

STUDY ABOUT THE USAGE OF BODYBUILDING ELEMENTS IN THE PSYCHO-PHYSICAL PREPARATION OF UNITS WITH SPECIAL STATUS

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Abstract: *As we have mention in some other articles, the psycho-physical preparation of units with special status, those belonging to the Ministry of Interior or the Ministry of Defense, takes place based on certain regulatory provisions and has a final result the maintenance and improvement of the healthy conditions, but also the consolidation and straighten of psycho-physical system, so useful in the special mission conditions for those responsible of the maintenance and restoration of public safety, and also the ones for defense and national security.*

Among the components of psycho-physical training, the bodybuilding is one of the discipline agreed by a considerable number of person from active duty, because of well-founded reasons, from our opinion. This is the reason why we decided to elaborate the current study about this theme.

Keywords: *bodybuilding, psycho-physical preparation, sport training*

1. BODYBUILDING

Bodybuilding: definition, origin and evolution

Bodybuilding is the physical activity having the main objective to form and strengthen the complete muscular system. The scope of bodybuilding is to develop a healthy, vigorous, strong, beauty and harmonious body, throughout a special set of exercises performed using progressive resistance, weightlifting or multifunctioning equipment's. Physical exercises were practiced from ancient times, being known in Egypt, Greece, Rome and China. In the period of antic Olympics games, weightlifting was both a means to display the physical strength and a way for preparation and training. The body building is coming out of that times and is wide spread within our days.

The father of modern bodybuilding is considered Eugen Sandow (1867-1925), who, from the posture of a fragile and sickly young man, through an exemplary freewill exercises, overrun his human existence and created a wave that catches a big influence today.

In our country, the Romanian Bodybuilding Federation was founded on 11th of January 1990 by separation from the Romanian Weightlifting and Bodybuilding Federation. In reality, the basement was between 1965-1969, when it was organized under the patronage of Romanian Weightlifting Federation, the first national junior championship took place in Craiova and the national senior championship took place in Cluj-Napoca, at that times based on the tall of the persons. In our days, the individuals engaged with bodybuilding are proud to be awarded with medals during European and World championship competitions.

The definition of the term that has as a main objective the building of an ideal body, through the bulking up and develop one's musculature was finally choose to be bodybuilding. In the old U.R.S.S. the term *atleticheskaia ghimnastika* (athletic gymnastic) was used, or *ganternaia ghimnastica* in the old R.D.G and R.F.G. In Austria the recognized term was *Kraftsport* – force sport, as far as in the Anglo-Saxons countries the naming convention was *bodybuilding* – construction of the body, which is used also today.

Independently of adopted naming convention, it must be highlighted that performing a sustained effort, all the persons practicing bodybuilding are enjoying the reward of being healthy, strong, vigorous, resistant to diseases, tiredness and stress. There are implicitly positive aspects transferred to the physical plane (trust in own forces, the wish to be better, moral discipline, altruism).

Bodybuilding is a branch of physical preparation training, that consists in the development of a specific group of muscles with the help of the weights used in a repeated cycles in accordance with a predefined schedule. Even that it appear in Europe, bodybuilding got a huge spread around the Globe, mostly adopted by the young people, who wants to have a good-looking and pleasant appearance, correlated with the corresponding power.

When practicing bodybuilding the group of muscles used during the training program are growing.

The bodybuilding is accessible independent of the gender, taking in consideration the recommendations regarding the age. As for the children is not recommended, for men and even the women, bodybuilding exercises lead to a healthy person and a better tonus for musculature. As a general idea, after the age of 17-18 years, it can work with weights up to 100% comparted to the body gross.

Today, in majority of the gym training rooms, the old device used in the past are replaced by multifunctional equipment, that can ensure a big number of exercises, having an influence on all muscles groups. To facilitate the accessibility and working conditions with these equipment's, generally, a label is displayed on each equipment having a schematic of detailed possible exercises those could be executed and the influence it brings to the muscles group.

