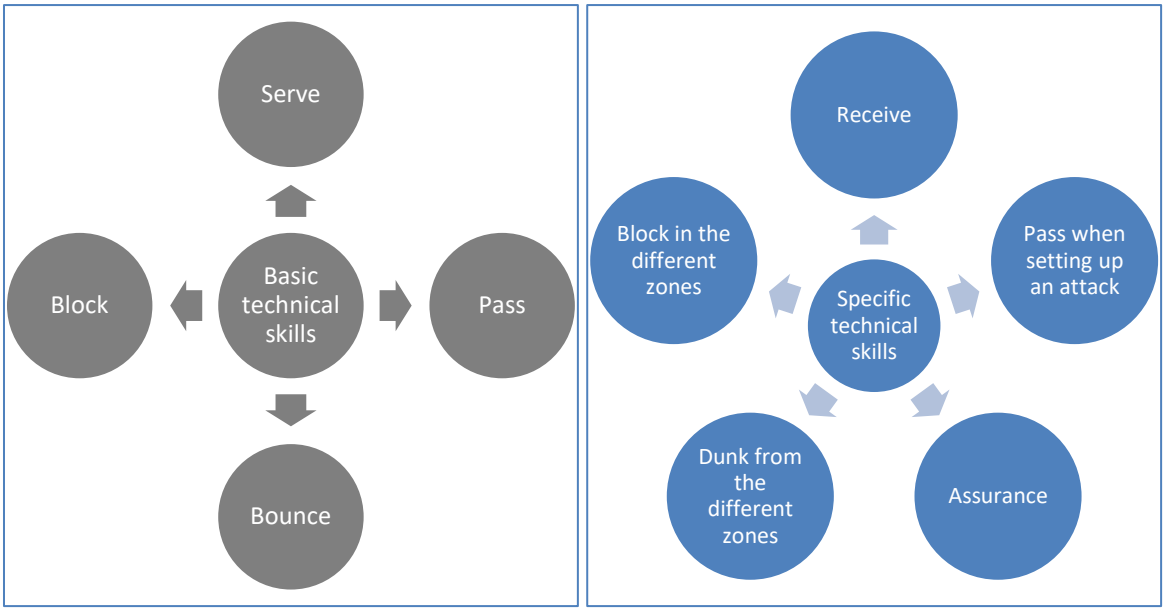
- CHAPTER 8 –

SPECIFICITY OF THE TECHNIQUE IN THE DIFFERENT GAME POSTS

The definition "specific technical skills" means the techniques that characterize the individual game roles or competences during the game. Some of them are a feature of certain posts – e.g. the dunk, which is interpreted differently by wingers and center forwards. Other techniques such as serving, defending, lifting a high ball are elements that all players must master and perfect.



Serve Specificity

To develop **a float serve** according to individual inclinations and the level of ball control, the following methodical steps must be followed:

- In a float serve from the ground at close distance from the end line:
  - Hitting the ball must be ***controlled*** when ***the target is a small playing area***.
  - Hitting the ball must be **sharp and quick** when directed at a **large playing area**.
- In a float serve from the ground at a great distance from the end line, the objective is either a direct point or the difficulty for the opponent's attack:
  - A sharp, quick hit on the ball and a **high trajectory** when the target is a **large playing area.**
- The jump float serve technique provides for the following methodical progression:
  - Stabilization of the time of tossing the ball (with one or two hands) – timing;
  - Determining the effective strengthening technique according to the individual characteristics of each athlete – with one or two legs, with a hand pre-prepared to hit or with a wave of the arm;
  - Hit height search with a sharp and fast trajectory.
- Jump serve execution technique:
  - Stabilization of the trajectory of throwing the ball (direction, distance and height);
  - Control of hitting the ball without a jump – Interaction between the ball and the hitting arm and the point of impact and the axis of the body;

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- Impact power and height;
- Ability to target the hit.

Volume of game situations

Performance technique

Tactical decisions

Development of the Setter

Means of building game situations by the setters

- Synthesis exercises that must solve the following methodological tasks:
  - Adequate positioning at the net – quickness of the lower limbs.
  - Approach to the ball trajectory after receive:
    - Identifying situations with a first pace opportunity – low, sharp ball and dunk from one foot.
    - Maintaining a frontal position in a possible high ball pass.
- Management of the play system in attack – determining the basic tactical schemes in attack in each rotation.
- 1v1 exercise between the setter and the opposite team center on a block – mainly to develop tactical decisions.

Specificity of the second pass in ball situations, outside the third meter (after a receiving or in a counterattack)

The second pass of the ball outside the third meter in order to build the attack **is not only a priority of the setters.** It must be mastered by all other game posts. Execution techniques include both a two-handed overhead pass and an underhand pass.

In training for passing balls "removed" from 3 meters, it is necessary to apply "situational methodology", which should contain the three main components – ***performance technique, volume of game situations and game with a tactical focus.***

- ***Performance technique:***

- Movement and positioning under the ball – correct body position.
- Purpose of the pass:
  - Frontal position to the target;
  - Perception (sense) of the distance from the target – coordination of effort from the lower and upper limbs in the pass;

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- Precision in the execution – setting the exact parameters of precision when passing a high ball in zone 2 and 4 – e.g. the ball is high, falls inside the court and is close to the net.

- Passing drills in different game situations should be structured as follows:
  - Central blockers primarily pass the ball frontally in front of them;
  - Liberos and zone 6 defenders primarily serve two-handed overhand balls up to six meters and two-handed underarm balls beyond six meters.

