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# Manual for organizing a bowling camp



Co-funded by the  
Erasmus+ Programme  
of the European Union



**PROMOTION OF SPORT AMONG  
CHILDREN AND YOUNG PEOPLE**



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## **MANUAL FOR ORGANIZING A BOWLING CAMP**

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**Zagreb, 2022.**



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# 1. INTRODUCTION

Under the auspices of the European Union, and organized by the Croatian Bowling Association of the Federation as the holder of the project "Promotion of sports among children and young people" and in cooperation with partners on the implementation of the project, bowling camps for young people were held talented bowlers between the ages of 14 and 20.

The basic task of the project team, among other things, is the creation of the Manual for the organization of a bowling camp that will be accepted as a concept of sports bowling camps, i.e. as a systematic way of working with young promising athletes, bowlers.

This manual is intended for all stakeholders in the organization of bowling camps and will greatly help all bowling organizations as a guide for a successful one the organization of bowling camps in order to improve their work using all the previous ones experiences.

Basic information about the organization of bowling alleys is published in the manual camps, and analyzes showed that a large number of talented, young bowlers who passed achieved top results in senior categories through such camp programs. The terms used in this manual for persons in the masculine gender are neutral and refer to persons of male and female sex.

## 1.1. Sports among children and young people

The value and importance of sports has been recognized for a long time, so the Latin saying, a healthy mind in a healthy body, has been quoted for centuries. Engaging in sports activities, according to possibilities, means a healthy lifestyle. In addition, today sports are very often used as a powerful means of addiction prevention; such as actions "sport against drugs", "yes to sport, no to drugs" and the like.

Sport, with its various forms, is an integral part of human history. We can look at it from different perspectives and thus interpret it differently, and we can also look at it as a possible protective factor in the prevention of risky behavior of children and young people..

Playing sports is one of the important factors in the health of children and adults, but it can also become the cause of injuries, illnesses and dissatisfaction. Games and sports are an integral part of the lives of people of different ages and social status. Sport represents the general human good and is one of the most expressive forms of



human creativity. The inclination to the sporting expression of human abilities, the desire and satisfaction in expanding the limits of human possibilities, give sport a special potential, which is especially important for children and young people. In the past, childhood was the most active part of human life. Today's children are occupied with computers, television, things that do not cause sufficient benefits for the quality development of the musculoskeletal system. According to some research, most children are not able to handle the demands of sports games in which they participate.

Coaches and teachers who work directly with them, parents, school, peer group and the environment have an educational influence on young athletes. Regular classes of physical and health education, which are available to all children, are less pressured to achieve results, in contrast to sports clubs where achieving success comes first. The survival of clubs is often directly related to achievements. Therefore, despite their knowledge and good intentions, coaches, under the pressure of club management, parents and others, often put educational work with children on the back burner. However, coaches and sports psychologists should constantly emphasize that the main goal of children's sports activities is the balanced psychophysical development of young people.

A child is attracted to sports because of fun, games and a good coach, but is repelled by sports as an imperative to win, pressure from ambitious parents, frequent injuries, lack of progress, boredom and ridicule. A child who is dissatisfied with sports training suffers from mood disorders, fears, insomnia, is tired and slacks off at school. A child is not a diminished adult, so its stages of maturation, which are different for each person, should be respected. The rule is that children start top competitive training as soon as possible. However, the beginning of specialization and playing individual sports is getting earlier.

## **1.2. Sports camps**

Sports bowling camps should establish the basics of working with young promising bowlers, which will be based on planning camps, organizing camps, conducting camps and controlling the health, psychological state, morphological development and motor skills of camp participants. Also, huge importance in these camps is devoted to the youth in mastering bowling technique and tactics.

For children, a distinction should be made between play, physical education at school and school sports, as well as participation in elite sports training. As soon as the child passes and slowly manages to run, some parents already have the idea of playing soccer or another popular sport together. However, the introduction to a specific sports activity for such young children should still be adapted to their maturity, physical capabilities and desires for the game through which they learn and train their skills the

most. The child's psychophysical health should also be taken into account because at this sensitive age, despite all the advantages that physical movement and playing sports have, there is another side of the coin. If, for example, a child feels that he has lower results than other peers, he may feel less valuable and unmotivated, which does not help in building his character.

In addition to emotional immaturity, playing sports can also lead to physical injuries if the child is overtired or accidentally falls. True, such a thing can happen during any harmless active game. In addition to the heavy obligations they have at school, a foreign language or piano course and art workshops, the sports activity that is chosen must be non-stressful, one that the children will go to with joy, and which will at the same time relieve them of stress, have a positive effect on the burden on the spine from heavy school work. bags and to teach them competitive spirit, teamwork and, above all, to create a habit of playing sports from a young age that will continue as they grow up and become a part of everyday life. All these goals should be ensured during the organization and implementation of sports bowling camps.

## **Previous experiences in organizing camps for young bowlers**

### **Organized camps POSACYP**

The holder or coordinator of the project "Promotion of sports among children and young people", the Croatian Bowling Association (CBA) in cooperation with project partners: Czech Bowling Association (CKA), Slovenian Bowling Association (SBA), Serbian Bowling Association (SBA) and KK Železiarne Podbrezova (SKŽP) organized camps for young promising bowlers in Otočac in 2021 and 2022, attended by representatives of five nations, partners in the project with six representatives each. The participants, young talented promising bowlers from these camps, in addition to technical and tactical training, also brought unforgettable experiences of socializing in an environment that had all the necessary conditions for work.

### **Camps organized by the World Bowling Federation**

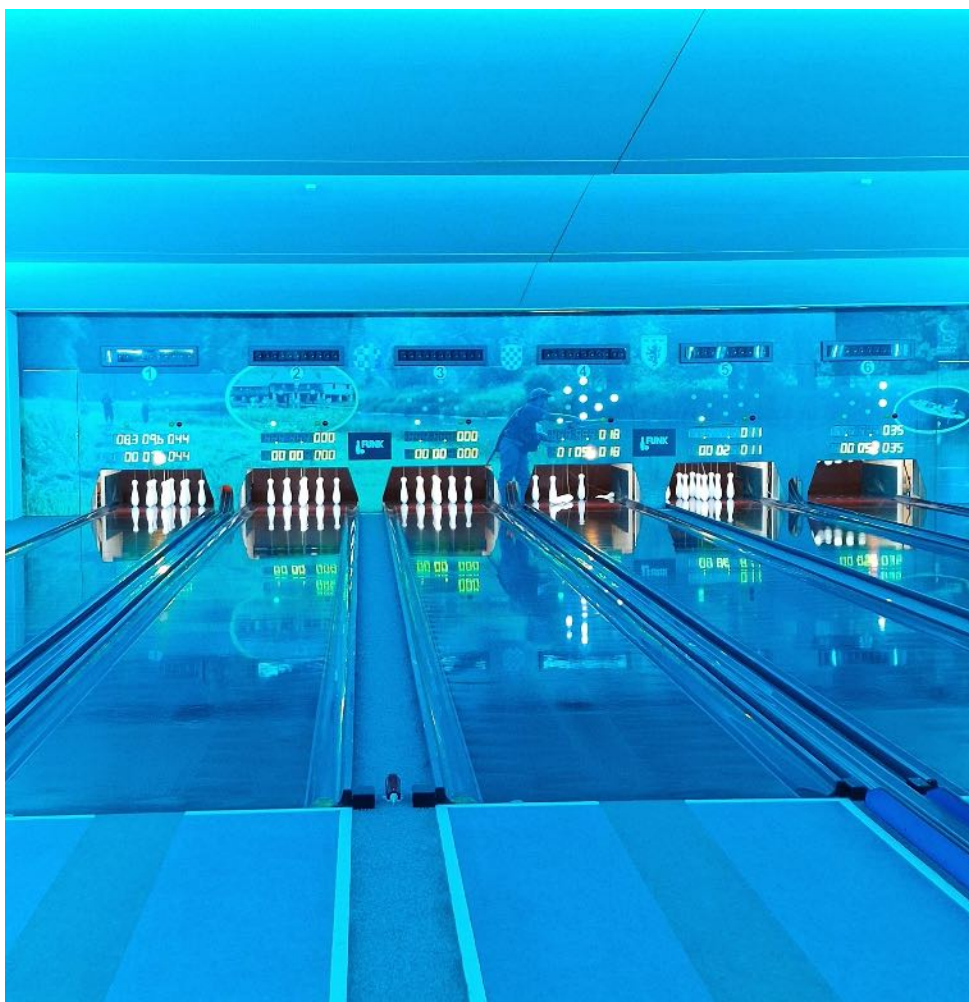
In the past decade, the International Bowling Federation has organized camps for young promising bowlers. The first camp was organized in Germany, Rabenberg (2011) with the participation of talented boys and girls from six countries, then in Slovakia, Podbrezova (2012), Serbia, Vrbas (2013, 2014, 2016, 2017), Czech Republic, Prerov (2015, 2018). ) and Hungary, Seged (2019). years.

## Camps organized by national bowling associations

In terms of organizing bowling camps for young promising bowlers, and based on the data we have, the Bowling Association of Serbia, financially supported by the budget of the Republic of Serbia, has done the most. The organization of camps in the Republic of Serbia has been carried out continuously since 1993.

## Camps organized by local bowling entities

When it comes to the organization of local bowling camps, we have no data here, but it is known that many areas successfully gather young talented bowlers who perform activities during the weekend that can be considered as two-day camps.



## 2. BOWLING AS A SPORT

### 2.1. History of bowling

A series of historical facts, such as social system, well-being, free time, define the emergence of sports. Over time, the types of sports have developed very differently. When it comes to younger species, we even know the age of the person who invented a sport (e.g. basketball), but for older species it is difficult to determine the exact origin and the person who invented a certain sport.

Bowling is a sports game in which a ball is used as a device to shoot at a target in the form of cones placed on a stand that is at a certain distance inside the track. In some languages (Croatian, English), the game is named after the device used to shoot - kugli (bowl), and in some (German, French, Slovenian) after the props that represent the goal - cones (kegeln, jeu de quilles, kegli).

We do not have precise information about the inventor of the bowling game. The first beginnings of games similar to bowling date back to the distant past, which is concluded on the basis of the remains found in the tombs of Egyptian pharaohs and the graves of other ancient peoples. The stone balls of that time, which were aimed at a specific place or object, preceded the props and games that were played later.