2. PRO AND CON ABOUT BODYBUILDING PRACTICE

As in any other domain of the daily activity or sport, there are pro and con elements about conducting that specific activity, analyzing the benefits and possible negative aspects of the corresponding training. What has to be remember is the fact that each activity has a specific progress when conducted and implicitly some influences on the psycho-physical system. In a short list with succinct analysis, we are presenting the pro and con elements about bodybuilding practice in table below.

Table 1. Pro and con elements about the bodybuilding practice

	PRO elements about bodybuilding practice	CON elements about bodybuilding practice
1.	Positive influence to the health	The athletic body of the bodybuilder “is useless and can be considered only a decorative element”
2.	Display of the exhausting training sessions effects is in fact a display of the science of “the body building”	The shows where the bodybuilders are presenting their self in the specific contest are sometimes considered to be silly
3.	Highlighting the body performances is the result of intense training and not the effect of one or the other equipment, and this is the reason why we have an influence on the improved moral	Aggressive publicity lead to the impression that performance can be reach only using the products of a specific company
4.	Development of the muscle volume is directly connected with the growth of power	Big muscles are just “decorative”; this is valid only in case of anabolic substances usage
5.	Specific training sessions lead to the growth of power and resistance	Growth of the muscles reduces the speed and the suppleness
6.	The practice of the bodybuilding does not require a specific “talent”; appearance of modern equipment facilitate the access to each gender and age	Weightlifting at earlier age can lead to healthy problems, especially to the spine
7.	Bodybuilding can be practices at home with the procurement of a minimal set of equipment	For higher performance a specific nutrition is necessary, that can be expensive
8.	Bodybuilding can de practiced alone without being necessary to have a team (as in the football team for example)	The individual effort that is spend can lead to a superiority complex, or unsocial behavior

3. AT WHICH AGE, WHEN AND HOW MUCH THE BODYBUILDING CAN BE PRACTICED

Taking in consideration the evolving of equipment’s and specific exercises, today, the bodybuilding can be started around 10-11 years, but this can be performed under pedagogical and medical, supervision.

In any case, according to the experts from this domain (Szekeli, L., 1977; L. Baroga, 1970) the most remarkable results are obtain between 18 and 30 years. In the opinion of these experts, the bodybuilding exercises restore the vigor of the musculature system even at 40, 50 or even 60 years.

Making a synthesis for the above expressed ideas, we can mention that not the age is the most important part when practicing the bodybuilding exercises, but the care that applies in rigorously respecting the principle of progressive adaption of human body to the intense effort conducted by the muscles.

Regarding the period and the duration of the weekly training, majority of the experts from the domain and coaches from sport in general, agree that the number of training sessions and the intensity of each round, depends on the age and the physical condition of the individual.

It is generally agreed that three training sessions per week are sufficient to obtain satisfactory results. On the same time, special attention must be given to the rest period for the body. Also, it is recommended to conduct the training on the same time interval, with one, one and a half hour before serving the meal and the duration of the effort and intensity to be well considered.

4. THE BODYBUILDING TRAINING SESSION

Lots of people “are lifting up weighs” to look good or to be in a good shape, aspects which, if negatively approached can become harmful sooner or later, or simply said it is hard to recognize the result of this effort.

Bodybuilding training needs to respect few principles, those are present in other disciplines, as following:

- *Warmup phase* – before each training session a basic set of exercises from gymnastic shall be executed to engage all group of muscles those will be involved during the training;
- *Periodical repetitions* – it is about the practicing of exercises in cycle with periodical repetition. Specialist from the domain recommend the formula: X kg \diamond 6-9*2, that means, the X kilograms weight will be lifted for 6 to 9 times in 2 sessions. The pause time between repetition is 1-2 minutes;
- *Increasing the weight* – the weight shall be increased gradually, starting with less heavy pieces and then go to bigger ones;
- *Increasing the force* – by using weights those are compounding 80-90% of the maximum lifting capacity in short repetition cycles;
- *Isolation* – it is used to straighten a specific group of muscles those were delayed or to influence a specific group of muscles those are representative for a dedicated sport discipline;
- *The maximum contraction* – it takes in consideration the fact that only after a specific period of time during the training the muscle will reach the maximum contraction and from this perspective it is recommended the maximum contraction with each movement;
- *Combined session* – it is about practicing first exercise in the first cycle, then execute the second exercise. Then go to the second cycle for the first exercise and the second cycle for the second exercise;
- *Stretching* – the bodybuilding exercises are recommended to be combined with stretching exercises for the main articulations;
- *Relaxation* – after each training session relaxation exercises must be performed followed by a resting period, lying down few minutes;
- *Nutrition* – include in the daily alimentation: eggs, milk, cream, fruits, vegetables, sweets. Liquids are recommended for skinny persons. Fat persons shall reduce the consumption of sweets, liquids and fat and compensate that with protein (meat, cheese, fruits or vegetables). The meal will be served one hour or one and a half hour before or after the training. We personally do not recommend the publicized so called “sustained effort supplements” (artificial), because of the negative effects on long term usage.