In principle, making tactical decisions when passing a high ball can depend on the following criteria:

- Passing the ball to the strongest attacker;
- Free tactical choice, but with maximum precision – most accurate passing;
- Passing to the attacker most ready to attack depending on the game situation (e.g. if an attacker has fallen to the ground after defending is not a good option).

Specifics of receiving serve float from the ground and with rebound

The didactic progression of the specialization of the receiving players requires a differentiated technical approach to the specifics of the serve. Trainings for meeting serve float and rebound float should offer coverage of three important aspects:

- **First**: the basic techniques in meeting the ball that the great competitors use. These are:
  - With a frontal two-handed underarm pass – when the trajectory of the ball comes centrally to the body
  - Side pass – medium and low – this technique is applied when the trajectory of the ball is outside the body
  - Lateral pass – high – In situations requiring a quick exit of the body from the trajectory of the ball.
- **Second**: the use of the hands in controlling the ball:
  - Shoulders together, oriented towards the target.
  - Supination at the elbows (extra rotation) which gives width to the striking surface and maximum extension to ensure compactness of the hands.
  - Stable hand grip.

- **Third:** the specificity in the movement of the lower limbs:
  - The movement of the feet precedes the contact of the ball with the hands.
  - At the moment of contact with the ball with the hands, the feet should be fixed.
  - At this moment, the visual focus changes – from the incoming ball to the passing target.

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- **Fourth:** the different situations when meeting and adjusting the position in relation to them:
  - Meeting a short serve – with a front attack and putting the knee on the floor (for girls) or with a jumping step (shuffle step) forward.
  - Meeting a serve outside the body (left or right) – with a side attack or a side shuffle step.
  - Meeting a long serve (side and high) – In a position where the center of gravity shifts to one leg, with a jumping-extra step (for girls), with two hands overhead.

When meeting a serve with a bounce, the techniques used by the great players are:

- The initial position of the legs are more open compared to the meeting of the float serve;
- Frontal passing and control of the ball with the hands;
- Side pass (with and without landing). It is a movement controlled by the lower limbs to create or take away from the pressure on the ball depending on the situation;
- In the case of a tactically short placed serve with a bounce, it is met with a forward attack, two steps or with a landing;
- Shoulders are gathered and oriented towards the target, hand grip should be stable.

"**Anticipation**" of the trajectory of the incoming ball is an aspect that imposes the following guidelines in the work:

- Stabilizing the relationship between the axis of the body and the trajectory of the incoming ball:
  - By correctly positioning the body spatially to perform a certain technical gesture (e.g. under the ball when passing from above, behind the ball when passing from below). Young athletes base the spatial orientation through the eyes and the relationship the eyes establish with an object, in this case with the ball.
- Adapting the height of the center of gravity, the pelvis to the height at which contact with the ball occurs:
  - Ball contact techniques (from stance, with movement and with landing) involve adapting the center of gravity in the approach to play the ball (e.g. starting from a low volleyball stance, or lowering the center of gravity in the last steps before hitting the ball the ball).
  - A ball that comes with a sharper trajectory (defense, reception and situations requiring short movements). **Maintaining a frontal position of the body in relation to the incoming ball.**
  - A ball that comes with a slower trajectory from a long position (defence, pick-up after defense and long drive situations). Mastering the movement with running and

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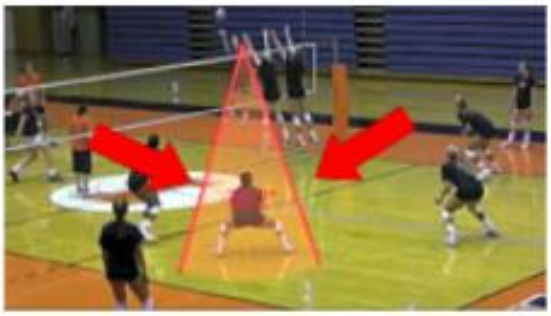
subsequent steps, allowing orientation of the body to the target to which the ball is to be passed.

Specificity of the technique in defense

Defense is an element strongly related to the skill of "feel" for the ball and "anticipation/reading" of the situation. As it is through it that the construction of the counterattack begins, it is important to understand that no matter what technique is used, control of the ball is most important Therefore, during the protection work several aspects should be taken into account with the following methodological priorities:

- **The first aspect is the reference points (what to look for) in defensive positioning:**
  - ***First*** – Monitoring the quality of the opposing team's first serve;
  - ***Second*** – Observing the behaviour of the opposing distributor and the quality of the trajectory of the ball.
  - ***Third*** – Observing the opposing attacker:
    - Direction of speed-up and direction of the body on the last bounce step (this will be the direction of the hard hit ball);
    - The attacker's balance in the air – Indicates the ability to control the hit;
    - Attacker's hand – main indicator of timing in defense and decision on defensive action (anticipation).



- **The second aspect is control of the defensive position and approach to the ball:**
  - On a high ball, feet slightly **more together**, knees forward, "ankles locked" and shoulders in front of the body;
  - On fastballs (on a single or on a broken double block) feet slightly **more open**, knees forward, "ankles locked" and shoulders behind the body.
- **The third aspect is the development of ball control:**
  - The connection between the ball and the body;
  - Timing of the defense (the time of compression of the lower limbs, which must precede the attacking hit);
  - Adaptation of body posture in defensive situations:
    - ***Ankles*** – ankle "lock" – a position where the knee is in front of the toes and the feet remain active.
    - ***The body*** – a position that allows for the possibility of applying various protective grips.
    - ***The hands*** – free from each other (autonomy), allowing intervention in relation to the different trajectories of the ball.