The first European written source about bowling dates back to 1157, and appears in Rothenburg during the reign of Frederick. Another source dates from the 13th century, originating from Bamberg, Germany, and is a didactic poem *Der Renner* (The Runner) that mentions bowling and bowlers. Pictures from that period show the placement of the cones (skittles) and the ball with which they try to hit the cones. In that period, the women and children of the nobility mostly played bowling outdoors. According to available data, this type of bowling was developed in most of the powerful Frankish state..

In England, bowling is mentioned during the reign of King Edward III. (1312-1377), who, despite his enthusiasm for the game, fearing that it might distract from archery as a military skill, banned bowling by law in 1366. By the 14th century, bowling increasingly became a civil game, and it is probably from this period that the names of the pins (king, queen, peasant) originate.

Martin Luther (1483-1546), the founder of Protestantism in Germany, supported organized bowling in front of churches, so at that time bowling was called "Luther's game" among Germans. Despite occasional bans over time, and for various reasons,

bowling took deep roots in developed medieval Europe. Many medieval German chronicles recorded the appearance of bowling games with wooden balls in monasteries with an educational and moralizing purpose, where the cone represented evil, so monastery clerics, in order to improve their status, submitted to the bowling test, proving their strength. Towards the end of the Middle Ages, bowling began to be practiced by the citizens as well, with most castles having their own bowling alleys.



More progress was made when the first bowling alleys were made of compacted loam sprinkled with fine sand and slag. The roughness of the surface was still high, and accidental obstacles (larger pieces of stones or slag) still affected considerable differences in the final result. In order to further improve the surface on which the ball moves, special oak boards were installed in the middle of the track.

Considering the increasing prevalence of bowling in German countries (the influence of German bowling was important for the development of the entire world bowling), in the middle of the 18th century, uniform bowling rules began to be formed. Almost a hundred years later, in 1885, the German Bowling Association was founded in Dresden, which soon numbered 220 clubs. The newly formed association resolved the issue of uniform bowling alleys, cones and balls, and competition regulations. As a norm for the bowling alley, they took the dimensions of the bowling alley that was built in Vienna in 1874. It is interesting to note that they founded the American Bowling Association in the same year.

On the American continent (USA), the game of bowling was brought over from Europe, with bowling especially developing on the East Coast and in areas where gold miners flocked. In the vicinity of such mines, bowling alleys and bowling centers were

built, and gambling games developed alongside them. This was the reason for the legal ban on bowling in all US cities (1840). However, considering that the ban referred to ninepins bowling, a group of resourceful people introduced the tenth pin to the game about forty years later, thus avoiding the law and created the game of tenpins bowling). In 1895, the American Bowling Congress (ABC) was founded in the USA, which prescribed unique rules for ten-pin bowling, the dimensions of bowling alleys, pins, balls and other accessories.

A new turning point in bowling was the establishment of the International Bowling Association in 1926 in Stockholm, but unfortunately that association, called the International Bowling Association, only needed ten-pin bowling. After II. after World War II, the work of the Alliance was renewed, but the results were still lacking. The activity of the IBA was terminated in 1949, and on January 27, 1952, at the initiative of nine European countries, the founding congress of the new international bowling federation (Federation Internationale des Quilleurs - FIQ) was held in Hamburg.

An important turning point came with the introduction of automatic bowling alleys, which enabled an even greater number of people to engage in bowling.

## **2.2. Bowling training**

### **2.2.1. Basic terms**

**KINESIOLOGY** (as a science) is formed from the Greek words KINEZIS (movement) and LOGOS (science) and represents the science of movement, and studies the laws of managing the exercise process, as well as the consequences of these exercises on the human organism.

**TRAINING THEORY** is a scientific-teaching discipline that studies kinesiological, anthropological, methodological and methodical laws of planning, programming and control of sports training, which means that it deals with vital issues of theory, technology and programming of sports preparation.

**SPORTS TRAINING** in the broadest sense is a pedagogical process aimed at the formation of knowledge, abilities, skills and habits of athletes, containing all procedures that lead to the improvement of motor skills and competitive results. It is a continuous process that respects the proven laws and respects the biological, kinesiological and functional characteristics of athletes, with the aim of achieving a top sports result.

Sportski trening uvijek izaziva adaptacijske promjene, predstavlja vrstu fizičkog i mentalnog rada, planiran je i programiran te se sistematično provodi, dugoročni je the

process of sports specialization, is carried out above the limit loads and manages the appropriate methods and loads.

**SPORTS FORM** is the state of an athlete in the stage of developed training when he is prepared to achieve the highest sports results.

**TRAINING METHODOLOGY** studies the laws of methods, types and forms of training work, that is, it represents the technology of training work. Technology is a word created from the Greek word *TECHNE* - art, skill (craft) and *LOGOS* - science. Methodology is a set of knowledge that enables selection, dosage, distribution and organization of training for athletes of a certain age, gender and quality.

**TRAINING PLANNING** is a complex management action of defining the goals and tasks of the training process, and includes periodization (definition of time cycles for achieving goals) and determining the conditions for their realization (technical, material, personnel). The plan must be based on measurable quantities, because this is the only way to objectively evaluate the effects of training.

**TRAINING PROGRAMMING** is a complex management action in which, on the basis of set goals and tasks, and in accordance with established time and material and financial conditions, procedures are determined that contain information on the selection and distribution of resources, workloads and methods of training work and competition in individual cycles of sports preparations. It is about the selection, dosage and arrangement of training operators suitable for use in certain cycles of sports preparations.

**TRAINING OPERATOR** is the basic element of the methodical procedure and represents a stimulus from which effects are expected in the form of quantitative and qualitative changes in the athlete's state of training.

**PERIODIZATION** of training is the process of determining typical training cycles, their order and duration, and the character of training work. By periodization, a large training cycle is divided into smaller cycle units, enabling easier management of training effects by segments and achieving top form at the most important competitions (importance of the competition calendar).

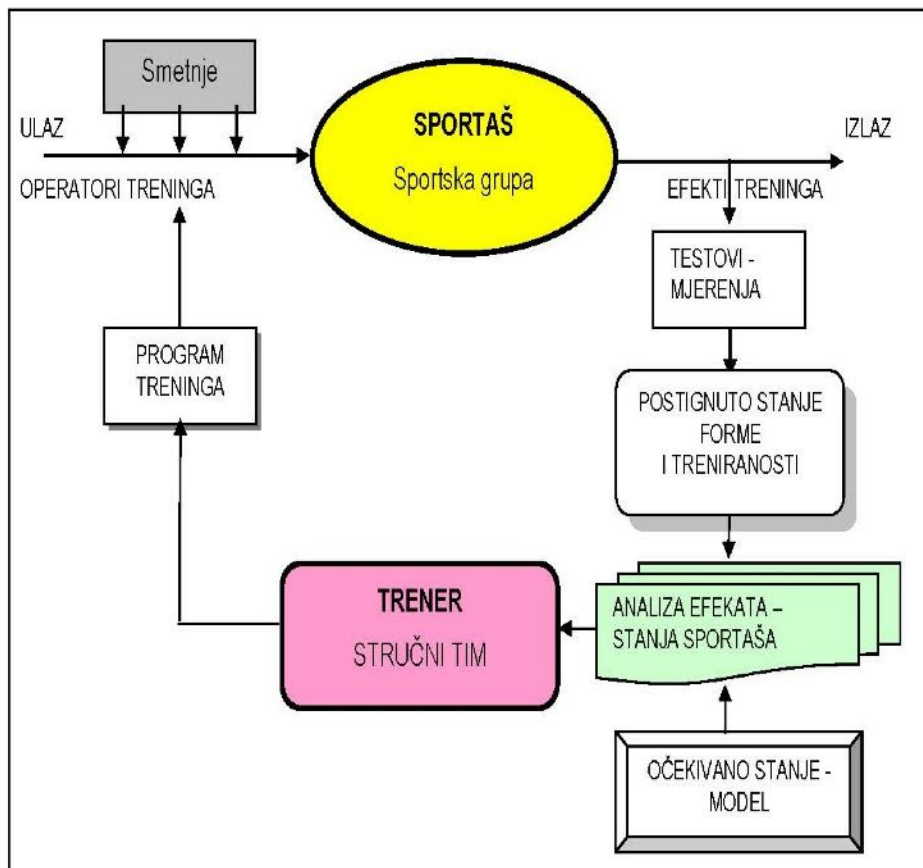
**THE MICROCYCLE** represents the basic cycle structure of the sports training process and represents a closed unit (relatively) that is constantly repeated with smaller or larger corrections, depending on the achieved effects.





## 2.2.2. Definition of sports training

Sports training is a process in which the athlete transforms from an initial state to a final state of training. This points to the fact that the process of sports training is a DYNAMIC CONTROL SYSTEM.



The control system represents the specification of the relationship between inputs, states and outputs. The state of the athlete during each training process is defined by testing the output parameters (morphological and functional features of the athlete's organism in order to set a realistic goal, and ends with the output sports result (arriving at the goal). The training process represents the application of technologies of training operators in order to develop the training process, whereby A change in the input causes a change in the output values. In this case, the input values are the causes and the output values are the consequences of sports training. As the structure and direction of changes in the output values affect the selection, dosage and distribution of the input values, the training process should always be realistic (not fast), that is a long

and difficult path, so correct steps through the training process (methodology) are the first condition for reaching the goal (positive result).

The theoretical definition of sports training has advanced a lot throughout history, but the essence has remained the same, while only the definition has been adapted to its time. The definition of sports training in bowling, and in every sport, is a continuous process with the aim of achieving supercompensation processes through proper and long-term training and leading to the desired goal (top result) without results for the athlete's organism.

The role of sports training is to introduce the athlete to sports form, and then to achieve top results with the management and control system.

The application of scientific and technological achievements upset the balance and destroyed many athletes, but only because the legality that is essential for a proper training process was not respected. Quick success, fame, money, destroyed many athletes and even their lives. For a top athlete, proper training must be the meaning of life.

A correct picture of an athlete's capabilities (testing, diagnosis) lasts throughout the entire sports career, and is the only way to success in coaching. Improving, adjusting, raising to a higher level all important parameters and characteristics, is the only way to achieve the desired goal. The essence is always the same, only the concepts are different.

Sports training in bowling is a pedagogical process that, through a complex system of training and the continuity of that training process, activates physiological processes in the athlete's body, leading to supercompensation, which inevitably leads to the improvement of the physical, psychological, intellectual, technical and tactical qualities of the competitor's bowler, and therefore to excellent results.