Above principles must be supplemented by healthy life (sleep well, relaxation), drop the vices (do not smoke, do not consume alcohol). With this behavior it will be ensured a higher efficacy by practicing this discipline.

5. BODYBUILDING TRAINING METHODS

We are aware about multiple existing training methods and inclusively the one related to bodybuilding. The actual trend about “going to the gym” is present everywhere. This is because of the (mostly) sedentary life of many people and the “looking good” desire, but also because of the professional activities imposed by the job, especially related to our daily activities. Having a look to our experience in psycho-physical training domain, we will make some recommendations regarding bodybuilding training methods.

For training it will be used:

- *small weights* for an increased number of repetitions (9-30);
- *middle weights* when practicing an average number of repetitions (3-9);
- *heavy weights* for a reduced number of repetitions (1-3);

The weights are classified as:

- *small* by taking in consideration 50% of the maximum potential;
- *middle* considering 50-60% of the maximum potential;
- *heavy* rendering in the range of 80-100% from the maximum potential.

The most important element that require the full attention during the training exercises is the breath. Before and after each exercise take a breath for 2-3 times. During the execution of the exercise, it is recommended to breath in the middle of the time interval necessary to the equipment used to work with to reach the end of the course.

Duration of the training:

- 60-80 minutes, 3 times per week for the beginners;
- 120-180 minutes, 4 times per week for advance practitioners.

In regard to the content of the training program, multifunctional equipment exist in all training rooms with specific profile, ensuring a large scale of exercises, many of them giving the chance to approach almost the complete group of muscles without supplemental indications.

6. NUTRITION IN BODYBUILDING TRAINING

The experts in bodybuilding training like Vince Gironda, Larry Scott, Don Howort mentioned by Sekeli Laszlo, 1977, highlight the essential role of nutrition in bodybuilder existence, and not only, arguing that 50% of their results are conditioned by alimentation.

Food is represented by any natural or processed product, which contributes to the maintenance of the vital processes of the body and sustain the specific activities at higher or normal standards. Through the burning of the nutritious substances it is obtained the energy expressed in calories, highlighting the energetic role of the food.

Consumed nutritive substances contribute to the recovery of the used or destroyed cells, but also to the forming of new cells, confirm the benefic role of food. Catalytical role is materialized through the chemical components existing in food, those influencing the assimilation and de-assimilation processes.

Normally, the natural feeding of human being is composed of the following nutritive substances: proteins, lipids (fat), carbohydrate (sugar), vitamins, water and mineral salts. The catalytic role is ensured by vitamins, mineral salts and water.

The extraction of nutritive substances from food is called assimilation or anabolism, as far as the degradation of incorporated substances or those being part of the structure of the body, is called catabolism or de-assimilation.

These two processes, anabolism, which is constructive and catabolism, which is destructive form the metabolic process representing the full amount of transformations suffered by the substances introduced in the body.

Equilibrium of the two phases of the metabolism has as a main consequence the constant weight of the body.

The protein has a plastic role in helping to form and develop new young cells and regeneration of used ones. Protein has an essential role in sustaining the life, inclusively in the bodybuilding existence, through the elaboration of energy, because of their burning, having his influence to the immunity of the body and the increase resistance to the infections.

Proteins have their roots in vegetable and products coming out from animals. The ones coming from animals could be found in meat, processed products from meat, fish, eggs, milk and cheese. Vegetable proteins are present in bread, noodles, fruits, pulses (beans, peas, lentil).