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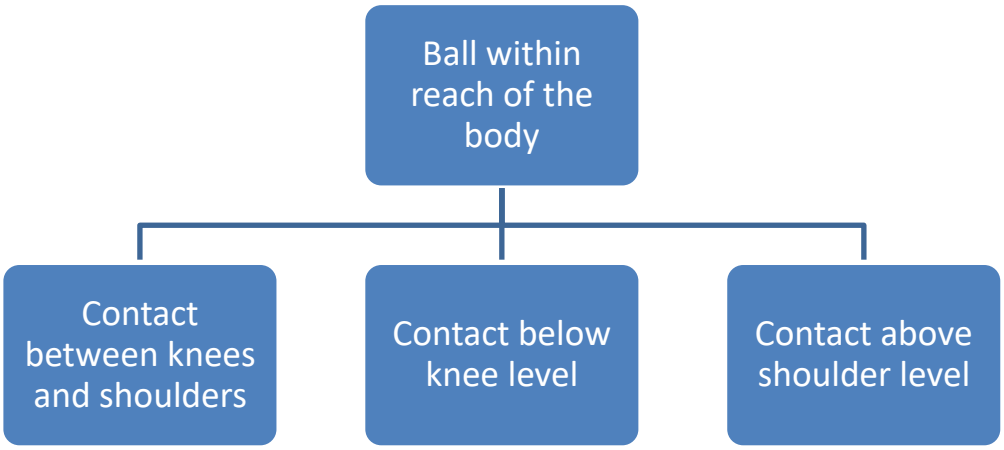
- Control of the ball in situations that guarantee accuracy of passing (e.g. free-ball, ball deflected off the block, slightly transferred wrist shot).
- Control of the ball in situations where the opportunity for a second pass is limited (e.g. a strong attack in the body, a long shot or a ball bounced off a block or defence).

Basic defensive techniques can be classified according to the point of contact with the ball. In this sense, we can indicate the following scheme as an orientation at the methodological level:



Defending a ball **within body reach**:

- Point of contact with the ball between the knees and shoulders;
- Contact with the ball below the level of the knees;
- Contact with the ball above shoulder level.

Defending a ball **out of reach of** the body:

- In these cases, it is important to move the body towards the ball and maintain the body-ball connection, not the hands-ball connection.

Timing of the defensive stance and the related body position in relation to the different game situations:

- Timing of defense after moving back, that is, moving away from the attacker /as happens in situations of defense on the right after a position to defend the first pace/. What is specific about this stance is the pressure on the ankles and the position of the body.
- Timing of defense after moving forward, that is, approaching the attacker /when taking a defensive position in a situation of broken blockade/. The goal in taking this stance is again pressure on the ankles and readiness to react to the different trajectories of the ball relative to the body.
- Timing of protection after lateral movement – in these situations, the methodological guidelines described above apply, and the main thing remains the compression on the ankle joints.

The physical prerequisites of the technique in landing defense (plunge or side landing) and two-handed overhead defense are:

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- The reaction of the lower limbs and the movement of the body depending on the trajectory of the incoming ball;
- Independence of the hands in searching for the ball and controlling the execution of the movement.

Specifics when developing a Blockade

Blocking is an element that coaches often say aims to define technique, emphasizing the influence of game dynamics on the technical execution of moves.

Therefore, the important methodological guidelines are towards the sensory perception of the game situation, the time of movement, the preparation for playing with the ball, the rebound and the transfer of the hands to the opponent's court.

- Determination of the **initial position** of the blockade relative to the network aims to:
  - Facilitating the observation of the opponent's first serve;
  - The correct distance from the net, which will facilitate movement and at the same time preserve the "aggressiveness" of the blockade.
  - To determine the distance from the possible bounce points (strengthening for the first pace of the central blockers).
  - Management of situations where help is needed from end blockers.
- Determination of the **way of movement** and concentration of attention on the following aspects:
  - In the technique of moving with side shuffle steps, the attention is directed to preserving the frontalness in relation to the net;
  - In the technique of moving with a crossed step, it is necessary to observe the adequate technical execution time (the trajectory and speed of the raised ball), the height and aggressiveness of the hands, according to the qualities of the opposing attacker;
  - Maintaining the body-ball connection, not the hands-ball, that is, through the movement technique, to look for the positioning of the body against the ball, and not to look for the ball with the hands;
  - The specific combinations of movement techniques in the different areas of blocking provide for:
    - To have a quick execution of the entire movement - preparation, movement, rebound;
    - The placement of the feet on the last bounce step must be ahead of the center of gravity in order for a vertical bounce to take place;

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- Restoring frontality on the last bounce step (by orienting the inside foot to the net) on long moves.

➢ Important consistent starting points (**what we are looking at**) of positioning and rebounding when blocking:

1. Observing the quality of the opponent's first touch;
2. Observing the behaviour of the opposing distributor – reading the position of the hands and predicting the direction of lifting;
3. Observation of the quality of the trajectory of the ball passed to the attacker;
4. Observation of the opposing attacker and in particular:
   - The direction of the speed-up and the directionality of the last step (indicator of the direction of the strong attack).
   - Attacker's hitting hand (block bounce time indicator).
5. Choosing the timing of the bounce (When do we jump?):
   - The block rebound must be after the opposing attacker's rebound.
   - Useful criteria for determining bounce time:
     - ✓ Delay with a tactical purpose by means of a marked countermovement of the lower limbs (crouching).
     - ✓ Overtaking – when rebounding together with the opposing attacker.

