
Trends in Soviet Strength and Conditioning

The Role of All-Round, General Physical Preparation In the Multiyear and Yearly Training Programs

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A few years ago, a Soviet team came to San Diego after playing the national U.S. team the previous night. They were going to play the U.S. team again that evening. Upon arrival in the afternoon, they asked for an open field game of soccer with no time-outs for out-of-bound balls, etc. After 30 minutes of play they lined up and did a series of about 10 different depth jumps. Play then resumed for another uninterrupted 30 minutes. During the game, a group of U.S. newsmen and T.V. reporters had come upon the scene and asked, "Which soccer team is this?" The answer, much to their surprise was, "That's not a soccer team, that's the Soviet Volleyball Team!" That evening the Soviets beat the U.S. team in three straight games. Does this show what kind of physical condition they were in?

This phenomenal conditioning—playing a full 60 minutes of continuous soccer broken only by the execution of sets of jump exercises before a major competition!—is largely due to the role of all-round general physical preparation in the Soviet sports training system. It is used both in preparing a youngster to become a skilled athlete and in improving the fitness of high-level athletes.

The Soviets have devised a system of athletic preparation based on multiyear and yearly periodization (stages of training). The periodization of the total training program evolved from their extensive sports research and from the practical experiences of the coaches. And, the system is basically the same for all sports.

As used here, the term **periodization** means the establishment of certain time periods for the development of particular physical, mental or technical qualities. These time periods are considered as stages of training in which the athlete develops particular qualities, with each one leading in a definite progression to the ultimate effort in competition: to peak in major competition after yearly training or training for a certain number of years.

The progression followed in the periodization of training is basically the same, whether it be in the multiyear or

yearly training program. In the first stage there is all-round, general physical preparation which lasts several years in the multiyear program and several months in the yearly program. It is followed by specialized preparation which lasts many years in the multiyear program and several months in the yearly training program. After these two stages, there is the competitive period which, again, lasts many years in the multiyear program and several months in the yearly. The exact length of time for each of these periods, whether it be for the multiyear or yearly program, depends upon the sport, the age of first beginning training, the level of physical preparation and other factors.

Multiyear Training

In the multiyear periodization, the first stage is devoted to all-round general preparation of the individual. Developed in this stage are all the physical qualities needed for sports. This includes muscular strength and endurance, flexibility, agility, dexterity, cardio-respiratory endurance and so on. In addition, the basic skills such as running, throwing, jumping, hitting and kicking are learned and developed in conjunction with the basic playing skills of many different sports. In other words, the early years are for the formation and development of all the basic skills and physical qualities needed in order to play on a high level in later years.

All-round development of the athlete is devoted to development of the many-sided volitional qualities, harmonious development of the musculature and motor qualities, outstanding work capacity of the heart-circulatory, respiratory and other body systems, diverse skills to coordinate movement and physical improvement as a whole.¹

The principle of all-round development comes from the concept of body wholeness. That is, from the close interrelationships between all the organs and systems and the psychological and physiological functions. The many and varied changes that take place in the sepa-

rate organs and systems as a result of training are always interrelated; these changes always show on the activity of the whole body. When there is a change in the state or function or action of any one body part, it will have an effect on another part or system. This is why the Soviets firmly believe that there is no such thing as one-sided preparation in sport. There may be specialization in one sport, but it does not mean that the athlete only trains in the one activity.

Raising the level of all-round development is the basic foundation for achievement of specialized physical preparation. It is also the basis upon which technical mastery and an increase in the training effect can be achieved in any sport. The all-round preparation, therefore, is the base upon which sports specialization rests and upon which the concomitant physical and mental components can be developed. This is especially true in the early years.

The principle of all-round physical preparation requires the use of many varied methods and physical exercises in order to have a positive effect on all the body organs. Because of this, in the first stage of multiyear periodization, youngsters are taught many different sports which, in turn, are later used in the trainings of specialized high-level athletes. The different sports are used as a means of relaxation and, more importantly, as a means of developing some of the physical and mental qualities.

Keep in mind that when the youngsters are taught many different sports, it means that they develop permanent skills. It is not mere exposure to a sport or sports skills for one or two semesters or for a few weeks. Sufficient time is devoted to the different sports so that the young athletes learn to play quite well. Many times the development will be such that the individual will be hard pressed to choose "his sport" when the time for specialization comes.

There are many recorded cases where the athlete had to choose between gymnastics or ballet, volleyball or basketball, track running or a jump event, speed skating or hockey and so on. In addition, proficiency in more than one sport has

also enabled a coach to determine the strong and weak points of an athlete as well as his major likes and dislikes.

Yearly Training

In the yearly training program, all-round general physical preparation also plays a very important role. However, rather than being used for the development of various physical qualities, it is used to raise the level of these qualities from year to year. By the time an athlete begins serious training (specialization), he has already developed all the physical qualities needed for the particular sport. They now only need to bring them to a high enough level to be able to compete on the desired level of competition.