Taking in consideration that the proteins coming from animals have a bigger amount of nutritive elements in comparison with vegetable ones, these shall not miss from the bodybuilder nutrition.

Lipids (fats) are nutritive energetic substances coming from animals (butter, whipped cream, cream, fat cheese, egg yolk, lard, bacon, tallow, brain, roe, liver, fish oil) and vegetables (olives, peanuts, nuts, almonds, sunflower seeds, pumpkin seeds, soy, beans, groundnuts, maize) having an energetic role, protecting and regenerating internal organs. The lipids are representing the support for soluble vitamins: A, D, E, F, K.

Carbohydrates (sugar) represent an important source of energy, being also a consistent source of fat that is stored under the adipose tissue. The food reach in carbohydrates is represented by sugar, honey, candy, syrups, jams, marmalade. Vegetable products containing carbohydrates are: cereals (wheat, maize, barley), noodles, dried fruits (plums, apricots, figs, raisins, dates), pulses (beans, peas, lentil, soy), bread, potato, fruits and vegetables.

Making a synthesis about what has been mentioned above it needs to be taken in consideration to avoid the consumption of carbohydrates in big quantities, being used by the person who is following the training program based on the scope to be reached: gaining weight - consistent amount of protein, lipid and carbohydrates, reducing the weight - usage of carbohydrates in small amount.

7. THE ROLE OF VITAMINES, WATER AND MINERAL SALTS

Vitamins have a big importance in the metabolic processes between cells, in the growing and development of the cell, because they facilitate the different chemical reactions being indispensable to the human alimentation and much more to the bodybuilding. Obviously, exaggerated consumption can lead to bad effects like kidney failure, digestive troubles, nervous and cardiovascular disorder.

The practice from the domain has proven that the usage of an increased amount of C, B₁, B₆, E vitamins will improve the resistance to effort, reduction of the restoration time and implicitly to higher performance. Consumption of vitamins in natural forms is more efficient than the drug form.

In a short overview we will analyze the role of vitamins for sport practitioners and normal people, with special particularities for bodybuilders.

Vitamin A is absolutely necessary to the visual system, straighten and regenerate respiratory, digestive, urinary skin and mucous, preventing the loses of hair, infection, renal or bile failure.

It can be found in products coming from animals (butter, milk, cream, egg yolk, beef liver, roe) and vegetables as carotene (carrot, beet, radishes, tomatoes, spinach, parsley, cabbage, pepper, eggplants, pumpkins, beans, green pea, apricots, peaches, cherries). Daily usage can be 2mg in case of high effort.

Vitamin B₁, has an important role in carbohydrates, lipids and proteins metabolism. It reduces the stress, it facilitates the transmission of the nervous momentum and contributes to the resistance to effort. It can be found in vegetable (green bean and peas, beet, cabbage, potatoes, spinach), peel cereals, yeast, whole meal bread. The daily usage for an adult is about 1,5-2mg and can reach 5mg for a bodybuilder.

Vitamin B₂, enrich the contraction of the musculature and the resistance to effort. It can be found in peel cereals, yeast, green vegetables and fruits, beef, liver, heart, kidney, milk, eggs, cheese. Daily usage for an adult is about 2-3mg, for bodybuilder is up to 8mg.

Some other important vitamins from B group, required by bodybuilders and not only, are Vitamin B₆ and Vitamin B₁₂.

Vitamin C has a great contribution to the body: it is used for carbohydrates, lipids and proteins metabolism, facilitate the iron resorption, it delays the appearance of tiredness. The sources rich in vitamin C are hawthorn fruits, strawberries, white and red cabbage, blueberries, citrus, green onions, nettles, garlic. The daily requirement for an adult is 1mg per body Kg. For bodybuilder is increased up to 200-250 mg.

Vitamin D is an important role in musculature tonus. Sitting in the sunshine helps in fixing this vitamin.

