

“The Moment Of Readiness”
(Development Of Competitive Form In Hammer Throwers)
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In this article an attempt is made to shed light on certain significant, but yet inadequately resolved problems that relate to the workouts of hammer throwers during the period of acquiring and maintaining form. It is hoped that this will help coaches and athletes to take a creative approach to planning this critical phase of training, to rethink their actions, and to learn to make operational decisions that will pave the way for better performances in major competitions.

It is conventional to call the phase of the sportsman's optimal readiness for top performances “sports form” (competitive, form).

The timely determination of this optimal condition in hammer throwers is of much practical significance, because it is necessary to make certain (sometimes significant) changes in controlling the development of competitive form and its maintenance at a high level-during the period of the most important competitions.

Competitive form is characterized by maximal (for a given period) development of one's physical qualities, a wide range of functional capacities, and a high level of mental, tactical, and technical preparedness.

To be constantly ready to make record performances is the dream of every hammer thrower. Unfortunately, though, it is impossible to be in the highest phase of competitive form all the time. Hence, one speaks of the ability to achieve high, consistent performances in the major competitions. This is the task that faces athletes and coaches. In order to accomplish this task one must first achieve an optimal combination of physical qualities and technical mastery, with which the throwers will be able to exploit his motor potential to the maximum. It is essential to bring the sportsman's body to the point where he is able to execute a portion of his training at high intensity. This relates chiefly to the throwing of implements of different weights (overweight, competition weight, underweight). It is imperative for the throwers to achieve a clear differentiation of effort when switching from implement to implement. Only when a sportsman is able to “order” a specific distance in any training throw (at the beginning, middle, or end of a workout) and execute the “order” at an accuracy of up to 0.5 m can one speak of the emergence of a “feel” for the implement and of rhythm (all of this is called “movement sense”) and the thrower's ability to control his motor actions.

The emergence of a specific muscle sense (feel), is the first sign that a sportsman is starting to acquire form, and it occurs prior to a qualitative leap in performance.

From this moment the coach must listen very attentively to the athlete's assessment of his own condition. His work capacity increases, being conditioned by two factors: firstly, by an increase in the functional capabilities of his bodily systems (a more active metabolism, activation of the most complex biochemical reactions, more thorough regulation of energy expenditure processes and recovery processes); secondly, by an increase in the sportsman's emotional state.

This is a very important period. On the one hand, the athlete's increased work capacity and improved hammer throwing performance evokes a desire to work even harder; on the other hand, the increased loads, as practical experience shows, may evoke a decline in throwing performance, throw the athlete out of balance, and postpone the attainment of competitive form.

The coach's knowledge of the thrower's individual characteristics and his knowledge of the athlete's ability to execute the volume and maintain the intensity in throwing and strength training are of enormous importance. On the one hand the throwing and strength training must be adequate for further improvement of the thrower's condition; on the other hand, it should not produce a state of overtraining.

There are no prescriptions for this period that always apply for every person.

The interrelationship between training volume and intensity during this period has been experimentally examined; however, it requires a more precise definition in each individual case.

It has been demonstrated that both the volume and intensity (of the load) should be reduced somewhat. However, the level of this reduction - especially the number of hammer throws of different weights, executed for maximum distance - is determined experimentally for each athlete. It is also necessary to determine for which training methods volume and intensity should be reduced, and for which methods volume and intensity should be increased. In practice, for example, some throwers employ weight training right up to the very competitions; others exclude weight training from workouts for a period of 10 - 20 days prior to competitions, explaining their action by the fact that weight work worsens the thrower's specific sensitivity and is a hindrance to improving the delicate coordination that constitutes the hammer throwing movement.

During this period many sportsmen employ throwing of only competitive-size implements, striving to stabilize their rhythm and the interaction of the body's motor links. Some throwers try to avoid joint workouts with their main rivals (especially during the short training camps prior to competitions), and others generally prefer only individual workouts alone with their coach. What does this relate to?

It is impossible to escape the factor of the personal relationships between throwers, their psychological compatibility. A successful training attempt (throw) by a potential competitor may evoke undue excitement and turn the workout into a veritable contest, which leads to considerable nervous expenditure. This certainly does not mean that one must always avoid situations that have the potential to “blow-out” a thrower, to throw him off balance. One must experience such conditions in order to develop tactics. But there are stages in the training of each thrower (and this relates to the period of reaching top competitive form), in which negative factors should be, as far as possible, eliminated - and conditions created in which the athlete will be able to approach competition physically and psychologically fresh and to surpass his personal records.