The technique of placing the hands in a blockade (How do we block?) provides for:

- The hands should always be in front of the axis of the body – aggressiveness of the blockade.
- The fingers of the hands should be spread wide – the useful surface (area) of the blockade.
- Having the elbows in maximum extension is decisive for the stability of the blocking surface.
- The extension and closure of the shoulders determine the compactness of the block.

Blockade against different game posts and game situations

The analysis of blocking techniques in relation to different playing positions and different playing situations contains the following aspects:

- Positioning of the body to ensure maximum speed of movement on the net:
  - The position of the legs is with the feet shoulder-width apart, slightly bent at the knee joint, to allow a dynamic approach when moving;
  - The weight of the body is evenly distributed on both legs in order to avoid countermovement when starting;
  - Hand position – In front of the body in anticipation of a first pace attack or to move into the other blocking zones.
- Movement and techniques must be subordinated to tactical objectives and tasks;
- The time of the rebound counteraction of the blockade against the opposing attacker;

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Specifics in dunk

Dunk in phase side-out (after reception)

Dunk in this phase is a system organized by the setter as:

- The type of ball to the attacker is determined by the setter;
- The attacker determines a possible change of the ball according to the situation.

Situations where the attacker does not participate in the reception have the following priorities:

- Preliminary approach to the dunking zone and direction of speed-up (determining the trajectory of the power dunk);
- Search for adequate technical timing of the situation, optimal rebound point, frontality of the last step to the ball and the tactical goal in the attack.

Situations where the attacker meets the serve first shall have the following requirements:

- Approach to the starting point of the speed-up - maximally economical and according to the trajectory of the received ball;
- Variability and differentiation of the different dunk steps to the meeting situation, looking for frontal to the attack zone in the last step.

Regardless of game situations, the performance **motor skills** must adhere to the following requirements:

- Acceleration during the execution of the dunk steps, being maximal in the last phase of placing the feet before the rebound;
- Ability to modify the position of the last additional step with a view to accurate positioning under the ball;
- Ability to bounce optimally under the ball.

Technical guidelines for dunking:

- Search for the optimal rebound, height and maximum speed of the hit (for players in initial training and in the improvement phase);

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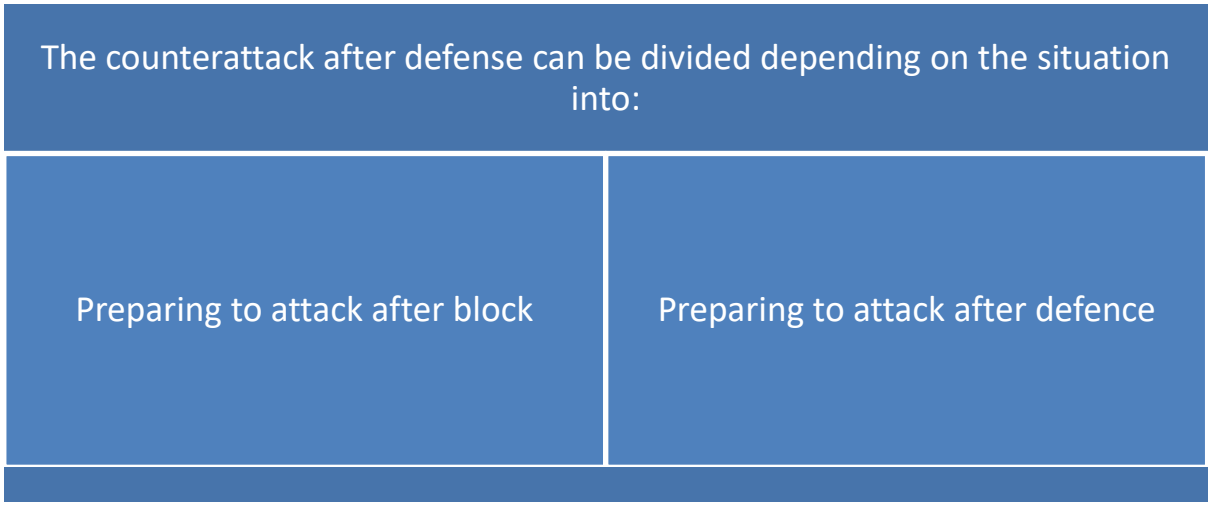
- Search for optimal bounce and height with hit selection – reducing the power of the hit at the expense of hitting the ball with precision (for players in the specialization phase).

Dunk in the counterattack phase (breakpoint)

The counterattack consists of a system of play organized on the basis of the possibilities offered by the situation. The type of dunk is determined by the attackers. Finding the adequate distance from the net, suitable for speed-up and visual contact with the ball are the main aspects that must be constantly considered in the training process.

The counter-attack after the free-ball can be pre-defined because it allows situational advantage and optimal possession of attacking positions.

The counter-attack after defense can be divided depending on the situation into:



In both game situations, the following aspects need to be taken into account:

- The technique of withdrawing from a blockade and exiting a defensive position as basic preparatory movements;
- Opening to the playing field after blocking;
- Synchronization of the time of speed-up and rebound according to the type of the passed ball;
- Determining and automating the departure time of a high ball.

The demands on movement motility and technical and tactical aspects of the dunk remain the same as when dunking after receiving a serve.

Specificity when dunking a low ball (first pace) and attacking with one foot (fast)

Preparing the starting point of speeding-up is the first aspect of properly placed training. The start of the speeding-up for a low ball dunk is important to achieving the primary goal of this offensive technique – anticipation/reading. Therefore, it is necessary to pay attention to the first pace study approach:

- The priority is to find the right distance from the network, which allows the efficiency of the speed-up.