Sports training is:

- a long process
- it is planned and programmed
- is carried out systematically
- is a type of mental and physical work
- it is performed beyond the limits of possibilities and physical and mental efforts are overcome

In the bowling sport in the previous period, continuity was not given much importance and some of the legalities of the training process were not respected. The beginning of the application of the right training process is closely related to the technical development and improvement of bowling facilities. The training period and thinking about training technology is closely related to the beginning of bowling on segment boards, which was very different from the previous state, bringing accelerated development and a different approach to the training process with only one most important goal - a top result. Technological development has accelerated and improved almost all sports branches, but in bowling it is very noticeable, because bowling is a small sport, so every novelty is easily and quickly reflected in the competitive result.

### **2.2.3. Application of science in sports training**

Top results cannot be achieved without the application and use of modern scientific methods in any sport, including bowling. Technological development has led to an accelerated development of training methodology, recovery and level of results.

The very progress and improvement of bowling facilities has inevitably changed the way of training, as well as the technique of bowling in order to achieve top results. Scientific methods from other sports were also applied in bowling, especially in the method and systems of training, training control and recovery between training sessions, and in the competition itself.

Scientific achievements and the application of these achievements are especially systematically included in the proper training process, especially in the domains of: anatomy, physiology, biomechanics, sports medicine, psychology, pedagogy.

Knowing the basic principles of applying scientific achievements are the most important components of every training session, including the training process in bowling, with the aim of ensuring quality results without harmful results for the athlete's body.

### **2.2.4. Structural analysis of bowling**

Bowling is a beautiful and interesting sport, but at the same time it is a complex and demanding sports technical discipline. Its characteristic is the multiple repetition of a technically correctly executed ball throw, because it is necessary to have individual technical and tactical knowledge.

Bowling as a sports activity belongs to monostructural sports with an internal closed moving structure that repeats itself cyclically. It is characterized by high-intensity psychomotor activity interrupted by periods of rest with the necessary concentration in a short time interval due to the rule of limited duration.

Considering the dominance of certain motor skills, we classify bowling as a sports discipline dominated by precision. The elements of bowling activity also include some natural forms of movement: running (walking, squatting, lunging), as well as specific techniques of throwing a device (balls) into a static, variably placed target (cones) at a certain distance.

In bowling, movement is achieved in a straight line, and preferably always in the same way with the need for multiple repetitions, because individual technique and concentration tactics are required. In addition, bowling has specific requirements on the energy, information and psychological levels, and bowling has a positive effect on the regulation of some conative factors (personality traits).

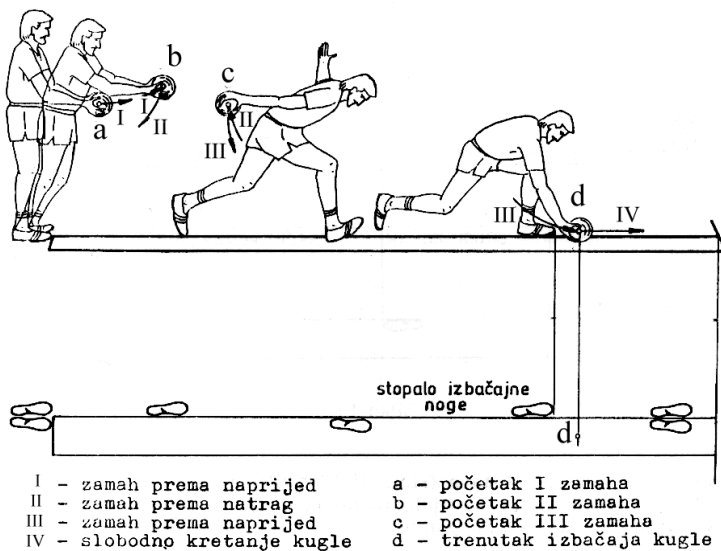
### **2.2.5. Basic technical elements of bowling**

The activity in the bowling game begins with taking the ball out of the groove, and continues with preparation, rest, concentration, consultation and placing the contestants at the starting place on the board, i.e. the starting point. Correctly occupying the starting position enables the optimal length of the run depending on the morphological characteristics of the competitor and the formation of a correct imaginary diagonal line - connecting from the starting point, through the imaginary point of laying on the board, to the target cones on the cone stand.

Correct positioning on the footboard enables straight movement without deviation left-right, swing of the arm along the body (1/2 half the width of the footboard. max. movements of 1 foot left and right). In this case, you should pay attention to the total length of the run and the place of laying.

After taking the initial position and preparation with the necessary concentration, the run follows as one of the most important technical factors for the correct execution of the shot. At the same time, the launch must be in a straight line, with a gradual increase in the speed of movement and the length of the step until the ball is thrown onto the court, in order to ensure the imaginary path of the ball to the cones.

A good kinesthetic sense of the target, estimation of parameters and automated kinesthetic control of movement on the runway during the run, spatial sense of placing the ball in the middle of the board and concentration before starting the shot, which is limited to a relatively short time interval due to the rules limited game time.



The run is performed in three steps, with the step and connection of the leg in the fourth step after the executed shot. Important technical elements when executing a shot are carrying the ball in flight, placing the ball in the middle of the transverse width of the board and the possible activity of the fingers when throwing the ball.

The shoulders must be perpendicular to the competitor's body during the entire run, the body's center of gravity gradually lowers until the ejection in order to achieve as much "length" as possible (following the ball with the throwing hand in the direction of the cones from the moment the ball is placed on the backboard), and the layup is must be performed tangentially to the competitor's straight outstretched arm with the shoulder as a support, and to the middle of the position board.

During the realization of the movement (flight), only minimal corrections are possible based on perceived deviations from the ideal trajectory of the movement, which means that the sensation (perception) of space and the localization of the target - cones (indirectly via the starting point and the point of placing the ball on the board), with technically correct execution of the movement in the run-up and throwing of the ball, basic conditions of high precision.

The throw represents the end of the run - the third step with the beginning of the final stance - the stopping fourth step. Physically, it is the most demanding technical element and often the most important, both in terms of precision and effectiveness of the shot.

## 2.3. Physical training training

### 2.3.1. Home training program of physical preparation

Each workout within the home training program consists of an introductory part, a preparatory part and the main part of the training.

Every training starts with muscle relaxation, static and dynamic muscle warm-up, muscle activation.

After these actions, we are ready to do the main part of the training and do 4 rounds of 4 exercises that are assigned to us.

For example: type 1, we do 4 rounds of 10 repetitions of each exercise with endurance from 30 min to 1 min. After the main part comes the final cardio part. Let's choose 3 exercises and do 3 rounds. After each round we have a break of 90 s and over time we can reduce the rest time and thus increase the endurance of the body.

Below is an example of a home plan and training program for physical preparation.

## HOME PLAN AND TRAINING PROGRAM

### Introduction:

1. Myofascial muscle relaxation on a self-massager (massage roller) 5 min
2. Static and dynamic stretching of muscles and joints (flexibility and mobility)

### Preparatory part:

1. Activation of the muscles of the buttocks (small bridge, raising the buttocks from the floor)
2. Activating the trunk and back muscles (dead insect, lateral hold, superman extension)
3. Activation of the lower extremities (steps in place, hip flexion and opening)
4. Activation of the upper extremities (knee push-ups, pull-ups with a rubber band)

### Main part:

#### **Tip 1**

1. *Stepping in motion (forward, backward and sideways)*
2. *Plank (static, alternately moving the arms, lifting the legs)*

3. *Push-ups (on an elevation, on a flat surface, legs on an elevation, up to a load)*
4. *Pull-ups with tires (vertical and horizontal)*

### **Tip 2**

1. Squats (with restriction of movement, free movement)
2. Stretches with elbows on the ball (from the knees and on the feet)
3. Heel pulls towards the buttocks (feet bare on the floor, hips elevated)
4. Tire pulls or pulls

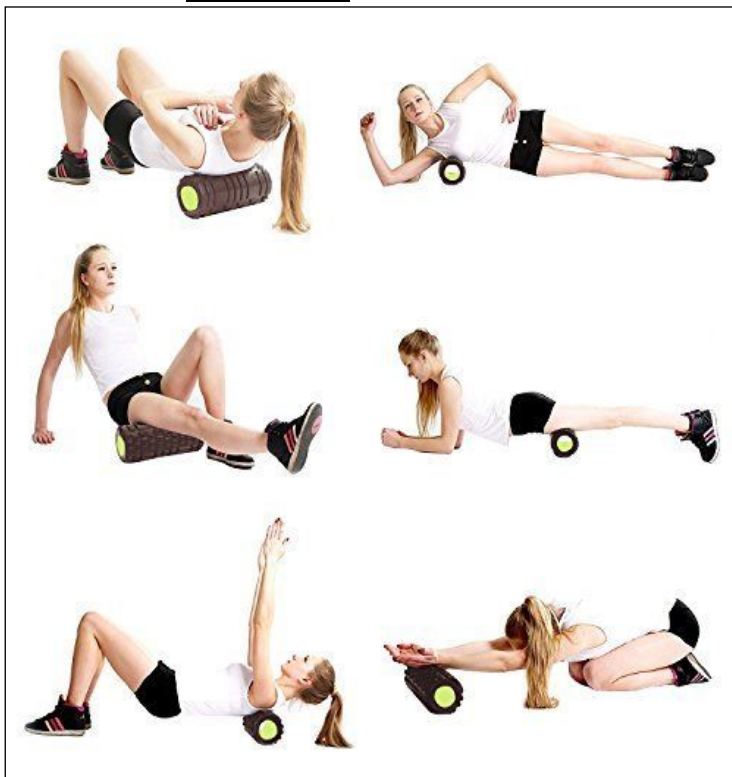
### **Tip 3**

1. Bulgarian squat (leg on a bench or elevated surface)
2. Lateral plank (static hold, raising the lower leg or both alternately)
3. Explosive hip flexors (using rubber or some object)
4. Push-up and reverse push-up

### **Cardio:**

1. Squat jump 10-20 repetitions
2. Jumping jacks 30 – 120 s
3. Skipping the screw 50-100 repetitions or 1-2 min
4. Crawling (bear gait) 30 – 60 s
5. Marines 10 – 20 repetitions
6. Jumping on an elevation 10 – 20 repetitions
7. Running in a plank for 30-60 seconds
8. Long jumps 10-20 repetitions
9. Running at 50, 100, 200 m

## HOME PLAN AND TRAINING PROGRAM 1.ROLLING



The foam roller is used for muscle relaxation, i.e. myofascial relaxation. Before each stretch, we must allow the muscle to be able to gain as much movement of the joint and its movement in the exercise itself as possible during stretching and mobility.