Vitamin E facilitate the growing and reproduction processes, assimilation of calcium and phosphorus, increases the functional capacity of the muscles and contributes to the adaption of the body to higher efforts. Lack of vitamin E can lead to muscle atrophy. It can be found in the green parts of the plants (germinated wheat), peel grasses, peanut or olive oil, dark bread, lettuce, meat and beef liver. The daily requirement is 10-30mg and for bodybuilder is 50-70mg.

Water is the vital element for the body. Its 48 hours missing from body can lead to severe troubles and if that situation persists for 4-5 days can lead to death. Water has a bio-catalytic function and represents the environment where the vital processes and reactions take place in the body. An individual requires 2,5 liters of water daily and for a bodybuilder this can reach 3-3,5 liters. It is not recommended to consume a higher amount of water because it hinders the activity of the heart and kidneys. During bodybuilding training it is recommended the consumption in small amount (alkaline water, fruit juice, cold tea with a lot of lemon).

Mineral salts are indispensable to life, having a plastic role (calcium salts, phosphorus, sodium, potassium, iron) and catalytic (copper salts, iodine, cobalt and iron) being part of the skeleton system as essential elements of the cells; adjusts the nervous and musculature excitability. It can be found in the main products coming from animals or vegetables.

8. WHAT WE EAT, WHEN WE EAT AND HOW WE EAT

What we eat? The complete range of food mentioned above can be consumed with moderation. It is recommended to avoid sauces and fats. Milk and cheese, yogurt, meat, fish and all their derivate, eggs, vegetables and fruits, cereals and legumes products, sugar products shall be consumed in moderate quantities. Fats also shall be consumed with care regarding the quantity. It can be consumed drinking water, mineral water, fruit juice, tea and coffee. Drinking alcohol regularly is bad for the body. Wine and beer are acceptable in moderate quantities.

When we eat? Generally, it is recommended to serve the meal at a fix hour. Shall not eat too much once. The breakfast shall be a must have meal. Take care of the saying: “the breakfast shall be served alone, take the lunch with a friend and the dinner give it to the enemy”. Do not take the meal one hour, one and a half hour before or after the training. Dinner shall be light and shall be take it two hours before going to bed.

How we eat? Mastication shall be low and complete, in a pleasant atmosphere with tasty and nice looking food. It is not recommended to serve the meal when you are nervous and side activities are to be avoided (reading the newspaper).

9. TECHNICAL RECOMMENDATIONS FOR THE MAIN MUSCLE GROUPS

Taking in consideration the daily schedule, which is full of activities and the insufficient or mediocre presence of equipment in the psycho-physical training rooms for the preparation of the employees of the two directions of national security department, we recommend: departure and proximity of arms with weight in hands from sitting or supine position, drawing bumper lying, raising the arms from standing, various exercises with bent torso, back squats with dumbbell, raising the legs vertically from lying posture, bending the sides of the torso.

We are recommending the most accessible exercises for the main group of muscle:

⇒ Neck and lower back muscles

Strong lower back muscles is the center of the force, since almost every movement performed imply these muscles. This is the reason why a special attention must be taken to avoid the injuries of this zone. As for the methodic of the exercises, the majority of experts from the domain recommend to keep the back straight or even arched in the lumbar area during the practice for lower back muscles.

For lower back muscles, the most efficient and usual exercises are: alignment, hyperextensions (lying down on the bank, facing the ground, extending the torso starting from the fixing point of the bank, from the ground to the maximum extension of the torso); alignment/extensions with dumbbell at shoulder level, twists with barbell on shoulders, twists consecutively with barbell held on chest, side bending/arching with barbell on shoulders, bending the torso forward, lying down facing the sky, from inclined bank of soil. Raising the torso to the vertical, hanging trellis and back support, supported on sloping bank, supported on gym box; moving aside the legs from lying down position.

For the neck muscles we recommend: flexing and extensions against the resistance of the own arms those are moving in the opposite direction of the movement; extension of the neck with weights, disk attached to the neck with a strap; defeat the partner resistance who is forcing the neck; bridge forehead, bridge with bar at chest, bridge with bar on abdomen, bridge with back support neck.

