

MULTISHUTTLE TRAINING IN BADMINTON

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Introduction:

Badminton is one of the most popular sports in the world. At top level, badminton is the most demanding of racket games. The ability to play high calibre badminton has many aspects to it. Some of these aspects include tactical, technical skills, physical and psychological demands. Badminton is a power sport played in repeated, short bursts. During rallies, heart rates climb quickly to levels within 10% of maximum. This indicates that international players put forward intense effort when the shuttle is in play. Despite this, they show rapid heart rate recovery between points and games with a build-up of lactic acid which is much less than would be expected from the high heart rates. Timing studies show a variation of average rally times from 6-10 seconds. This range covers the spread among men vs. women, singles vs. doubles, and different levels of international play. The high heart rates, low lactic acid, and short rally time all support the concept that the anaerobic alactic energy system is of primary importance in badminton. Studies of rally times also show that 20-25% of rallies may last longer than 10 seconds. These longer rallies push badminton into the anaerobic lactic energy system a significant part of the time. High calibre players have the ability to tolerate the longer rallies and quickly remove the lactic acid. This fact combined with their rapid heart rate recovery and the low per cent body fat (7-12%) all suggest a high level of aerobic energy system fitness. Before a coach can set up a training program they must have a clear picture of what the training program is supposed to accomplish.

"Multishuttle"

"Multishuttle" way of training is very popular and specific for the badminton training session. Work with a lot of shuttles – a multishuttle way is a common picture from training all around Asia. Thousands of shuttles are scattered on the courts and the coach, wearing the mask on his face (like a sorcerer) is throwing them towards the player. There are many different ways of this kind of exercise which depends on what has to be achieved.

The training phase can contain any or all of the following types of training:

- Energy system training
- Power training
- Flexibility training
- Skill training
- Strategy and tactics training

The goals of multishuttle training in different types of training :

- a) tactical - for a single play
for a doubles play
for a mix play
- b) technical practising different shoots, application of various shot techniques: clears, smash, defensive and drop shots, net play, backhands, drives
practising different movement on the court, application of running techniques: running to net, to side, running backwards and jumping
- c) physical for the endurance, aerobic endurance and anaerobic endurance
for the strength, power-explosive strength and strength endurance
for the speed, speed of reaction and speed of action

Tactical goal

There are four general basic tactics in badminton: the player must move towards the shuttle and not wait for the shuttle to come to him. The player must strike the shuttle the first moment he could possibly reach it, the earlier he can hit the shuttle, the more variations and the deeper his shot placement will be. The faster he could return the shot, the less time he gives his opponent to regain momentum for another return. With speed, power, stamina, accuracy, deception and anticipation he forces his opponent to make mistakes or go out of reach or in many instances, out of breath, in order to win the game. In a singles play the player must use the 5.18x13.40 m width and length of the court to the maximum by hitting the shuttle to the farthest ends/corners of the opposite court possible to stretch the opponent to the full. In that way the basic tactic in the single is based on getting the opponent out of the central position on the court and sending the shuttle to the corner, opposite from the one where the opponent is. The player must return to the central position himself as soon as possible. The tactic in doubles is somewhat different.

Teamwork is tremendously important and the best teams are normally made up of players with approximately equal ability and similar temperaments who have the utmost confidence in each other. The keynote in all doubles play is attack. The primary object of a good doubles team is to

gain the attack and to keep it. The learning of tactic on multishuttle training can be with one or two players. There are some speciality in training mix doubles, the role of women in mix and the role of man in mix.

The exercises are divided into 3 groups :

- attacking
- defensive
- net exercises

During the exercise the player must perform the best shuttle according to the tactic. "Feeding" simulates what would the oponent play like an answer.

Technical goal

Skills can be classified into two main categories: those involving mainly neuro-muscular coordination and those involving visual-neuro-muscular coordination where the visual sense plays an important part. To effectively teach these skills, the coach must be able to recognise the various problems involved in each particular skill and in the context of the game. For successful learning of the skills at the beginning level, or for practising one or more shoots in the serie for correcting techical error, or to player precise. Multishuttle drills are very good because it allows coach to adjust speed, accuracy, angle of the flight of the shuttle. Any different shots from all parts of court can train in multishuttle training:

- overhead strokes
- underarm strokes
- the side arm strokes
- net shots

Physical goal

The game posses all of the fundamental motor skills with which badminton players is endowed and demands fast reactions. Fundamentally, the game demands the execution of such skills as running, jumping, twisting, striking, throwing and various combinations of these skills, executed in rapid hand-eye coordination. The intensity and the duration of the single exercise will depend on the pyhsical characteristic we want to develop, of the period of the competitional season, age of sportsman etc.

Some examples:

- for speed, exercise last 10-15 seconds, 45-90 sec rest, 10 repetitions
- for anaerobe endurance, 20-45 sec or longer, 40-180 sec rest, 5-10 repetitions

- for muscular strength endurance, 20 smesh forhend, 20 smash bechand and short rest, 5-10 repetition.

For effective multishuttle training there is of great importance the skill of feeder or the way how coach is «feeding». There are certain details of difference that have to be carefully examined while "feeding":

- the different angles of throwing the shuttle
- throwing shuttle with hand or with the racket
- the very spot on the court from where you throw the shuttle(in front or behind the net, out of the court)
- throwing shuttle while standing on the floor or higher (bench, chair)
- what shoot does the coach simulate
- what is the speed of the shuttle

Methodical procedure in the multishuttle training:

The basic presumption is to progress from easier to the harder exercises when you learn the new shots.

This is the example for learning the net drop shoot, "feeding" :

- the shuttle is thrown only on one side of the court
- the shuttle is thrown on the both sides of the court
- the shuttle is thrown on the both sides but the player does not know in which turn
- the shuttle is thrown with tricks

When performing the exercise the player can:

- play the shoot from one spot on the court
- moving on the court, first slowly to the shuttle
- moving in the full speed

In this way the coach can achieve the optimal way of performing the exercise. The one that would suit the player, his technical and physical level.

Conclusion

Multishuttle training can be performed by the coach himself or by the machine. In Croatia such training is done only by coaches. Since it is an often way of training, the coach has to have high ability for performing the "feeding". The top class coaches can hold over 30 shuttles lying in a row on one hand and pass them with great speed and accuracy. The shuttles that are used on such trainings can be new but also already used. Teaching method in multishuttle training has lots of advantages, it can go deep in details and can analyze and every movement and motion. Practices can be carried out according to principles of practice i.e. active

participation, repetition, intensity, correctness, progression, variety, challenging. The coach can use drills, simulation for application or create situations for trainees to use the skill. The coach can carry out formative and summative evaluation. The coach can note down the general weaknesses and strengths, and the specific weaknesses and faults of individual trainee.

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