## 2. MOBILITY

### 1. LOWER LOWER SPRING (HAMSTRINGS)



We actively push the heel into the floor, embrace the stretched upper leg of the opposite leg and pull it towards the chest.



## 2. QUADRA/ANKLE ON THE KNEE (GLUTEUS)



## 3. SIDE / ARM OPENING ACROSS THE BODY (SHOULDER, CHEST)



## 4. PIGEON (GLUTEUS)



## 5. 5. FROG /KNEES WIDE TO ELBOWS (ADDUCTORS)



Place one foot on top of the knee of the other leg, wrap around the lower leg and pull the knee towards the chest.

We lie on our side, our legs are drawn at the hip level below 90 degrees, our palms are joined, and we open with our hands to the side, keeping the body in the initial position.

The front leg goes into external hip rotation, the back leg is extended, the back is straight and the abdomen is active.

Let's spread the knees, open the feet outwards, back straight and torso active. We raise and lower the hips backwards.

## 6. FOUR-LEGGED COMPLEX (SPINE + SHOULDER)



Bring the heels close to the buttocks, the abdomen is active and the hands are on the floor. We raise the buttocks from the floor and rotate the pelvis towards the abdomen.

## 7. STEP / KNEE PUSH (QUADRICEPS + HIP FLEXOR)



We lie on our backs in the so-called of a dead insect, we perform diagonal springing of the leg and arm and change sides when returning the arm and leg. When stretching, the lumbar part of the back must be close to the floor and the abdomen active the whole time.

## 8. STICK SWITCH (SHOULDER)



Elbow under the shoulder, knee of the lower leg bent at the knee, upper leg extended. We raise the hip from the floor and maintain the position with a tight stomach and an active leg by vibrating up and down.

**\*STATIC STRETCHING FOR 10 SECONDS,  
DYNAMIC FOR 6 REPETITIONS.**

### 3. ACTIVATION

#### 1. SMALL BRIDGE (GKUTEUS)



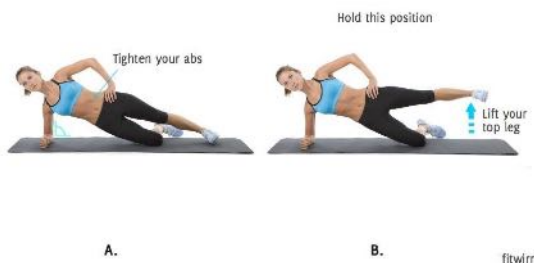
The knees are under the hips, the palms are under the shoulders, we lift the thoracic part of the spine upwards and return it to the neutral position.

#### 2. DEAD BUG (CORE)



We step forward with one leg, hips parallel to the front, embrace the foot of the opposite leg and pull the heel towards the buttock, trunk active.

#### 3. SIDE PLANK /ELEVATING FEET



We embrace the stick shoulder-width apart, stretch out our arms and do a backswing, where our elbows must remain extended. When repeating, we reduce the grip.

#### 4. PLANK PLUS



Push-up position, palms under the shoulders, we actively raise the arm towards the shoulder alternately.

#### 5. SQUAT



Feet shoulder width apart, toes slightly open outwards and arms extended forward. We descend down to the parallel and lift back up.

#### 6. BODY HELICOPTER



Legs spread wide, torso bent forward, back as straight as possible, and we go with the palm to the opposite leg and alternately switch arms and legs.

#### 7. BAND PULL



The back is straight, the trunk is active, the legs are slightly bent at the hips and knees. We embrace the tire with our hands and actively pull back from the shoulder blade while our chest is open to the outside.

## 4. MAIN PART (FIRST TWO WEEKS)

### 1. DEAD BUG (FITBALL)



We press the ball with our hands and knees, the torso is active and the back is close to the floor. We separate the arm and leg together diagonally and switch sides when returning.

### 2. SPLIT SQUAT



Astride position, hands on hips and torso compressed. We go down, bend the hip and knee and come back up after touching the floor.

### 3. ANTI-ROTACION ON KNEE (BAND)



Kneeling position, torso tight and buttock compressed. We extend our arms from the chest and do not allow the rubber to rotate us.

We do the first three exercises in a round of four sets. We do ten repetitions of each

#### 4. SMAL BRIDGE ON FITBALL



#### 5. BODY PULL (BAND)



#### 6. TITRATION WITH LEGS AND HANDS IN X SHAPE



Our heels are on the ball, we touch the ground with our buttocks, lift our hips up and rotate our pelvis towards our chest.

Step on the rubber, bend the hips and straighten the back. Our trunk is firm when pulling, and our chest is outward during pulling. Make sure to bring the shoulder blades together and pull the shoulders away from the ears.

On the chest, we spread our legs and arms in the shape of the letter x, lift our arms and legs and continue to vibrate and squeeze the buttocks and the lumbar part of the back during the performance.

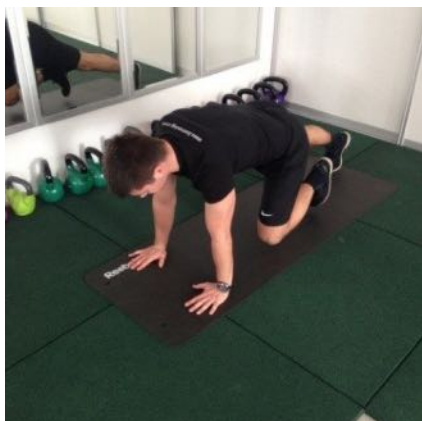
We do the other three exercises in a circle of four sets. We do ten repetitions of each exercise.

## CARDIO

### 1. JUMPING ROPE



### 2. MOUNTIAN CLIMBER



### 3. SQUAT TO PLANK



Stance upright, legs outstretched while jumping. The screwdriver makes the same circle that we make with our hands at hip level.

Push-up position, palms under shoulders, legs firm and torso stable. We alternately kick the knees to the chest while keeping the whole body stable.

From a standing position, we move into a squat and go down to the (plank) push-up position, and return to a squat and to the starting position.

We perform each exercise for 30 seconds in four sets with a 30-second break between sets.

## 5. MAIN PART (SECOND TWO WEEKS)

### 1. PLANK ON ELBOWS



Position on the elbows, legs and buttocks compressed and trunk active. Maintain stability as long as possible.

### 2. SQUAT



Feet shoulder width apart, toes slightly open outwards and arms extended forward. We go down to the parallel and lean against the wall with a straight back.

### 3. PALOFF PRESS



Upright posture, legs and buttocks compressed, and the trunk firm and stable. When extending the arm from the chest, we resist the force so that it does not rotate us to the side.

We perform the first three exercises in four sets. Plank 30 - 60 seconds, squat for 30-60 seconds, anti-rotation 10 each side. Gradual increase at the end of the





#### 4. PUSH UPS

Depending on the level of training, we choose the weight of push-ups. Palms under the shoulders, legs and buttocks stabilized, and the trunk solid. We go down with the chest down, and the elbows go to the side at an angle of 45 degrees.

In the initial position, we stabilize the body, lift the chest outwards and do a pull-up.

#### 5. TRX PULL



#### 6. FITBALL HIPEREXTENSION



We rest our pelvis on the ball, our legs are stuck to the wall, and hands behind the head. When lifting, the trunk is firm and the head looks down.

The other three exercises are performed for 10 - 20 repetitions in four series. We gradually increase the repetitions at the end of the week.

### 1. HIGH SKIP



We alternately lift the legs and opposite arms and transition from a low to a high skip. The hull is solid and stable.

### 2. JUMPING JACKS

1A



1B



From the position of straight legs together, we come to the position of spread legs, and arms above the head. Jump to the beat.

### 3. BURPEES



From the upright position to the diaper and the transition to an upright and light jump. Maintain the same rhythm.

We perform each exercise for 30 seconds in four sets with a 30-second break between sets.

## **6. MAIN PART (SECOND MONTH)**

### **TRAINING 1**

- 1. STRETCHING ON FITBALL**
- 2. ANTI-ROTATION IN THE STRANGE**
- 3. ACCELERATION LEAP**
- 4. ONE-LEG DEAD LIFT**
- 5. PUSHUPS ON FITBALL**
- 6. SWITCH ON FITBALL**

### **TRAINING 2**

- 1. PLANK ON FITBALL**
- 2. SIDEBOARD WITH PULL (RUBBER)**
- 3. BIRD DOG WITH SUPPORT ON THE WALL (RUBBER)**
- 4. PULL LEG ON FITBALL**
- 5. PUSH-UPS WITH RESISTANCE ( RUBBER)**
- 6. TRX CLIMBERS**

### **TRAINING 3**

- 1. AB WHELL STRETCH**
- 2. ANTI-ROTATION IN THE STRANGE**
- 3. BULGARIAN SQUAT**
- 4. STRAP SQUAT WITH RESISTANCE (TUBE)**
- 5. TRX PUSHUPS**
- 6. TRX ONE HAND PULL**

***IN THE FIRST MONTH, WE PROGRESSIVELY DO THE TRAINING 3 TIMES A WEEK, AND IN THE SECOND WEEK WE INSERT RUNNING 2 TRAININGS A WEEK IN BETWEEN THE STRENGTH TRAINING. WE RUN PROGRESSIVELY WEEK BY WEEK FOR THE FIRST MONTH. WE START WITH 2 KM IN THE FIRST TWO WEEKS WHILE THE SECOND TWO WE INCREASE TO 3 KM. ENTERING THE SECOND MONTH, WE ARE ENTERING A NEW PART OF THE EXERCISES AND KEEPING THE PROGRESS WITH THREE COMBINED WORKOUTS A WEEK. WE MAINTAIN AND RAISE THE RUN TO 5 KM AND KEEP THE PACE AND TRY TO ACCELERATE IT. TAKE CARE OF PROPER NUTRITION AND SUFFICIENT SLEEP OF 7-8 HOURS.***

## TRAINING 1

### 1. ROLL OUT ON FITBALLU



On the knees in an upright position, we strengthen the buttocks and trunk and do the downward and backward stretch.

### 2. ANTI ROTACION ON KNEE



In the lunge position, we strengthen our legs and torso and resist the force of the rubber when extending our arms from the chest.

### 3. FRONT LUNGE



From a standing position, we start to step forward, touching the ground with our knees. Our trunk is solid and we alternately move forward with our legs.

We repeat the first exercise 15 times, while we do the other two 10 times on each side.