⇒ Shoulder muscles

Strong and well defined shoulders it is a manhood, power and healthy symbol. Deltoid muscles have an essential role in sport and daily life activities. From the most usual and efficient exercises for this group of muscles we recommend: push by the nape of the dumbbell from seated on the bank position; push from the chest from lying down position, pushing forward of weights from seated position, sailing from standing position, balancing the arms from bending position, balancing the arms using a pulley, side balancing, rising up the hands in front of the body, side rotation of arms using small weights, rotation of shoulders.

⇒ Back muscles

Back muscles are giving “prestige” and force. Weak development of lumbar region has as a side effect vertebral troubles or affections.

Starting from simple to complex, we will give sample exercises: traction to the bar with palms facing outside, traction to the bar with palms facing inside (with action to biceps and the big dorsal muscles), traction to the bar with large distance between arms, traction using special bar (a curved bar applied to the normal bar) or a rope, extension of torso from laying on the bank position, traction using force equipment from sitting position, sailing from mounting on the bar position, sailing using a pulley, standing up using the dumbbell, bending using the dumbbell.

⇒ Arm muscles

In daily life or in sport activities, strong and nice arms are imposing respect and admiration. There are numerous exercises for arm muscles and are simple and efficient.

Selectively, we will mention: traction with the palms facing inside, push ups using parallel bars, push ups using the hands, flexion of forearms using heavy weights, flexion of forehands using weights with elbow fixed on bank, flexion of forearms using a dumbbell with weight loaded on middle, flexion of forearms using a force equipment, bending and stretching the arms using small weights, flexion and extension of hands.

⇒ Chest muscles

Voluminous chest with well defined muscles is necessary as far as the heart and lungs are protected by it. The exercises for breastplate muscles need to be selected in a logical order to work constantly with muscle groups, with special attention to the number of series, used weights, the tempo of repetition, break between series, the execution style and probably the most important aspect, the mental attitude.

From the various number of existing exercises, we select: push ups, pushing from horizontal sitting, pushing in the oblique plane from sitting position, pushing from declination sitting, horizontal twisting, oblique twisting, twisting using a pulley, rising the hands laterally with hyperextension, rising the hands laterally up to the head from lying down position, traction to the force equipment.

⇒ Abdomen muscles

The muscles of the abdomen are very important in maintenance of the health, protecting the internal organs. Keeping in mind that in the daily activities the abdomen muscles are not so used, these are becoming weak and reducing their protecting role.

There are many exercises for this group of muscles and as a resume: balancing the legs left and right from sitting position, pushing up the legs from sitting in an oblique plane, pushing the legs from hanging position, rising the torso with the legs uphold on a bank, rising the torso from sitting position, pivoting the torso with dumbbell on the shoulders, laterally bending the torso with or without dumbbell, pivoting the torso using small weights, sitting on shoulder blade fixing the bank edge pushing the shoulder blade.

⇒ Leg muscles

Taking in consideration that the legs are “the pillars” sustaining the body, these must be strong and slender as a symbol of youngness. Generally, the exercises for legs are executed using heavy weights in comparison with the other muscle groups.

There are many different exercises for these muscles: genuflexion, genuflexion with dumbbell on shoulders, standing up exercises, pushing on the force equipment, half performed genuflexion with the dumbbell on the shoulders or on chest, extension of thigh using the equipment, flexion of thigh using equipment, lunge with the dumbbell on shoulders, jumping genuflexion (with dumbbell on shoulders), one leg genuflexion.

10. TRAINING PROGRAM

We would like to finish our journey through “bodybuilding” discipline recommending two sets of exercises. As the majority of the experts are saying “The usage of super-protein will lead unconditionally to a well-developed musculature, is a wrong understood idea. To increase the muscles volume and the force, the bodybuilding shall be practiced based on a concrete training program, following a defined set of the exercises, taking the necessary time to rest.” using the experience of cited author, we will give two training program those have been used personally with great results.

First program: exercises using 0,5-2kg handy weights

1. Standing, raising the hands laterally and bring it back to the normal position. It will be executed two series with 8-9 repetitions.

2. Standing with hands raised laterally perform rotations back and forward. It will be executed four series with 8 repetitions each. It helps to develop the deltoid, chest and large dorsal muscles.

3. Standing with the arms raised, rotation of the body to the left and the right side in the horizontal plane. It will be executed two series with 8 repetitions in both directions. It helps in the development of the pivoting muscles of the torso.