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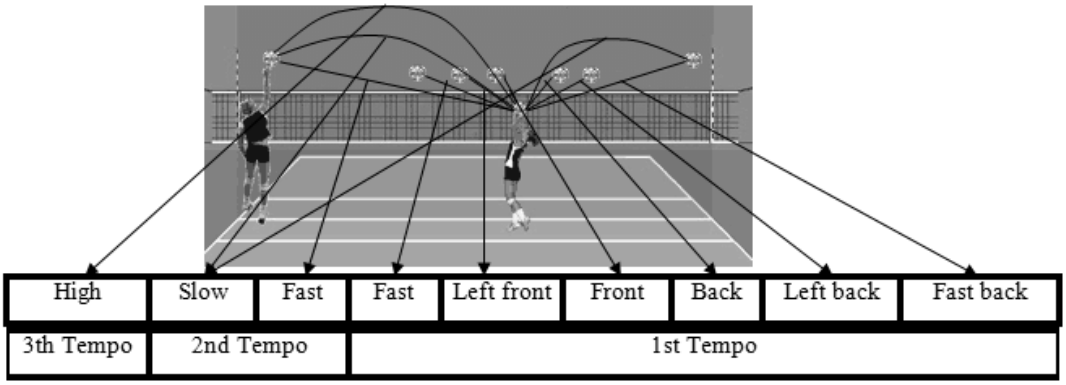
- Searching for the center of the offensive line as the optimal starting position for a low ball and pre-moving to zone 2 to facilitate control of the execution of the slide (https://www.theartofcoachingvolleyball.com/key-aspects-of-the-slide-attack/)

To define the exact rebound time of the center forwards it is necessary to take into account:

- The use of a standing ball, in the training of the pre-bounce for a low ball, paying attention to the following priorities:
  - Selection of departure time according to the trajectory of the ball coming from reception.
  - After the ball has passed the attacker's position, the final rebound step is taken.
  - At the moment the ball leaves the setter's hands, the center forward must start his rebound.
- Didactic use of a "slide" (foot) ball with a higher parabola, such as teaching the one-foot bounce technique:
  - Selection of departure time relative to the trajectory of an easy ball and a welcome ball.
  - The step with the left foot from the speed-up (the next placement of the left foot is on the bounce) happens together with the ball being touched by the setter (https://youtu.be/nHKTbPz-0Cg)



For training in the correct way of bouncing and the coordination of the upper limbs, it is necessary:

- When dribbling a low ball, to establish a line of reinforcement, which depends on the position of the setter, with the last step being fast in the direction of the opponent's zone 5 - 6:
  - Dunk low ball (1 pace) – forward swing of arms should precede the last bounce step. The preparation of the hand for impact should be at the moment of separation from the ground.
  - One-foot slide – we define a line of reinforcement that is almost parallel to the net. The way of doing the steps is with acceleration. The body during the flight phase is oriented to zone 5.

With this dunk technique, no arm swing is necessary to maintain balance in the air. Here, there is a pre-lift of the hitting hand, compared to the technique of hitting a low ball.

To train and improve the ball hit, it is necessary to pay attention to the following aspects:

- Quick wrist movement and whiplash (with straight elbow). This is a specific dunk technique inherent to center blockers.

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The technical and tactical skills in dunking the centers are developed in the following directions:

- Height of the hit on the ball to emphasize the effect of anticipation in relation to the opponent's block;
- Control of the impact on the ball, which allows varying the direction of the dunk.

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- CHAPTER 09 -

TALENT RECOGNITION AND CONTROL OF THEIR DEVELOPMENT

"One person can be a crucial part of a team, but one person cannot make a team"

- KAREEM ABDUL JABBAR -

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- CHAPTER 8 –

TALENT RECOGNITION AND CONTROL OF THEIR DEVELOPMENT

Control over the dynamics of sports results in 8-10 years of age

The attached normative-evaluation table from the "Unified Program" serves to illustrate the dynamics of development of some important morphological signs and physical qualities – overall and individually for volleyball players at this age.

Test	No.1	No.2	No.3	No.4
Class	III – IV - V	III – IV - V	III – IV - V	III – IV - V
Excellent 6	155-160-165	197-202-207	42--44--46	33,5-33-32,5
Very Good 5	153-158-163	194-199-204	40--42--44	34-33,5-33
Good 4	151-156-161	191-196-201	38--40--42	34,5-34-33,5
Satisfactory 3	149-154-159	189-194-199	36-38-40	35-34,5-34

Test No. 1. Height straight

Test No. 2. Stretching the outstretched arm

Test No. 3. Boost bounce

Test No. 4. Carrying balls: Three volleyballs are placed in the middle of the end line of the court, side by side. The performer stands outside the court and next to them facing the net. At the signal, he takes one of the balls, quickly runs and places it on the center line of the court. After which he quickly returns and successively carries the other two balls. After placing the last ball, the performer takes one of the other two and, again moving in sequence all the time facing the direction of the run, carries them one by one back to the finish line. After placing the third ball, the stopwatch is stopped and the time is counted.

The normative requirement is to collect a score of 16.

Control and assessment of technical training 11-12 years old

Test Grade	Goal pass	Serve	Underarm pass
Excellent 6	4	6	10
Very Good 5	3	5	8
Good 4	2	4	6
Satisfactory 3	1	3	4
Poor 2	0	2	3

Test No. 1. Goal pass. The performer stands at a distance of 3m from the basketball ring facing it. After he is tossing the ball and by passing with two hands from above, makes ten consecutive attempts to put the ball into the basketball basket without touching the backboard. Touching the basket by the ball without scoring is considered a successful attempt.