#### 4. ONE LEG DEAD LIFT



We stand upright on one leg, our foot is active and we maintain balance. Grip the weights with your hands and begin to lower yourself with a straight back, turning back when your back is parallel to the floor.

#### 5. PUSH UPS ON FITBALL-U



The arms are spread out at the end of the ball, we stabilize the trunk and legs and lower the chest towards the ball and when we touch the ball with the chest we go back and repeat the action.

#### 6. SWITCH ON FITBALL-U



Position for push-ups, feet on the ball, fix the trunk and legs, lift the buttocks towards the ceiling, and keep the back straight.

Each exercise is performed for 15 repetitions, while exercise 5 is combined with 10 repetitions on both sides.

## TRAINING 2

### 1. PLANK ON FITBALLU



### 2. SIDE PLANK BAND PULL



### 3. BIRD DOG WITH BAND



Our elbows are on the ball, we stabilize our torso, our legs are stable and we hold the position as long as possible.

Elbow under the shoulder, rise to the feet and push the hips off the ground. We keep the position stable while pulling the tire with the other hand.

Step on the tire with one foot, make a straight back bend, press the foot against the wall and keep the body tense. In this position, we pull the tire 10 times and change the side.

We keep the first exercise for 1 minute, we repeat the other two 10 times on each side.

#### 4. PULL LEG ON FITBALL



#### 5. PULL UPS WHIT BAND



#### 6. TRX MOUNTIAN CLIMBERS



We lie down, our feet are on the ball and the body is stretched out, but the buttocks are active. We pull the heels towards the buttocks and lift the body upwards.

Place the tire over your shoulder and cover it with your palms. With the legs pressed together and the trunk active, we move up and down.

In the push-up position, we place our feet on the trx and alternately do kicks with our knees towards the knees.

We repeat the first two exercises 15 times, we do the last exercise for 30 seconds.

### TRAINING 3

#### 1. AB WHELL ROLLOUT



On the knee, we push the wheel forward, rotate the pelvis and squeeze the buttocks and trunk. When stretching, we keep the position of the trunk stable and when returning

#### 2. ANTI ROTACION IN LUNGE



Lunge position, 10 cm knee is separated from the floor and we push our hands from the chest and keep the body stable and resist the force of the tire.

#### 3. BULGARIAN SQUAT



One leg raised on the bench, the other in a step. Lower your knee to the ground and keep your body upright.

The first exercise is repeated 15 times, the second two are repeated 10 times with each side.



#### 4. SPLIT SQUAT WITH BAND



In the lunge position, step over the rubber with the leg and wrap the opposite shoulder with the rubber. We lower the body straight down and lift it up.

#### 5. PULL UPS ON TRX



Let's position ourselves in a push-up and rest our hands on the trx. Our torso is attached, and our legs are stable. We do lowering and lifting in a controlled manner.

#### 6. TRX ONE HAND PULL



We embrace the trx with one hand, our legs are slightly lowered to the trunk and we keep our legs stable. We're doing a retreat.

We do the second exercise 10 repetitions to the first and the third exercise 10 times on each side.

## 2.4. Rest and regeneration

### 2.4.1. Rest

Rest can be active (eg hiking, walking, gardening, stretching, yoga, light cardio, etc.) or passive (physical and mental relaxation without physical effort - reading books, watching movies, listening to music, meditation, doing nothing 😊 etc. ).

Stress and psychological well-being (discomfort) also play a big role in rest. If we are constantly under stress and nervousness, this will affect both our efficiency and subsequent regenerative processes in the body.

### 2.4.2. Regeneration

Regeneration or regeneration processes after exercise (strengthening) include all activities that support the recovery (repair) of damaged tissues (in our case, muscle fibers), restoration of energy reserves by replenishing glycogen stores, and restoration of the central nervous system. In other words, both peripheral and central fatigue are recovered. Without sufficient regeneration, performance in training and wrestling tends to be poorer and there is a greater risk of overtraining.

Regenerative activities mainly include nutrition, sleep, active or passive relaxation (walking, stretching, reading books, meditation) or wellness (massages, saunas, whirlpool, etc.).

When the athlete is well exercised, another key phase for the expected sports results comes - regeneration (after the child and the exercise itself). Regeneration is a rather underrated topic among amateur athletes. Especially for young people - parties, parties, etc. No body needs to be "charged", replenished with nutrients, restore "damaged" muscles, gain new strength after exercise and recover from an exhausted central nervous system. Insufficient rest can therefore hinder our efforts.

The processes of regeneration or regeneration after exercise include all activities that support the restoration (repair) of damaged tissues (in our case, muscle fibers), the restoration (gain) of energy and the recovery of the central nervous system (CNS), which is also responsible for activating the muscles controlled by our will. , for concentration. Strength training, exercise, sports activities are only part of our efforts. When we "damage" our muscles with these activities, we give them an impulse to grow. After this impulse, however, the muscles need to be given quality nutrients, enough energy and enough rest.

### **Acceleration of the regeneration process (anabolic processes)**

Quality and sufficient nutrition (compensation of the necessary nutrients and energy) quality and sufficient sleep (the length is completely individual, about 6 - 9 hours a day) rest during the day (relaxation) mental well-being, enough time for recovery after training (appropriate frequency of training per week) supplements nutrition.

Sauna, massages, stretching.

### **Slowing down the regeneration process (catabolic processes)**

Alcohol to a greater extent (parties, parties, etc.), low-quality or short sleep, stress, overtraining, drastic diet (long-term varied diet with fewer calories), frequent increased physical activity during the day, lower testosterone levels.

#### **2.4.3. Sleep**

We can relax during the day, but being awake constantly causes a certain muscle tone (state of resting tension). In sleep, this tone is significantly reduced. If we sleep poorly or not enough, the tone increases and regeneration is delayed (reduced). In addition, growth hormone is released during sleep, strengthens bones and increases their mineralization, has a positive effect on muscle protein synthesis, increases muscle volume (hypertrophy), affects positive nitrogen balance or enhances lipolysis ("fat burning"). Lack of growth hormone can cause depression, muscle wasting, memory impairment and overall quality of life. The secretion of growth hormones is influenced by the duration of sleep (ideally around eight hours) and certain sleep hygiene.

In addition to growth hormones, insufficient or poor quality sleep can negatively affect other hormones (increase cortisol, decrease testosterone and IGF-1), which in turn can negatively affect muscle protein synthesis and overall regeneration.

#### **2.4.4. Relaxation - massages, saunas, strengthening, whirlpool, etc.**

Various massages, saunas, cryotherapy, hardening, and even relaxation in the whirlpool are the icing on the cake. The higher the level of the athlete, the more these relaxation techniques will give him. No, for average recreational activity, these activities have a positive effect on immunity, vitality and the overall health of the organism. The regenerative basis will always be good nutrition, reasonable training (not overtraining), mental state and sleep.

### **Conclusion**

Mental well-being is an important part of quality regeneration. So it also means enjoying life. So stay calm, enjoy life, but everything in moderation.



## 2.5. Bowling training plans according to cycles

### 2.5.1. Bowling training methodology

Methodology is a set of knowledge that enables selection, dosage, distribution and organization of training for athletes of a certain age, gender and quality. It is also the procedure for choosing such training operators who have the greatest transformational power - effect.

The structure of the methodological elements of sports training, including bowling, is represented by: training content, training load, training methods, organizational forms of training, organizational forms of training, location of training, training aids.

Training methods are specific ways and forms of work that are used in the training process or competition. In doing so, we distinguish the process of learning a bowling movement from the process of practicing that movement with the aim of automation.

The learning process represents mastering the basic elements of the technique (it is done individually and in a methodically correct way). The rule is to start early, practice a lot, but properly, perfect individual technique and upgrade it with tactics. The goal is to be precise, but also efficient enough.

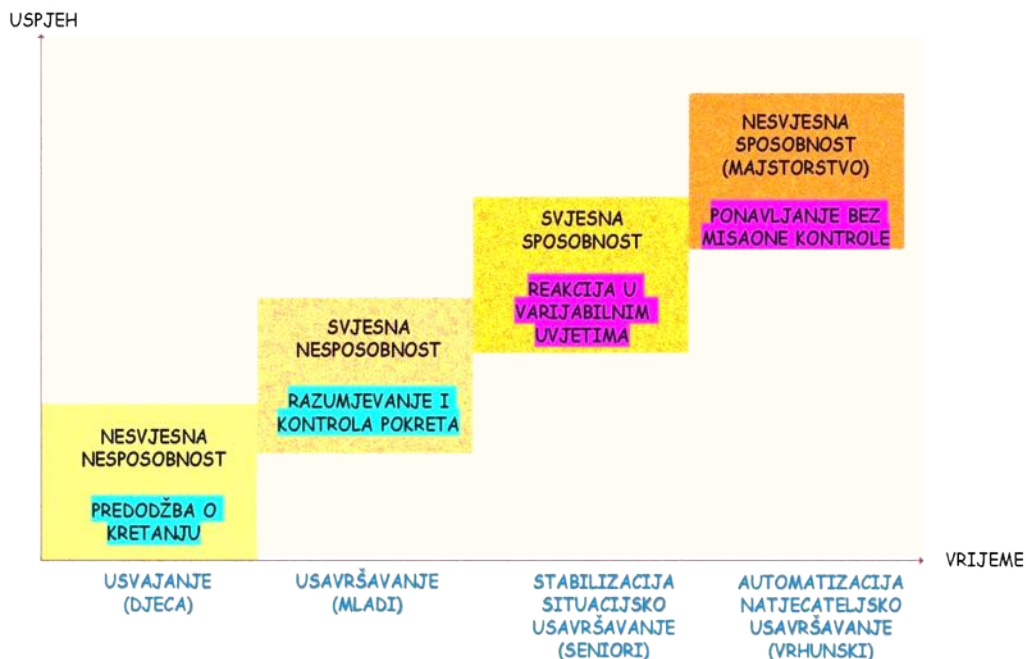
It begins with initial training with the adoption of elementary data for structuring the motor program, continuing with the formation of more solid knowledge about the motor task, which basically ends the motor training, and in the subsequent stages of learning, using situational and competitive training methods, the athlete's motor knowledge is raised to the level of resistance to disturbances from the environment. In that phase, technical-tactical exercises are connected with training loads that correspond to competitive activities, enabling the performance of a specific task up to the level of reflex performance.

