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# TRAINING ADJUSTMENTS FOR THE NEW MATCH STRUCTURE

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## INTRODUCTION

Having become a business factor, sports have become a show for mass needs. Public communication /media has annexed sports, in such a degree, that great part of sports rules had to be transformed according to the needs of media. The power of the media is out of doubt. But the wrestling has to pay a heavy price for these frequent changes in the rules lacking any scientific demanding. The number of falls, and technical points for a time unit has decreased, which unambiguously means the devaluation of the contextual value of wrestling, although the length of the bouts shows the same tendency. It is time to reverse the negative trend.

**Key-words:** wrestling, media, olympic profit, falls, rules.

## METHODS

The followings were applied during 2025 bouts (Olympics, World Championships: WCh'85, Atlanta '96, Athen '04, WCh. '05, WCh '07, Beijing '08)

Direct recorded information from the minutes of the bouts

- number of bouts
  - duration of bouts
  - number of falls
  - number of technical points
- Indirect observation methods
- simple attack
  - complex attack
  - attempted attack and completed attacks are registered on a special survey sheet

## RESULTS

1. As a result of the changing rules of the past years, wrestlers have minimised their actions initiated from standing, have decreased the number of their complex, but spectacular actions, have set themselves for holds worth one or two points. The number of falls and technical falls dramatically decreased in the past years, so - although suitable to TV broadcasting - wrestling has gradually lost its spectacle and spirit.

2. The number of technical points for a time unit decreased, which unambiguously means the devaluation of the contextual value of wrestling, although the length of the bouts shows a tendency to before changes 1985.

## DISCUSSION OF DEVELOPMENT PROPOSAL

- THE WRESTLING RULES SHOULD BECOME UNDERSTANDABLE
  - COMPETITION SYSTEM
- (Area where the popularity of wrestling could be increase is team championships)

## WEIGHT MANAGEMENT

Sadly, this chapter is relevant as Jung Se Hooni, a Korean judoist, champion at the Universiade in the 65 kg weight category, died as a result of excessive and drastically fast weight loss. In December of 1997, the United States Food and Drug Administration initiated proceedings as a result of the deaths of three young American wrestlers. The agency investigated whether the substances taken by the athletes before competitions led to their tragic deaths. In order to lose weight, the three talented wrestlers, Billy Jack Saylor (19), Jeff Reese (21), and Joseph LaRas (22), were taking an unnamed substance that was not listed on the prohibited list. The desire of wrestlers to compete in lower weight categories in good physical condition, as if that were their "regular weight," is as old as weight categories themselves. However, these desires are only rational if they do not inhibit performance, and is recommended only for adult and adolescent groups. Current rules in effect (weighing in on the preceding day of the competition) encourage weight loss!! This example might seem extreme, but even today's top adolescent competitors drop 10-12% of their weight before large competitions in their age group.

## REVIEW OF TRAINING METHODS

### SPEED STRENGTH

In wrestling, explosive strength is expressed by the speed of the technical tactical actions used against the opponent. Fairly large outside forces and resistance have to be overcome, since the opponent, whose body weight is similar to the attacker's, has to be thrown, twisted, or forced to the mat from a standing position. When executing a hold technique, there is a need for a large amount of initial acceleration to be able to unbalance the opponent and to refrain from providing the opponent with the time necessary to neutralize the forces that are striving to unbalance him, which basically means the opponent attempts to regain his balance. This also makes it very difficult to perform counterattacks. Since wrestling involves combating great resistance, a wrestler's focus should be on maximum strength and explosive strength.

percent of maximum power	Slower wrestler			Faster wrestler		
	repetition	series	rest (min)	repetition	series	rest (min)
20%	16	2	3-4			
30%	11	3	3-4			
40%	10	3	3-4			
50%	9	4	3-4			
60%				6	1	3-4
70%				6	1	3-4
80%				5	2	3-4
90%				3	2	3-4

### The ATP-PC System

If you train any of your wrestlers at high intensity you must understand how this energy system works. Here's a simple explanation of energy metabolism shown in figure 1. As the name suggests the ATP-PC system consists of adenosine triphosphate (ATP) and phosphocreatine (PC). This energy system provides immediate energy through the breakdown of these stored high energy phosphates. If this energy system is 'fully stocked' it will provide energy for maximal intensity, short duration exercise for between 10-15 seconds before it fatigues.

All three energy systems contribute at the start of exercise but the contribution depends upon the individual, the effort applied or on the rate at which energy is used. The following graph, adapted from Davis et al. (2000)<sup>[3]</sup>, shows how the energy systems contribute to the manufacture of ATP over time when exercising at 100% effort. The thresholds (T) indicate the point at which the energy system is exhausted - training will improve the thresholds times.

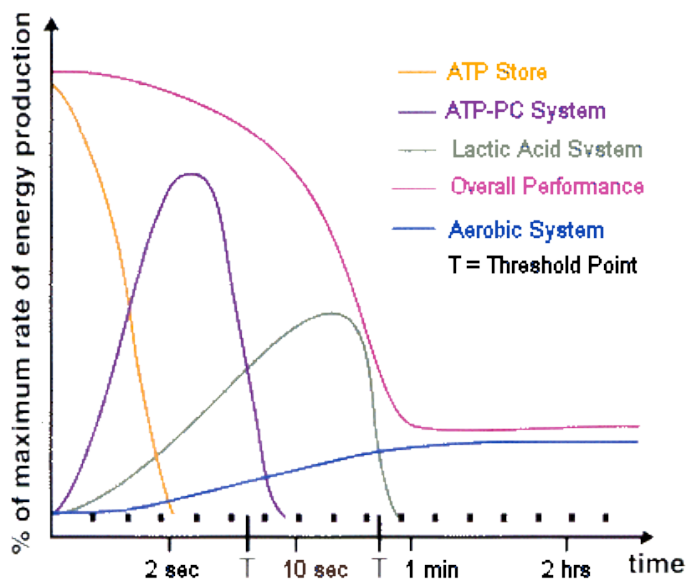


Figure 1 The various pathways for energy production

**Sprint-type work, creatine phosphate mobilization increases**

working time /sec/	set	repetition	exercise / rest time
0: 10	5	10	1:3
0: 15	5	9	1:3
0: 20	4	10	1:3
0: 25	4	8	1:3