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Test No. 2. Underarm serve. From the serve zone, the test performer hits ten consecutive underarm serves. Over the net to the opponent's court. For the successful execution of a serve are considered those that land in the opponent's court.

Test No. 3. Two handed underarm pass. The test performer stands facing 4-5 meters from a smooth wall with a ball in his hands. After a single toss through a two-handed underarm pass, directs the ball to the wall forward and up. The ball bounced off the wall, without interruption, returns to it again ten times in a row. At the moment when the ball falls to the floor, the test is terminated, and only those attempts made before that are considered successful.

Control and assessment of technical training 8-10 years old

Test Grade	Goal pass	Serve in threes	Free dunk	Face serve
Excellent 6	6	7	6	8
Very Good 5	5	6	5	7
Good 4	4	5	4	6
Satisfactory 3	3	4	3	5

Test No. 1. Goal pass. The performer stands at a distance of 3 m from the basketball ring facing it. After he is tossing the ball and by passing with two hands from above, makes ten consecutive attempts to put the ball into the basketball basket without touching the backboard. Touching the basket by the ball without scoring is considered a successful attempt.

Test No. 2. Serving in threes: Three performers stand in one half in a triangle about 5 m from each other. One of them, after overhead throwing himself, directs the ball to one of his partners, and he meets the ball addressed to him with two-handed underarm pass and deflects it to the sides to the third teammate. The last of the three must meet with two-handed underarm and pass a high, calm ball to the player who started the exercise. The one who started the exercise directs the ball successively to one, then to the other teammate, who processes the ball in the manner described above. The ball falling to the ground is considered a foul.

Test No. 3. Free dunk: The net is placed at a height depending on the gender. The player stands in zone 4 or 2 and executes a free dunk on ten balls raised by the coach. In two sets of five dunks with a mandatory rest between sets. A ball bounced relatively hard over the net, after hitting with one hand in the outline of the other court, is considered a successful dunk.

Test No. 4. Face serve: Successful execution are considered of a serve are considered those that land in the opposite court.

Indicators of physical development and technical preparation

The process of improving the physical fitness of an athlete is unthinkable without systematic pedagogical control. The volleyball coach is interested in getting as much information as possible about the readiness of the trainees in order to comprehensively analyze the progress of the educational and training process, and to optimally plan further work. For this purpose, control tests are conducted with the help of a specially developed set of exercises and tests that allow assessing the level of physical

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fitness of volleyball players and fixing the change in this level at different stages of training. In addition, testing helps to identify the state of overtraining, and toavoid overload.

Modern volleyball places high demands on motor skills and functionality. According to Yu. Klestchev and A. Furmanov control is carried out with the following indicators:

1. **Indicators of physical development**

1.1 **Height**

Age		Height indicators (cm)				
		Height Above	Above average	Average	Below average	Low
9	Boys					
10	Girls					
11	Boys	161,4	161,4-154,6	154,6—141,0	141,0—134,0	134,0
	Girls	164,7	164,7-156,0	156,0—138,6	138,6—129,9	129,9
12	Boys	164,0	164,0—157,0	157,0—143,0	143,0—136,0	136,0
	Girls	164,3	164,3—157,9	157,9—145,1	145,1—138,7	138,7
13	Boys	172,8	172,8—165,3	165,3—150,3	150,3—142,8	142,8
	Girls	175,0	175,0—166,3	166,3—148,9	148,9—140,2	140,2
14	Boys	179,0	179,0—172,2	172,2—158,6	158,6—151,8	151,8
	Girls	176,6	176,6—170,1	170,1—157,1	157,1—150,6	150,6
15	Boys	182,0	182,0—176,6	176,6—165,8	165,8—160,4	160,4
	Girls	176,9	176,9—170,7	170,7—158,3	158,3—152,1	152,1
16	Boys	189,3	189,3—182,5	182,5—168,9	168,9—162,1	162,1
	Girls	177,5	177,5—171,2	171,2—158,6	158,6—152,3	152,3
17	Boys	191,0	191,0—184,6	184,6—171,8	171,8—165,4	165,4
	Girls	180,7	180,7—174,6	174,6—162,4	162,4—156,3	156,3

2. Body mass

Age		Body mass indicators (kg)				
		Heavy	Above average	Average	Below average	Lightweight
11	Boys	50,5	50,5—43,4	43,4—29,1	29,1—22,0	22,0
	Girls	52,1	52,1—44,3	44,3—28,7	28,7—20,9	20,9
12	Boys	51,1	51,1—44,2	44,2—30,4	30,4—23,5	23,5
	Girls	57,5	57,5—48,5	48,5—30,7	30,7—21,6	21.6
13	Boys	59,3	59,3—52,0	52,0—37,4	37,4—30,1	30,1
	Girls	62,8	62,8-54,0	54,0—46,4	46,4—27,6	27,6
14	Boys	68,1	68,1—59,6	59,6—42,6	42,6—34,1	34,1
	Girls	66,0	66,0—57,7	57,7—41,1	41,1—32,8	32,8
15	Boys	71,4	71,4—62,7	62,7—45,3	45,3—36,6	36,6
	Girls	67,0	67,0—59,8	59,8—45,4	45,4—38,2	38,2
16	Boys	79,6	79,6—70,4	70,4—52,0	52,0—42,8	42,8
	Girls	67,8	67,8—60,9	60,9—57,1	57,1—40,2	40,2
17	Boys	82,5	82,5—74,3	74,3—57,9	57,9—49,7	49,7
	Girls	70,1	70,1—63,4	63,4—50,0	50,0—43,3	43,3