Order of activities in the methodical learning of technical-tactical tasks:

- announcement of a technical or tactical task
- discussion about the task
- structural, biomechanical, physiological analysis of the task
- trainer's demonstration
- performing tasks slowly
- spotting typical mistakes
- identifying the cause and carrying out correction exercises
- performance of the task in situational conditions

<p><b>The technique is learned in the 4th stage:</b></p>	<p><b>Technical and tactical preparation (learning process) is realized in the 4th phase</b></p>
<p>The idea of movement</p> <p>Understanding and control movement</p> <p>Reaction in variable situations</p> <p>Repetition without thought controls</p>	<p><b>Initial training - adoption (children)</b></p> <p><b>Training (youth)</b></p> <p><b>Stabilization or situational training (seniors)</b></p> <p><b>Automation - competitive training (superior)</b></p>

**PHASES OF METHODOLOGICAL LEARNING AND PRACTICE**



The exercise process is carried out in situational conditions (on a bowling alley), all with the aim of automating the movements. In this case, the exercise process should always be carried out cautiously and under supervision, because it takes twice as much time to change and correct previously incorrectly memorized and automated exercises (break down the wrong and adopt the correct)

### .2.5.2. Bowling training models

#### **Preparation period:**

3 training sessions one (Mon, Wed, Thu)

*First week - 30 shots x 4 lanes in full. At the end 30 shots (15 full/15 cleaning). Running 1.5 km from the bowling alley.*

*Second week - 15 shots x 4 lanes in full. 15 strokes x 4 stages of cleaning. In the end 60 shots (15 full/15 cleaning). Running 1.5 km behind bowling.*

*Third week - 30 full shots. 15 shots x 4 lanes in position (15 shots first 3 cones right side, 15 shots left 3 cones, 15 shots right queen and king, 15 shots left queen and king), 60 shots (15 full/15 clearing). Running 1.5 km behind bowling.*

*Fourth week - 30 full shots. Game on two tracks 60 shots. The first track is a full shot, the second track is a clean shot. Second game on two tracks 30 shots in position. The first track is straight with 3 cones on the right side, the second track is straight with 3 cones on the left side. 30 shots (15 full/15 clean). Running 1.5 km behind bowling.*

#### **Pre-competition period:**

4 training sessions in one (bowling / running / cycling)

*Monday (bowling and running), Tuesday (bowling and cycling), Thursday (bowling and running), Saturday (bowling and cycling). Running 2 km, cycling 10 km.*

**First week** - 30 full shots, 60 position shots, 4 lanes of 15 shots.

(track 1, position right side - king, first lady, peasant)

(track 2, left side position - peasant, last queen, last cone)

(track 3, position right side - peasant, last lady, last cone)

(track 4, left side position - king, first lady, peasant).

60 shots mixed (30 shots left leg, 30 shots right leg).

**Second week** - 30 full shots, 60 position shots on two lanes x 30 shots per lane.

Alternately - We throw a shot on lane 1 and we throw a shot on lane 2.

(track 1 position last cone; track 2 position two peasants).

Alternating 60 shots on two tracks (track 1 full, track 2 cleaning).

**Thrd week** - 30 shots full, 60 shots position.

(track 1 - 15 shots, right side queen and knight)

(track 2 - 15 shots, left side queen and knight)

(track 3 - 15 shots, right side first three and last left queen)

(track 4 - 15 shots, left side first three and last right queen)

60 shots mixed.

**Fourth week** - 30 shots in full, 60 shots in position.

(track 1 - right double checkers, track 2 - left double checkers) x 30 shots

(track 3 - 15 shots, king and right last queen)

(track 4 - 15 balls, king and left last queen)

60 shots mixed.

**Fifth week** - Monday we repeat the training from the first week,

Tuesday we repeat the training from the second week,

Thursday we repeat the training from the third week,

Saturday we repeat the training from the fourth week.

### **Competition period:**

*3 training sessions (Monday, Tuesday and Thursday)*

*Working on frequent mistakes in certain positions during the game, pointing out deviations in the shot technique.*

**Monday** - 30 shots in full. 60 shots in position (work on precision and maintenance concentration during the competition itself).

right side positions - (first lady and peasant), (back cone), (peasant),

(pawn, last queen), (double queen), (king, first queen, pawn), (king).

60 shots mixed. Running 2 km.

**Tuesday** - 60 position shots. Positions of the left side - (first three cones), (queen and pawn), (double queen), (king, first queen and pawn), (king and last cone), (peasant).

120 shots mixed. Cycling 10 km.

**Thursday** - 30 shots in full. 60 shots on two tracks alternately,

(track 1 - shot to the pune, track 2 - shot to the peasant's right, then the fourth shot to the left peasant).

60 shots mixed. Running 2 km





### **3. ORGANIZATION OF THE BOWLING CAMP**

Sports camps for bowlers are of great importance, especially in recording the most talented children aged 14-20 in both sexes, and thus also for the promotion and development of classic bowling in the world. The importance is also reflected in determining the health status of all promising athletes - bowlers who participate in the camps, and determination through testing of functional abilities, motor skills, morphological characteristics as well as the psychological and social status of all participants of bowling camps.

The bowling camp can be used as a preparation for an international competition because the best young promising bowlers gather at the camp. At a certain stage, the camp can also be used to select players in a certain selection for a bowling competition.

At the same time, it is not insignificant that the best coaches work at the camp, who will determine the state of technical and tactical training of the camp participants. Based on these characteristics and established motor skills, coaches will give young bowlers instructions for further development and progress in mastering the bowling technique.

In the framework of the camp, bowling coaches are educated, especially younger ones, by organizing expert seminars, which aim to improve the sport of bowling and follow modern trends in the development of the sport. The bowling camp is an opportunity to organize a competition for the participants of the camp as a check of their previous work and determination of their sports form at a given moment. In the end, the conclusion is that the camps are prerequisites for the achievement of top sports results, which established the justification of investing in young talented bowlers.

#### **3.1. Steps in the organization of camps**

To be able to talk about the camp, we need to define the meaning of the word camp in more detail. Namely, every sports camp is unique and the camps differ in location, environment, activities, equipment and various other things. The organization of a sports camp where children and young people participate must be specially designed and adapted to different ages, different levels of knowledge, adopted level of technique, physical fitness...

Before starting with the planning and organization of the camp, first of all, it is necessary to determine the goal that the camp wants to achieve, who the camp is intended for, why it is so, what exactly will be done and in what way.

Only after the level of the expected results of the camp and the available budget have been determined, the organization of the camp can be started. Some of the questions that should be imposed before the very beginning are:

- What is the reason and purpose of this camp?
- What is the message to children and young people?
- What is the most suitable place?
- What are the terms and what are the deadlines?

In order for the organization to be successful, here are the steps that need to be taken in order to organize a quality sports camp:

**1. Determine the goal and purpose of the camp** - why is the camp being organized, what does it want to achieve?

Is the camp for beginners, for the selection of the national team, for the massification of the sport, for the advanced.

**2. Determine the location and time of the camp** (taking care of school, obligations...) and it is mandatory to check the information with experts, coaches, guests, check the availability of the place, i.e. the sports facility where the camp is to be held, and check the accommodation units.

**3. Organize professional people** who will lead the camp and volunteers, camp guests, speakers.

**4. Give the name of the camp** - for emphasis and attention, maybe give a short slogan, acronym.

**5. Create a camp plan**

- logistics and catering - work out the arrival of the participants (organize shared transportation, multiple participants in one vehicle, compensatory arrival, early departure, etc.), organize accommodation for the participants, nutrition (take care that they are athletes and that they have a lot of activity and nutrition is necessary adapt if there is a vegetarian, allergic to some food, etc.).

- registration of participants (emails, online applications, written traces about participants)

- activities and entertainment - make sure there are plenty of breaks and enough time to rest, organize some kind of trip to take a break from sports, show something interesting, etc.

- management and care of trainers, participants, volunteers.
- printing the same T-shirts for all participants (if possible) and the like

**1. Find sponsors and partners of the camp** (if there is interest) and everything for the purpose of financing part of the camp, help with the organization, assignment of sports space, help of technical staff on the sports field.

**2. Use promotion and publicity** - inform the public, promote events on social networks and websites, send invitations or e-mails, and finally award each participant some kind of certificate of appreciation (diploma, medal...).

**3. Create a budget for the camp**, which should include a realistic estimate for all the key items of the plan (travel, accommodation, meals, advertising, excursions, thank-you notes...).

**4. Carry out the final evaluation of the camp and collect feedback** - it is important to collect feedback from the participants in order to check the success of the camp (number of applicants? fulfillment of objectives? evaluation of the event? survey of participants?...) where every piece of information is important in order to know later react and fix the less attractive things, and nurture examples of good practice.

**5. Inform yourself about the social environment of international camps**, whether you are a local or a guest, and familiarize yourself with the rules of the country you are traveling to (which identification document is required, conditions such as pandemics, country's currency, season and weather...).

## **6. Have a plan B for everything.**

When planning a camp, it is necessary to look at everything from the point of view of the participants, for example, how to find out about the camp, where all the necessary information is, how to register for the camp, when to go, how to get to the destination, what equipment is needed, what kind of food and drink to take on the trip, etc. The camp organization should always have a backup plan ready, for example, if tests and exercises are performed on outdoor fields, a hall should be ready in case of bad weather. Namely, if things go in the wrong direction, they must be dealt with in a timely manner so that the camp participants do not even notice it.

## **3.2. Conditions and resources for maintaining camps**

### **3.2.1. Facilities and equipment in bowling camps**

In the proposal of its program for the organization of bowling camps, the sports organization is obliged to submit information about the location of the camp, the date of the camp, the facility where the camp activities will be conducted, as well as information about the accommodation capacity and the conditions of accommodation and food, as well as the accompanying sports facilities.

Sports equipment and props must be adequate and appropriate for the smooth running of the training process.

### **3.2.2. Personnel resources of bowling camps**

Over This term in bowling camps includes all camp participants, from players, coaches, to supporting staff, i.e. management. It is desirable that experienced, licensed coaches work in the camp, coaches who have achieved notable results in their coaching vocation. In addition to experienced coaches, young coaches who show the sense of being a coach should be given a chance. Other resources that also play an important role in the organization of the camp are information resources and financial resources.

### **3.2.3. The bearers of activities for the organization of bowling camps**

Among others, the International Bowling Federation for camps of an international character, national bowling associations for camps of a national character, regional bowling associations, bowling clubs and other bowling organizations for camps at the regional, club or local level can be responsible for organizing camps for prospective bowlers.