4. Standing with flexed arms keeping the weights at the shoulder level, bending the torso forward and come back to the initial position. It will develop the extending muscles of the torso, mainly the groups between vertebral.

5. Standing, execute genuflexion using both legs. It will be executed two series with 12 repetitions each. It will develop the flexor and extensor muscles of the legs.

6. Standing, raising the legs to the tip toes and return. It will be executed two series with 24 repetitions each. It will develop the flexor and extensor muscles of the calf.

7. Sited with the palms fixed back on the ground, raising the legs 30-35cm from the ground executing side movements, left leg moving to the right side and right leg moving to the left side. It will be executed two series with 15-20 repetitions each. It will develop the abdominal and thighs muscles.

8. Running in place on the tip toes with the knees up for about 3 minutes.

Training session will be finished with breathing exercises and take a warm shower and, if possible, massage session. Important remark: the breaks between series and exercises can vary from 1 to 3 minutes, depending on each individual.

The second program: exercises using 5-7kg handy weights

1. Standing, flexing the arms alternatively in the direction of the shoulder. It will be executed two series with 6-12 repetitions. It will develop the biceps muscles.

2. Standing, with the arms flexed on the shoulder level, raising the arms upwards simultaneously and return. It will be executed two series with 8-16 repetitions. It will develop the deltoids and triceps muscles.

3. Standing with the torso bended forward and the arms hanging, flexing the arms simultaneously and bringing the weights to the chest, then return. It will be executed two series with 9-12 repetitions. It will develop the arms flexor, rhomboids, trapezius, large round and small round muscles.

4. Standing with the torso bended forward and the arms pointing forward, straightening of the torso and return. It will be executed two series with 12-16 repetitions. It will develop the sacro-spinal muscles, the muscles between vertebral and spinal muscle.

5. Standing, genuflexions with the weights in hands. It will be executed two series with 16-22 repetitions. It will develop the flexor and extensor muscles of the legs.

6. Lying down facing the sky, arms flexed with the weights on the chest, push up the hands and return. It will be executed two series with 6-9 repetitions. It will develop the pectorals and deltoid muscles.

7. Lying down on a inclined gym bank, hands behind your head and feet resting on a fixed slat ladder, raising the torso to the vertical plane and return. It will be executed two series with 10-12 repetitions. It will develop the abdominal and thighs muscles.

8. Jumping to a 40-50cm high object starting from one leg. It will be executed two series with 15-20 repetitions. It will develop the flexor and extensor muscles of the legs.

Training program will be finished with a light run, walking and breathing exercises.

11. CONCLUSIONS

As every article aiming for a prestigious academic presence, we will not finish without concluding the recommendation of bodybuilding as an efficient discipline for the psycho-physical preparation of military or employees from the maintenance of public safety departments. These are the conclusions from our study:

- In a world where the time is compressed, where daily or professional activities are various and multiple, the practice of bodybuilding can constitute an alternative for the psycho-physical preparation of employees from Ministry of Defense and Ministry of Interior;

- Practicing of bodybuilding is improving the general healthy condition;

- Defining an athletic body as a direct effect of the bodybuilding practicing is a desiderate for the modern people, a desire that is present from the ancient times;

- Since the bodybuilding exercises can be practiced at home – conditioned by a minimal set of equipment and the availability of space – it is preferred to the other disciplines those require the presence in special environment and time implicitly (stadium for athletics);

- Practicing the bodybuilding exercises based on the training principles imply the study of available documentation from the domain and the increase basement for the knowledge implicitly;

- Development of an imposing and nice body takes place on the same time with an increasing straight that leads to an improved efficacy in the mission execution;

- Complementing the bodybuilding exercises with elements from other different sport discipline (swimming, athletics, gymnastic) lead to a diversification for preparation and enriching the coordination skills;

- Learning training exercises using weights can become a hobby and constantly practice impose a healthy life regime without smoking, drinking alcohol or loosing nights;

- Practicing the force training will have a positive transfer effect, influencing the moral-volitional skills and motive aspects, those being essential elements for our specific activities.

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