2.1 Vital capacity of the lungs

Age		Vital capacity of the lungs (cubic cm))				
		High	Above average	Average	Below average	Low

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11	Boys	3264,2	3264,2—2757,1	2757,1—1742,9	1742,9—1245,8	1245,8
	Girls	2823,2	2823,2— 2394,9	2394,9— 1542,3	1542,3—1110,0	1110,0
12	Boys	3345,8	3345,8— 2837,9	2837,9— 1822,9	1822,9—1314,2	1314,2
	Girls	3310,2	3310,2— 2766,0	2766,0— 1677,6	1677,6— 1133,4	1133,4
13	Boys	4119,5	4119,5— 3428,5	3428,5— 2046,5	2046,5—1355,5	1355,5
	Girls	3475,3	3475,3— 3036,0	3036,0— 2157,4	2157,4— 1718,1	1718,1
14	Boys	4530,3	4530,3— 3856,8	3856,8— 2509,8	2509,8—1836,3	1836,3
	Girls	3980,6	3980,6— 3333,6	3333,6— 2039,6	2039,6— 1392,6	1392,6
15	Boys	5145,9	5145,9— 4465,8	4465,8— 3105,6	3105,6—2425,5	2425,5
	Girls	4097,4	4097,4— 3564,2	3564,2— 2497,8	2497,8— 1964,6	1964,6
16	Boys	5708,2	5708,2— 4984,1	4984,1— 3535,9	3535,9—2811,8	2811,8
	Girls	4545,0	4545,0— 3900,6	3900,6— 2611,8	2611,8— 1968,4	1968,4
17	Boys	5748,0	5748,0— 5060.1	5060,1— 3684,3	3684,3—2996,4	2996,4
	Girls	4401,3	4401,3— 3898,9	3898,9— 2894,1	2894,1—2391,7	2391,7

2.2 Chest girth

Age		**Chest girth indicators (cm)**				
		High	Above average	Average	Below average	Low
11	Boys	80,7	80,7—76,7	76,7—68,7	68,7—64,7	64,7
	Girls	82,9	82,9-76,5	76,5—63,7	63,7—57,7	57,7
12	Boys	81,7	81,7—77,6	77,6—69,4	69,4—65,3	65,3
	Girls	80,1	80,1-75,4	75,4—66,0	66,0—61,3	61,3
13	Boys	82,8	82,8—79,0	79,0—70,4	70,4—66,2	66,2
	Girls	85,5	85,5—79,8	79,8—68,4	68,4—62,7	62,7
14	Boys	90,3	90,3-83,9	83,9—71,1	71,1—64,7	64,7
	Girls	87,6	87,6-83,0	83,0-73,8	73,8—69,2	69,2
15	Boys	89,9	89,9—84,7	84,7—74,3	74,3—69,1	69,1
	Girls	91,7	91,7-86,4	86,4—75,8	75,8—70,5	70,5
16	Boys	95,2	95,2—89,6	89,6—78,4	78,4—72,8	72,8
	Girls	89,4	89,4—85,7	85,7—78,3	78,3—74,6	74,6
17	Boys	102,5	102,5—95,9	95,9—83,6	83,6—77,3	77,3
	Girls	94,6	94,6—88,8	88,8—77,2	77,2—71,4	71,4

3. Indicators of physical development

3.1 Vertical jump from a standing position

Age		**Bounce-ability indicators (cm)**			
		High	Above average	Average	Low
11	Boys	44,2	44,1	35,1	26,2
	Girls	42,3	42,2	32,5	22,9
12	Boys	47,7	47,6	39,1	30,7
	Girls	43,4	43,3	34,8	26,4
13	Boys	50,9	50,8	41,1	31,5
	Girls	46,5	46,4	37,5	28,7
14	Boys	58,2	58,1	47,3	36,6
	Girls	51,1	51,0	41,4	31,9
15	Boys	64,8	64,7	55,0	45,4
	Girls	51,5	51,4	42,8	34,3
16	Boys	68,3	68,2	59,2	50,3
	Girls	55,0	54,9	46,8	38,8
17	Boys	70,4	70,3	63,2	56,2
	Girls	55,7	55,6	48,4	41,3

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4. Indicators of technical development

4.1 Two-handed overhead pass

Age		Indicators for two-handed overhead pass (numbers) Sequential passes to a wall at a distance of 3 meters			
		Excellent	Very good	Satisfactory	Not satisfactory
11	Boys	4	3	2	1
	Girls	4	3	2	1
12	Boys	7	5	3	1
	Girls	7	5	3	1
13	Boys	9	6	4	2
	Girls	7	5	3	2
14	Boys	12	9	5	3
	Girls	9	7	4	3
Age		**Two-handed overhead pass rates after self tossing from zone 4 across the net into zone 6 in 3/3m square from the end-line (number) from 10 attempts**			
		Excellent	Very good	Satisfactory	Not satisfactory
11	Boys	4	3	2	1
	Girls	4	3	2	1
12	Boys	6	5	3	2
	Girls	5	4	3	2
		Two-handed overhand pass rates after zone 3 pass from zone 4 after zone 3 pass over net in zone 6 in 3/3m square from end-line (number) from 10 attempts			
13	Boys	5	4	3	2
	Girls	4	3	2	1
14	Boys	6	5	3	2
	Girls	5	4	3	2