### **3.2.4. Planning activities at bowling camps**

In order for the organization of the camps to be successful, it is necessary to start planning the bowling camp on time. This implies the distribution of certain information related to the organization of the planned camp. This information should contain data on the number of athletes and coaches, the date of the camp, the total number of days and the necessary accommodation capacity, as well as the location of the camp. In order to successfully conduct a bowling camp, it is necessary to create a plan of activities at the camp by day, and such a rough plan would look like this.

#### **FIRST DAY**

- 12.30 - 1.30 pm — Arrival and registration of participants
- 14.00 — Lunch
- 14.30 - 15.30 — Accommodation of participants
- 16.00 — Division of participants into groups (bowling alley)
- 16.00 - 19.00 — Free bowling (60 shots)
- 19.00 — Dinner
- 20.00 — Meeting of camp participants with coaches
- 22.00 — Dinner

## **SECOND DAY**

- 07.00 — Morning footing
- 08.00 — Breakfast
- 10.00 — Testing by groups
- 13.00 — Lunch
- 15.00 — Continuation of group testing
- 19.00 — Dinner
- 20.00 — Meeting of participants with trainers and analysis of the working
- 22.00 — Dinner

## **THIRD DAY**

- 07.00 — Morning footing
- 08.00 — Breakfast
- 10.00 — Work on bowling technique in groups
- 13.00 — Lunch
- 15.00 — Continuation of work on bowling technique by groups
- 19.00 — Dinner
- 20.00 — Meeting of participants with trainers and analysis of the working day
- 22.00 — Dinner

## **FOURTH DAY**

- 07.00 — Morning footing
- 08.00 — Breakfast
- 10.00 — Competition, 120 shots per group
- 13.00 — Lunch
- 15.00 — Continuation of the competition, 120 shots per group
- 19.00 — Dinner
- 20.00 — Meeting of participants with trainers and analysis of the working day
- 22.00 — Dinner

## **FIFTH DAY**

- 07.00 — Getting up
- 08.00 — Breakfast
- 08.30 - 18.30 — Going on an excursion
- 19.00 — Dinner
- 20.00 — Meeting of participants with trainers and analysis of the working day
- 22.00 — Dinner

## **SIXT DAY**

- 07.00 — Morning footing

08.00 — Breakfast  
10.00 — Competition mix  
13.00 — Lunch  
15.00 — Sprint competition  
19.00 — Dinner  
20.00 — Meeting of participants with trainers and analysis of the working day  
22.00 — Dinner

#### **SEVENTH DAY**

07.00 — Morning footing  
08.00 — Breakfast  
10.00 — Competition, individual final for the best individuals  
13.00 — Lunch  
15.00 — Free bowling  
19.00 — Dinner  
20.00 — Meeting of participants and evaluation of results, conclusion  
21.00 — Banquet  
22.00 — Dinner

#### **EIGHTH DAY**

08.00 — Breakfast  
08.30 — Departure of camp participants

The program of the camp for promising young bowlers is carried out with a clear goal, which is to convey to young people knowledge about the ways and methods of the training process, with the main focus on the importance of technical - tactical and physical preparation, improvements in motor skills and moral qualities.

Also, young promising bowlers attending the camp will acquire some other very important qualities such as socializing with peers, behavior in a group, adaptation (cycle) to a sports lifestyle and acquiring new habits of responsibility through the execution of daily duties.

### **3.3. Local camps**

The organization of local camps by counties would be held for three days. Arrival would be on Friday before lunch. After lunch, there would be a meeting with the definition of tasks and obligations in the coming days. Testing players for general physical condition, working on technique and testing bowling training technique of 120 shots single and tandem competition.

**FRIDAY:** 1 pm – lunch  
2 pm – meeting  
3 pm – departure to the bowling alley  
Player testing and playing the first 120 shots  
7 pm – dinner  
8 pm – analysis of the day

**Saturday:** 8 am – breakfast  
9 a.m. - departure to the bowling alley  
Continuation of testing and work on technique  
2 pm – lunch  
4 pm – return to the bowling alley  
Continuation of testing and work on technique  
7 pm – dinner  
8 pm – analysis of the day

**Sunday:** 8 am – breakfast  
10 a.m. – running test and a short rest  
12:00 – tandem competition  
4 pm – lunch  
17:00 – analysis and awarding of prizes  
19:00 - return home

### 3.4. Education about the importance of playing sports

The goal of organizing bowling camps is, among other things, to familiarize participants with the essential elements of a complete approach to playing sports, which include training, health monitoring and care, physical therapy, nutrition and the specific psychological needs of children and young people.

Nowadays, children are more and more occupied with social networks, video games and are often overwhelmed with school obligations. Therefore, the inclusion of children in sports activities is becoming more and more important every day. Sport is not only a fun activity for children, which also contributes to their physical health and separates them from the screen at least for a while. Sport, on top of that, encourages the psychological and social development of children and teaches them skills that can be applied outside the field or hall. The fact that sport is more than just a physical activity is well known and, along with the importance of sport for the betterment of society, the role of sport in the overall development of a person is also emphasized.

Self-control, emotion management, effective coping with obstacles and teamwork are just some examples of skills that children acquire through sports. But there is always the other side of the coin, and these outcomes, unfortunately, are not guaranteed. Regardless of whether it is an elite or recreational level of activity,



participating in sports competitions exposes children to pressure and a series of stressful situations. They can thus become overwhelmed competitive climate, lose motivation to play sports after losses, experience negative interactions with peers, whether it's members of the opposing team or their own team, or base their confidence on results. Undesirable outcomes are possible even in the absence of competition.

As in everything in life, children need the support of their parents in sports in order to successfully face everyday challenges, both positive and negative. Parents often praise the results, medals won and talents of their children, but what should really be praised is their effort and time invested in training. In this way, children's fear of failure is reduced, their self-confidence increases, and at the same time their enjoyment of sports.

The coach's role goes beyond teaching the technical and tactical elements of the sport. Coaches should also take care of the psychological development of their athletes and create a sports environment in which children feel safe and place emphasis on personal growth and development, not on competition results or social comparison. They are often coaches and role models for young athletes. Therefore, it is important that they themselves behave the way they teach children and that they live in accordance with the values they want to pass on to them.

Ultimately, mental coaches teach children strategies and skills that will allow them to reach their maximum potential in the sport and transfer the learned strategies beyond it. Children are very capable of using psychological skills and strategies such as mental simulation and relaxation exercises, and given that they are playful and imaginative work on acquiring the aforementioned and similar skills acquires a new dimension. However, working directly with mental coaches is not always possible or available, but their knowledge is.

It should not be forgotten that sport is also a form of entertainment for children and they should really enjoy it, take a break from school and hang out with friends. Not all children will become top athletes, it should be remembered that through sports they work on themselves and have the opportunity to develop a valuable set of skills that they will need later in life. That is why it is important that children have adequate support so that sport can fulfill its educational potential.



### 3.5. Tests

#### 3.5.1. Physical preparation tests for boys

Hight	Weight	Rope 1 min.	Core 1 min.	Jump from place	Proclination	Pull up overhand	1500 m	4x10m Sek.	Points
		180	48	270	0	20	5.00	8.80	<b>100</b>
		170	46	265	-2	18	5.20	9.00	<b>90</b>
		160	44	255	-4	16	5.40	9.10	<b>80</b>
		150	40	250	-6	14	6.00	9.20	<b>70</b>
		140	38	245	-8	12	6.20	9.30	<b>60</b>
		130	36	240	-10	10	6.45	9.40	<b>50</b>
		120	34	235	-12	8	7.15	9.50	<b>40</b>
		110	32	230	-14	6	7.45	9.60	<b>30</b>
		100	30	225	-16	4	8.10	9.70	<b>20</b>
		90	28	220	-18	2	8.35	9.80	<b>10</b>
		80	25	210	-20	0	9.00	9.90	<b>0</b>

#### 3.5.2. Physical preparation tests of girls

Hight	Weight	Rope 1 min.	Core 1 min.	Jump from place	Proclination	Pull up overhand	1500 m	4x10m Sek.	Points
		180	44	220	0	63	5.30	10.10	<b>100</b>
		170	42	213	-2	57	5.50	10.20	<b>90</b>
		160	40	207	-4	51	6.10	10.30	<b>80</b>
		150	38	201	-6	45	6.30	10.40	<b>70</b>
		140	36	195	-8	39	6.50	10.50	<b>60</b>
		130	34	189	-10	33	7.10	10.60	<b>50</b>
		120	32	183	-12	27	7.30	10.70	<b>40</b>
		110	30	177	-14	21	7.50	10.80	<b>30</b>
		100	28	171	-16	15	8.10	10.90	<b>20</b>
		90	26	165	-18	9	8.30	11.00	<b>10</b>
		80	24	160	-20	3	9.00	11.10	<b>0</b>

### 3.5.3. Bowling test

TEST trener: \_\_\_\_\_

Ime i prezime \_\_\_\_\_

POGODAKA

ZBOJ

1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		
1	2	3	4	5	6	7	8	9	10		

UKUPNO

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PUNE - L

Za promešaj upisati X

PUNE - D

Za promešaj upisati X

<b>MODIFICIRANI CUPER TEST</b>			
6 min.		Kuglanje utakmica	
Pm	Pn	PULS	
VISINA		TEŽINA	

<b>REZULTAT UTAKMICE</b>	
PUNE	CISCENJE
UKUPNO	

POSTOTAK	UKUPNO
POGODAKA	POGODAKA



# TEST EU CAMP SLOVENIJA

## 05. 08. 2020.

Prezime ime	Test tjelesne pripravljenosti																			Kuglanje		Srečna frekvencija	
	cm	kg	vijača	B.	trbuš	B.	skok m.	B.	predklon	B.	zglb	B.	1500 m	B.	4x10m	B.	bodovi	postotak	zbroj	start	raz.		
	180	61.0	166	85	40	70	205.00	0	-6	30	3	15	5:50	75	9,35	55	330	37.00%	202				
	169	59.0	155	75	38	60	195.00	0	-3	15	3	15	5:55	75	9,40	50	290	44.00%	208				
	188	72.0	192	100	42	75	242.00	55	-8	40	6	30	5:40	80	8,90	95	475	45.00%	189				
	182	69.0	190	100	43	75	239.00	45	-6	30	5	25	5:35	85	8,90	95	455	34.00%	194				
	170	72.0	143	60	46	100	190.00	55	-1	5	39"	60	6:50	50	10,20	90	440	37.00%	195				
	176	65.0	151	70	48	100	210.00	85	-3	15	45"	70	6:55	70	10,00	100	510	30.00%	202				
	169	62.0	148	65	42	90	195.00	60	0	0	33"	50	7:00	55	10,90	20	330	20.00%	142				
	171	59.0	146	65	41	85	190.00	55	-1	5	39"	60	7:10	50	11,20	0	320	38.00%	201				