For example, we can use a track and field jumper as an illustration. First the athlete has already achieved certain standards before being admitted to the sports school. From previously established norms, the coaches know what he must be able to do in various "control" tests as, for example, standing vertical jump, with and without use of the arms, standing long jump, squat, jump-out-of-squat, underhand throws of a medicine ball, sprinting and acceleration, etc. Every year specific results are planned for in each of these tests and general physical preparation is the means used for such improvement.

The records kept for establishment of these norms or for comparison purposes are revealing. For example, it was found that Brumel, the high jumper who practically "owned" this event in the 50's and 60's until his accidents, was able to jump about 90 cm in the standing vertical jump with use of his arms. Yashchenko, who set a world record in the high jump several years ago (which has since been broken), could jump 110 cm *without* the use of his arms!

Therefore, in the yearly training program general physical preparation is used to raise the level of all the physical qualities in the first stage of training after the competitive or transitional period. The improvement takes the form of a straight line, i.e., a gradual increase from year to year with no decreases. There are, of course, some drops and rises if graphically presented but they fall within the normal range of development.

The key point here is that there are no major or big losses in any of the physical qualities in the yearly cycle. The gains experienced by the athlete in the period of all-round general physical prepara-

tion are either maintained or continue to be developed (depending upon the sport and level of preparation) throughout the year. The maintenance or continued development in the competitive period is usually accomplished by the trainings undertaken by the athlete. In other words, the training in the competitive period is of such intensity that it will not allow for any losses, especially in the area of strength.

If during the competitive period there are losses in any of the physical qualities needed in the sport, supplemental work is done to raise it back to the needed level. The Soviets believe this is most important, since without it, the athlete will not respond or develop those abilities or qualities being worked on during the competitive period.

A good example of this is the middle- and long-distance runner. Running alone, it has been found, is not sufficient to maintain all-round fitness. Because of this, general physical preparation is also carried on during the competitive season for maintenance.

Examination of all-round physical preparation in the yearly training cycle of top Soviet athletes shows the diversity of methods used. (See issues of the *Soviet Sports Review* for many examples.) Many times the qualities worked on may also appear to be quite extreme in comparison to the competitive event. For example, running for weightlifters, swimming for track and field, gymnastics for track and field, basketball for wrestling, soccer for chess and so on.

It is interesting to examine running for weightlifting a little more closely. Not only does it help to develop an aerobic base which is especially needed in recuperation, but it also helps in the development of anaerobic capabilities and of leg power. In fact, top ranked weightlifters are the fastest accelerators and sprinters for very short yardages (10-20 yards and, in some cases, much more). They can even beat the best sprinters!

The use of basketball in wrestling is also very interesting. I can recall a situation about 8 years ago when the Soviet wrestling team competed against the U.S. The Americans were so impressed with many of the Soviet moves (aside from their total victory) that they asked the Soviets to hold a clinic for them. The Soviets responded affirmatively and the next morning we went to the local university for what the Soviets said was a typical work-out day. The first thing the coaches asked for was a basketball. With the Americans also participating, they

then proceeded to play full court basketball for 30 minutes. After this, they did various calisthenic-type exercises, including sit-ups, push-ups, stretches, rolls, etc. This went on for about 20 minutes and then the Soviets announced that they were ready to wrestle!

Since that time, the U.S. has developed tremendously in wrestling and took second place behind the Soviets in the '82 World Championships. The Soviets, however, still give many indications of their all-round high level preparation (in addition to winning a medal in each weight category). During their match, a Soviet wrestler (who weighed 190 lbs) lifted his American opponent (who weighed 180 lbs) on to his shoulders, spun him around 360° three times and then threw him on his back for a pin.

Lastly, according to Verkhoshansky,² on the highest level of sports mastery, an athlete does not achieve his best performance as a result of greater strength or endurance or other physical quality. He stated that "contemporary ultra-class athletes have **higher** and relatively **uniform** development of **all** those qualities which are primarily responsible for sports success." In other words, world class athletes have all the needed physical qualities developed to the needed physical level, not just what appear to be the most visibly evident qualities.

In conclusion, there can be no substitute for all-round physical conditioning for all athletes. In order to reach one's highest potential, one must have a very solid all-round base. This includes the development of all the physical qualities such as strength, endurance, agility, flexibility, power and the many mental qualities needed. Development of these qualities is needed before beginning sports specialization and to serve as a base upon which high-level specialized work can be done. Development of those qualities is achieved through various diversified means including the use of many different sports. Only in this way can an athlete develop his full potential and reach his highest heights.◊

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of effort are expended in achieving ever-diminishing increments of performance improvement. The means for defying this law of nature have not yet been devised. •

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