4.2 Serve

Age		Face underarm serve in court outline (number) from 10 attempts			
		Excellent	Very good	Satisfactory	Not satusfactory
11	Boys	7	4	3	1
	Girls	6	4	3	1
12	Boys	8	6	4	2
	Girls	7	5	3	2
		Face overhead serve in court outline (number) from 10 attempts			
13	Boys	8	5	3	2
	Girls	6	4	3	2
14	Boys	9	7	5	3
	Girls	7	5	4	2
		Face overhead serve in half of the court outline (number) from 10 attempts of which 5 in the left half and 5 in the right half			
13	Boys	5	4	2	1
	Girls	4	3	2	1
14	Boys	6	5	3	2
	Girls	5	4	2	1

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5. Indicators from the conducted national testing 2022

5.1 Indicators girls 13-14 years old

	Excellent	Very good	Satisfactory	Not satisfactory
Height (cm)	Over 180	170-179	165-169	Under 164
Stretch with one extended arm (cm)	Over 240	225-239	210-224	Under 209
Body mass (kg)	55-60	50-54/61-65	45-49/66-70	Under 44/Over 71
Throwing a solid ball 3 kg. from standing position (m)	Over 8	6-7.9	4.5-5.9	Under 4.4
Special speed 9.3.6.3.9 (sec)	Under 8.50	8.51-9.20	9.21-9.99	Over 10
Bounce Length (cm)	Over 220	195-219	170-194	Under 169
Vertical jump from place – two-handed touch (block)	Over 45	38-44	31-37	Under 30
Vertical jump from place - two-handed touch (block)	Over 275	260-274	235-259	Under 234
Vertical Rebound After Boost (Dunk) (cm)	Over 50	43-49	36-42	Under 35
Vertical Rebound After Boost (Dunk) (cm)	Over 282	261-281	244-260	Under 245
Two-handed overhead pass	Over 10	5-9	3-4	0-2
Two handed underhand pass	Over 20	14-19	8-13	Under 7
Face overhead serve	Over 14	8-13	4-7	Under 3

5.2 Indicators boys 13-14 years old

	Excellent	Very good	Satisfactory	Not satisfactory
Height (cm)	Over 191	183-190	175-182	Under 174
Stretch with one extended arm (cm)	Over 250	245-250	231-244	Under 230
Body mass (kg)	60-69	70-75	76-80/55-59	Under 54/over 81
Throwing a solid ball 3 kg. from standing position (m)	10-12	8,0-9,9	6,0-7,9	Under 5,9
Special speed 9.3.6.3.9 (sec)	Under 7,4	7,5-8,4	8,5-9	Over 9
Bounce Length (cm)	Over 251	220-250	191-219	Under 190
Vertical jump from place – two-handed touch (block)	Over 71	55-70	36-54	Under 35
Vertical jump from place - two-handed touch (block)	Over 310	290-309	270-289	Under 270
Vertical Rebound After Boost (Dunk) (cm)	Over 81	65-80	45-64	Under 46
Vertical Rebound After Boost (Dunk) (cm)	Over 325	300-324	281-299	Under 280
Two-handed overhead pass	Over 8	6-8	3-5	0-2
Two handed underhand pass	16-20	11-15	6-10	0-5
Face overhead serve	16-20	9- 15	5-8	0-4

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MANAGEMENT OF METHODOLOGICAL DIFFERENCES WHEN WORKING WITH ATHLETES GROWN AT HEIGHT (ACCELERATES)

The accumulated experience during work allowed the collection of data, which over the years have been the subject of in-depth studies related to the training process. Analyzes have been made in training for a long period of time to ensure the credibility of the facts. In this sense, one of the most important methodological conclusions concerns **the differential system of effective training** in relation to the anthropometric characteristics of the athletes.

At first, only hypothetically, it was assumed that difficulty in coordination was related to early growth in height. In-depth analyzes confirm that segmental connectivity is a factor related to coordination difficulties and the consolidation of learned motor skills. Athletes of **the accelerated type** have the above-mentioned significant difficulties; while athletes of the **medium height type**, once they have reached the necessary levels of relative strength, maintain good coordination dynamics.

Methodological **differentiation** is expressed through the sequence of forms of exercises, which turns out to be optimal for turning the training process into a functional one.

Accelerator athletes, regardless of height and relative strength levels, exhibit a learning dynamic characterized by the following features:

- They must be learned through a **careful progression** of game situations (factors interfering with the correct execution and learning of movements). This means that the speed of the ball, the rhythm of the exercises and the tactical and technical tasks must be adapted to their capabilities.
- They require the structure of the didactic sequence **to always begin with an analytical exercise** of each technical skill, after which it must be presented in a synthetic form and finally applied in a specific game situation.
- Have difficulty in stabilizing technical grips and therefore planning a higher training volume of repetitions and multiple touches of the ball are necessary.

These features require the programming of a training process in which **analytical exercises of technical skills** have a decisive function throughout the training phase. Even at an older age, at the beginning of

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the season, when training is resumed after a long break, a significant loss of coordination control of movement is observed in this type of athletes.

The rest of the athletes have a learning dynamic characterized by the following features:

- Perceive and stabilize the didactic processes, regardless of the difficulty of the situations in a game environment. For this type of athletes, analytical exercises are also a means of learning technical skills, but without negatively affecting technical growth.
- They require a program structure of the training process built on the alternation of analytical and dynamic exercises, without being influenced by synthesis exercises.
- Stabilization of learning processes is faster and richer in adaptive variables.

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