## EU CAMP - Otočac 2021

### TJELESNA PRIPREMA DJEVOJČICE

	Prezimel ime	narodnost	1500 m	B.	Izdržljivost ks	B.	prestok	B.	aktiv.	B.	bučanj	B.	predikon	B.	stok	B.	body	kg	cm
1.		CZE	8.01	20	21	30	162	80	9.88	100	48	100	6	100	2.09	80	510	75.5	177.0
2.		SVK	8.45	0	42	60	111	30	9.88	100	48	100	18	100	2.06	70	460	60.0	164.0
3.		CRO	8.35	0	28	40	141	60	9.96	100	48	100	11	100	1.87	40	440	57.0	167.5
4.		SRB	7.38	40	68	100	82	0	10.54	50	31	30	18	100	2.03	70	390	61.0	177.0
5.		CRO	10.15	0	25	30	87	0	9.91	100	48	100	18	100	1.90	50	380	66.0	170.0
6.		SVK	8.45	0	38	50	132	50	11.05	0	43	90	17	100	1.98	60	350	53.0	160.5
7.		CZE	8.39	0	47	70	82	0	10.51	50	33	40	9	100	2.00	60	320	58.0	178.5
8.		SLO	8.52	0	44	60	67	0	11.17	0	48	100	15	100	1.90	50	310	54.0	170.0
9.		SLO	8.49	0	32	40	75	0	11.36	0	50	100	0	100	1.98	60	300	39.0	159.0
10.		CZE	8.45	0	40	60	120	40	11.45	0	37	60	18	100	1.77	30	290	64.0	176.0
11.		SVK	10.15	0	27	40	73	0	11.36	0	41	80	18	100	2.02	70	290	47.0	163.0
12.		SRB	9.00	0	29	40	100	20	11.06	0	42	90	9	100	1.77	30	280	63.0	161.0
13.		SLO	9.49	0	44	60	80	0	10.86	20	37	60	4	100	1.79	30	270	58.0	169.0
14.		SRB	8.31	0	31	40	56	0	10.71	30	32	40	20	100	1.91	50	260	59.0	168.0
15.		SLO	11.30	0	26	30	78	0	11.90	0	34	50	3	100	1.57	0	180	56.0	169.5

## EU CAMP - Otočac 2021 TJELESNA PRIPREMA DJEČACI

	Prezime/ime	narodnost	1500 m	B.	Izazivost v/s	B.	preškok	B.	švicar.	B.	šueklon	B.	stok	B.	body	kg	cm
1.		SVK	6.37	50	13	60	124	40	9.79	10	50	100	2.61	80	440	68.5	182.5
2.		SRB	6.56	40	9	40	136	50	9.45	40	47	90	2.57	80	440	78.0	186.5
3.		CRO	6.02	70	9	40	66	0	9.08	80	49	100	2.31	30	420	78.0	189.0
4.		CZE	5.50	70	7	30	129	50	9.51	30	50	100	2.14	0	380	72.0	178.0
5.		SVK	7.00	40	7	30	133	50	10.06	0	47	90	2.47	60	370	76.0	194.0
6.		SVK	7.09	40	8	40	90	10	9.61	20	52	100	2.20	10	320	70.5	178.5
7.		SRB	7.24	30	9	40	96	10	10.02	0	42	70	2.25	10	260	76.0	180.5
8.		SLO	6.40	50	9	40	82	0	9.80	10	37	50	1.99	0	250	52.0	168.0
9.		SRB	6.56	40	8	40	50	0	9.92	0	37	50	2.26	20	250	64.0	164.0
10.		CZE	7.42	30	1	0	103	20	9.82	0	32	30	2.34	30	210	93.0	191.0
11.		CRO	8.22	10	1	0	118	30	9.76	10	33	30	2.02	0	180	89.0	192.0
12.		CRO	8.00	20	0	0	57	0	10.58	0	38	60	1.99	0	180	114.0	191.0
13.		CZE	9.06	0	0	0	90	10	10.45	0	33	30	1.86	0	140	126.0	188.0
14.		SRB	8.31	0	31	40	56	0	10.71	30	32	40	1.91	50	260	59.0	168.0
15.		SLO	11.30	0	26	30	78	0	11.90	0	34	50	1.57	0	180	56.0	169.5

# EU CAMP - Otočac 2021

## UKUPNA SPREMA DJEVOJČICE

Prezime i ime	narodnost					TJELESNI TEST										TEHNIKA			120fs			KOPRINAČLA		
	130cm	šyby	presedk	4x10m	čičenj	presedk	skok	body	uspješnost	bovani	pane	čičenje	prazne	čuojena	pane	čičenje	prazne	čuojena	pane	čičenje	prazne	čuojena		
	CRG	0	30	0	100	100	100	80	380	56,7%	221	379	196	1	575	405	211	1	619	781	410	2	1194	
	CZE	20	30	80	100	100	100	80	510	56,7%	220	383	204	1	589	380	218	3	598	765	422	4	1187	
	CZE	0	60	40	60	100	100	30	290	35,0%	210	383	176	1	559	371	220	1	594	757	396	2	1153	
	CRG	0	40	60	100	100	100	40	440	45,0%	222	366	186	3	552	359	202	3	551	725	288	6	1113	
	SVK	10	50	50	90	100	100	60	360	46,3%	225	362	191	3	556	353	202	2	555	715	396	5	1111	
	SRB	40	100	0	50	30	100	70	390	35,0%	214	336	175	8	533	391	165	4	576	719	360	12	1109	
	SRB	0	40	20	0	90	100	30	280	46,3%	214	355	181	7	536	371	183	6	554	726	364	13	1090	
	CZE	0	70	0	50	10	100	60	320	31,7%	212	373	166	4	561	351	165	1	516	721	353	5	1077	
	SRB	0	40	0	30	40	100	50	260	45,0%	225	366	196	1	562	338	157	6	515	724	353	7	1077	
	SVK	0	40	0	0	80	100	70	290	45,0%	222	370	170	7	540	362	152	7	514	732	322	14	1054	
	SVK	0	60	30	100	100	100	70	460	46,3%	213	362	172	5	534	370	147	6	517	732	319	11	1051	
	SLO	0	40	0	0	100	100	60	300	25,0%	185	330	168	8	518	333	126	16	459	683	294	24	977	
	SLO	10	60	0	0	100	100	50	320	16,6%	171	330	138	16	488	331	130	12	481	681	266	28	969	
	SLO	0	60	0	20	60	100	30	270	8,3%	143	320	134	19	454	319	122	18	441	639	256	37	895	
	SLO	0	30	0	0	50	100	0	180	15,3%	162	322	113	24	435	302	97	25	399	624	210	49	854	

# EU CAMP - Otočac 2021

## UKUPNA SPREMA DJEČACI

Prezime i ime	TJELESNI TEST										IHRUKA			170hrs			170hrs			KIKRIKACIJA		
	1.80m	stijly	preskok	4x10m	čučanj	preskok	škok	body	Uspjehost	Novost	pute	čekaње	prazne	čuvajmo	pute	čekaње	prazne	čuvajmo	pute	čekaње	prazne	čuvajmo
SRB	30	40	10	0	70	100	10	260	52,0%	238	388	221	0	609	392	230	1	622	780	451	1	1231
CRJ	10	0	30	10	30	100	0	182	46,3%	229	306	195	1	591	398	215	1	613	704	410	2	1204
CRJ	20	0	0	0	60	100	0	182	41,7%	228	311	200	2	583	399	210	1	609	716	416	3	1192
CRJ	70	40	0	80	100	100	30	120	51,7%	216	376	211	4	590	375	200	2	575	751	414	6	1165
SVK	40	40	10	20	100	100	10	320	45,0%	221	377	219	5	596	374	195	3	569	731	414	8	1165
CZE	30	0	20	0	30	100	30	210	41,0%	201	384	206	0	590	374	195	6	569	738	401	6	1159
CZE	0	0	10	0	30	100	0	140	31,0%	242	377	207	4	584	385	189	1	574	762	396	3	1138
SRB	40	40	30	40	90	100	80	410	45,0%	217	381	200	3	581	380	192	1	572	761	392	4	1153
SVK	40	30	30	0	90	100	60	370	35,0%	207	391	155	8	546	370	224	1	594	761	379	9	1140
SVK	50	60	40	10	100	100	80	410	45,0%	209	377	200	0	577	377	184	2	561	751	394	2	1138
SRB	40	40	0	0	50	100	20	230	31,6%	209	370	185	4	555	378	197	3	575	748	382	7	1130
CZE	70	30	30	30	100	100	0	380	31,7%	196	361	193	2	554	360	175	3	535	721	368	5	1089
SLO	50	40	0	10	50	100	0	250	26,7%	188	351	126	16	480	342	162	5	504	696	288	21	984

## 4. CONCLUSION

Basic information on the organization of bowling camps is published in this manual, and it is primarily intended for all stakeholders in the organization of bowling camps and can greatly help all bowling organizations as a guide for the successful organization of camps and the improvement of their work based on previous experiences.

The manual is the result of the teamwork of expert bowling coaches from the Republic of Croatia and partner countries participating in the project. Sports bowling camps should establish the basics of working with young prospective bowlers, which will be based on planning camps, organizing camps, conducting camps and controlling the health, psychological state, morphological development and motor skills of camp participants. Enormous importance at such organized camps is given to young people in mastering bowling technique and tactics.

The manual brings together information, knowledge and important facts from the sport of bowling through the organization of bowling camps. The manual standardizes the shape and form of organization of bowling camps to make it more comprehensible to the general public and provides guidelines on how and in what way to organize a quality camp.

The manual is a reference to all bodies and persons who are directly or indirectly related to the procedures of organizing bowling camps, public institutions related to sports at the local, regional and national level, schools and all interested parties. The manual can be useful to anyone who intends to conduct a sports camp, and especially in the organization of bowling camps.

The manual will be published in an electronic version (in Croatian and English) and available to everyone on the project's website. All partners will translate the manual into their native language so that it is available to a wide audience and to all those interested in the preparation of the bowling camp, primarily to "local" bowling clubs. The final version of the manual was sent to the international bowling organization and all members of the International Bowling Federation (NBC) in all translated languages.

14 00 02