Evidently, this is one of the reasons that motivate some throwers to train alone during this stage.

A condition of competitive form, as with any other human condition, is not stable. It is characterized by ups and downs: today everything goes well and the expenditure of nervous energy is insignificant. Tomorrow (or several days later) there are flaws in movements; the sportsman feels some dissatisfaction, flatness, becomes irritable, nervous. This may provoke a desire to stop training or, on the other hand, to continue workouts until the return of the feeling of the previous successful throws. How is one to proceed in this circumstance? Should one stop training, try to decipher the reasons for the deterioration, and preserve physical and nervous energy... or continue training, striving to bring back the temporarily lost sensation? The answer to the question depends a great deal on the athlete's characteristics. In most cases, though, and especially when the athlete is in competitive form, it will be most appropriate to stop training. At this juncture it is important not to give in to emotions, but to adopt a reasoned, well-thought-out decision, to weigh all the pros and cons and display a certain resolve.

The sportsman's ability to control his actions is very important during this period. It is necessary to arm the sportsman with the “technique” of self-regulation, since participation in competition primarily requires the ability to control oneself in special (extreme) conditions.

The sportsman's will, directed primarily at overcoming himself, is a critical factor in controlling his actions.

This important quality can be nurtured only by means of volitional self-regulation during the process of long-term training and competitive activities. It can be realized on a level of adequately high conceptual, mental, tactical, physical, technical, and theoretical preparedness in the athlete. This combination of factors is characteristic of competitive form.

Sechenov wrote: “The will is not some impersonal agent, dealing only with movement. It is the practical side of the intellect and moral sense, controlling

movement in the name of one or another - and often in defiance of - a sense of self-preservation.” In sport this attribute is manifest especially vividly. Investing every ounce of his power into the battle for victory, the thrower must learn to “switch off” the instinct of self-preservation. “To yield everything for victory, to lay everything on the line” - these and similar motivations are typical of athletes; but it is necessary to nurture them over the course of one’s entire sports career.

The will is developed and becomes manifest in actions that are oriented toward the attainment of consciously specified goals. This goal, as a rule, determines the manner and character of the person’s actions. In this manner, the conquering of oneself is the essence of volitional efforts, the essence of the will as the supreme regulator of human actions, conduct, conditions, and behavior in all spheres of life and activities, exhibited especially vividly in sport and most significantly - in the competitive form state.

During this period the thrower’s self-regulation techniques should be at the highest level and should be oriented toward controlling his activities and conditions, economization of his strength, correction of his technique, diversion and switching of his attention, and ideomotor training.

Ideomotor training is of definite value to a hammer thrower, especially during the period when competitive form is being acquired.

The sportsman’s “analyzers” (body receptors and feedback mechanisms) possess heightened sensitivity during this period. For this reason, a mental “loss” of a throw as a whole makes it possible to obtain the entire gamut of movement sensations, including its physiological nuances (quickening of the pulse, interrupted breathing, perspiration, etc.).

Practice shows that if a sportsman does not have full clarity (and consciousness) during execution of movement, this fact will become compellingly clear during its mental reproduction, being expressed in incorrect movement structure. The phase of movement, during whose execution the sportsman lacks clarity in its reproduction (and intelligent understanding), “falls out”, as it were, during imaginary reproduction, and the mental (imaginary) movement is interrupted. And even multiple attempts at its reproduction - accompanied by volitional concentration (and with reliance on one’s past experience) - will not produce the desired effect. This fact indicates that the throwers must, during the period of acquiring top competitive form, allocate some time for the purpose of improving this phase of the throw during its entire execution.

Ideomotor training also makes it possible to control the sportsman’s emotional state. If a thrower, mentally reproducing the movement (sometimes said “spinning” the movement) “I take the hammer, enter the circle, start my preliminary swings...”, feels a significant increase in his pulse rate--up to 120-130

or more beats/min--this is indicative of his significant emotional "high" (stimulation).

If the sportsman says to himself "I am sleeping" for a period of 10-15 sec immediately after completion of the "throw" and his pulse returns to normal, then we can say that he has good control over his emotional state. If, however, the pulse does not return to normal, it indicates that there was significant excitement existing beforehand. This should stir the coach and the thrower and force them to seek ways of getting rid of the undue excitement.

One should combine mental (imaginary) reproduction of the movement with "real" actions under conditions that model the most diverse and the most, as it were, improbable training and competitive situations, after which their selection and evaluation is essential.