**Speed endurance is developing an anaerobic type**

working time /sec/	set	repetition	exercise / rest time
0: - 30	5	10	1:3
0: 40 - 0:50	5	9	1:3
1: - 1:10	4	10	1:2
1:0 - 2:0	4	8	1:2

**Highly anaerobic nature**

working time /sec/	set	repetition	exercise / rest time
1:30: - 2:0	2	4	1:2
2:10 - 2:40	1	6	1:2
2:50 - 3:00	1	4	1:1

**Aerobic nature of the circulatory system's capacity to develop ATP O2**

working time /sec/	set	repetition	exercise / rest time
3:00 - 4:00	1	4	1:1
4:00 - 5:00	1	3	1:1/2

**STRENGTH-ENDURANCE**

Strength-Endurance is defined as the magnitude of the resistance posed by the body against the fatigue induced by long lasting strains with large strength components. Even quick attacks that last for approximately 20 seconds strain one's endurance. This can primarily be felt in standing combat and leg attacks, in almost all attacks in groundwrestling, and in bridge positions. However, Strength-Endurance can be shown by the fact that, during bouts, 10-12 attacks are initiated with the greatest strength possible for 6 minutes, and a wrestler has to deflect the same number of attacks during that same amount of time. International rules for both styles of wrestling show that the dynamics of the bout have increased, and the duration of decreased intensity between defensive and offensive actions that involve great strength are decreasing, allowing less time for rest.

**METHODS FOR DEVELOPING WRESTLING-SPECIFIC ENDURANCE**

The importance of endurance, as a performance-defining component, has also increased along with the fast-paced development of international wrestling performance. Endurance is a decisive factor in directing a wrestler's offensive attack in the bout. The significance of well-developed endurance, as a performance-defining component, is constantly increasing. The stringent requirements concerning endurance demonstrate the developments in the speed of bouts that started in 1970. This improvement in endurance has shown an especially large increase since 1992; in fact, the speed of combat might even surpass the limits of wrestling thought possible.

Muscle energy supply and training exercise:

*Aerobic method:* These training exercises aimed mainly at increasing the aerobic sources of energy development. The basis is provided by exercises performed at the level of anaerobic threshold (these can be cyclic exercises or the extended periods of wrestling in which the parts that lead to the sudden increase of anaerobic processes are omitted, e.g., static effort, holding breath, etc.).

*Anaerobic method:* These training exercises aid the performance of those systems that guarantee aerobic work capacity. The following are some parameters characterizing these exercises: Sixty to ninety second long exercises with periodic repetitions. Their intensity is about 80%, and resting time is around thirty seconds. During the exercises, the pulse is around 170- 180/minute and does not drop below 130/minute during the rest period. The number of maximum repetitions is ten.

*Mixed method:* Training exercises in which energy is provided through both aerobic and anaerobic methods. Hold exercises and training bouts in which the time of both the bouts and the rest periods are varied are most often used for these purposes.

*GE (glycolytic) method:* Training methods that mainly affect the capacity of the anaerobic glycolytic sources of energy. It has the following parameters:

- The exercises are completed in sequences, and each sequence is repeated three times. The duration of the repeated exercises is 90-120 seconds, and the rest time between the exercises is two minutes, with a rest time between the sequences of about 10-12 minutes.
- The intensity of the exercises performed with a dummy or partner and the intensity of properly organized matches is as great as possible.

*GN (glycolytic) method:* Training exercises which contribute to an increase in performance of those systems which affect anaerobic glycolytic performance.

These exercises have the following parameters:

- The exercises are performed in sequences (there are three sequences in all)
- The sequence contains three repetitions, each of which lasts about 40-50 seconds. The rest time between the repetitions is less than two minutes. The rest time between two sequences is 8-12 minutes.
- The exercises are carried out at maximum intensity. To prepare, taking part in properly organized bouts and performing sequences of throws with either a dummy or a partner are recommended.

*Anaerobic alactacid method:* This method includes exercises which aim at influencing the anaerobic alactate component of special endurance. These exercises can be generally characterized by the following:

- The exercises are performed in sequences, and there are a maximum of three. The sequences each contain 5-6 repetitions. The duration of each repetition is 10-15 seconds at most, and the rest time between the repetitions varies from thirty seconds to two minutes. Rest time between sequences is 6-10 minutes.
- Similar exercises can consist of special combat positions, exercises with dummies, and special bouts.

### **Emotional Intelligence**

- Identify and track feeling
- Can you handle anger
- Motivation (ability to mobilize the emotions of a target)
- Empathy
- How to respond to environmental signals, how fast will it etc.
- The confidence of the coach, self-confidence

### **MENTAL ENDURANCE**

The outstanding performance is not motivated by external factors, but also the inner flame of passion, the joy of accomplishment.

Decisions must be made!

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