



INTERTWINING FITNESS EXERCISES WITH TECHNICAL AND TACTICAL CONTENTS IN ORDER TO BE HANDBALL PLAYERS MORE EFFICIENT IN TRAINING

Handball is a game through which players burst out using their moving apparatus vigorously. The game consists of movements whose direction is changed in a flash, great number of high jumps and leaps in each forward direction, explosive throws from a wide variety of positions (including the position of the body concerning the space, or the position of the forearm to the other segments of the skeleton). It is a game full of violent impact and blows, falls, pulls or pushes. Taking everything that has been said, into consideration, it is quite obvious that we should pay a lot of attention to workouts if we want handball players to become more successful. Coaches on all levels are aware of that and occupy themselves with it so that they try to develop and maintain these moving abilities in the performing forms as a whole set of exercises. In the preparatory period there are 3 to 4 sets while in the competitive one usually only 1 to 2.

When I was a handball player, I was disturbed, later as a coach even more by the long delays during the transformation of a particular dimension of strength (for example: maximum power, rapid power) and its improvement in the player's efficiency through out the game. They lasted even for several weeks. This fact caused me a terrible problem when I started working with national teams as they have already delivered relatively short period of time for top most competition preparations. Fitness preparation on the other hand, which doesn't include only keeping fit exercises hasn't been extended.

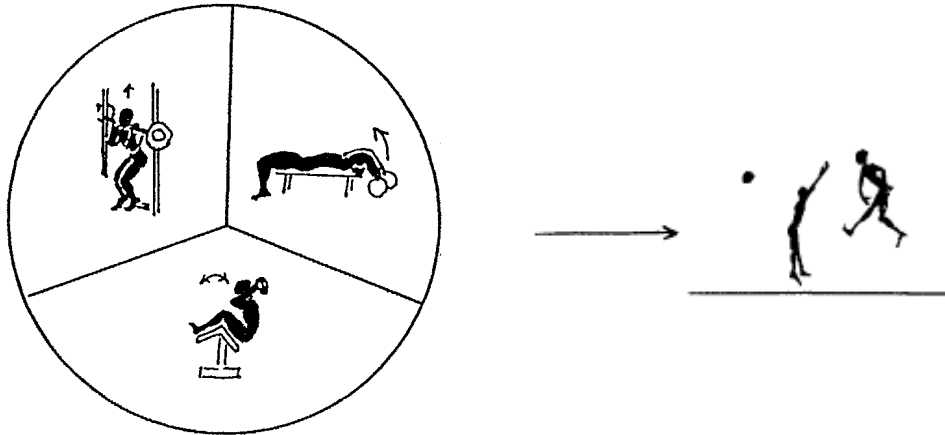
Intermuscular coordination

I have always been thinking that some concepts of coordination (such as work out) should be connected with technical and tactical contents. Knowing the essential activity of the nervous and muscular system, it is clear to me that this type of practise is almost sensible. A handball game actually combines a lot of complex units of structural movements. While fitness exercises, which are used to increase the efficiency, are relatively simple moving actions. During each single workout, the number of the active muscles is mostly very limited. Beside that, at the time of the most fitness performances the body is in a passive stable state, or with other words a quite big number of nervous and muscular ways are practically non active. As exercises of this kind sometimes last for some days or even more without being used some handball techniques, necessarily weaken the uppermost movement coordination at every single level of the central nervous system and the muscles. So it is reasonable to practise specific handball elements during the fitness exercises which can be either technical or tactical.

Example training exercises:

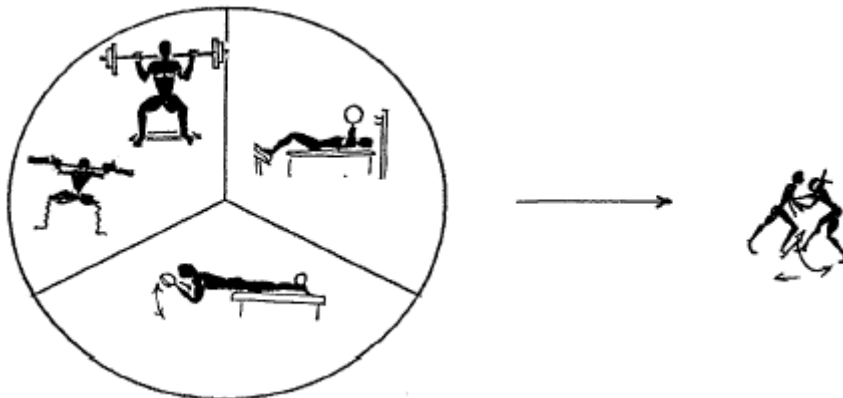
1. combination of training for power with shooting training

- A) first you make all the exercises for power, than you make training of shooting
- B) after each series of exercises for power, you make a certain number of shootings



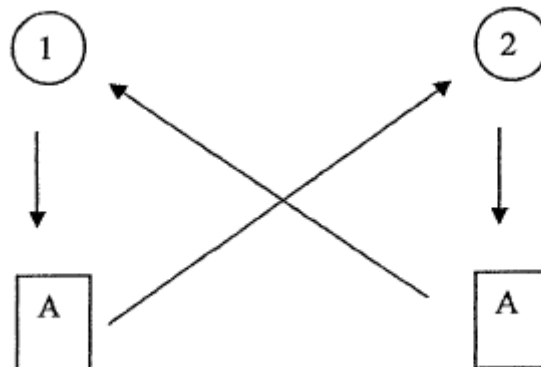
2. combination of training for power with defending training

- A) first you make all exercises for power, than you make training of defending
- B) after each circle of exercises for power, you make defending training



3. combination of all exercises for power with typical handball contents

Players are divided in two groups. Each group first makes their exercises for power and than exercises of typical handball contents. Than change position.



4. combination of the training for quick power with "heavy balls" with training for shooting in different positions of hand according to body.

For development of quick power throwing muscles of the hands in practise we use throwing with both hands of 3 – 5 kg "heavy balls". I use this technique myself, but much more with the aim of time perfection of the harmonizing individual flexor muscles and body rotators and their effectiveness what concens streching and elastic energy. The amplitude of both hand throwing is in comparison to one hand throwing is much smaller. It doesn't follow the position of later tension (just before it goes from exentric to concentric contraction) during the time of violent shooting on the door. For that reason is for the training of intermuscular coordination and better profit of nerve-muscular potential of throwing muscles better one hand throwings of "heavy balls".



Nerve – muscular potential

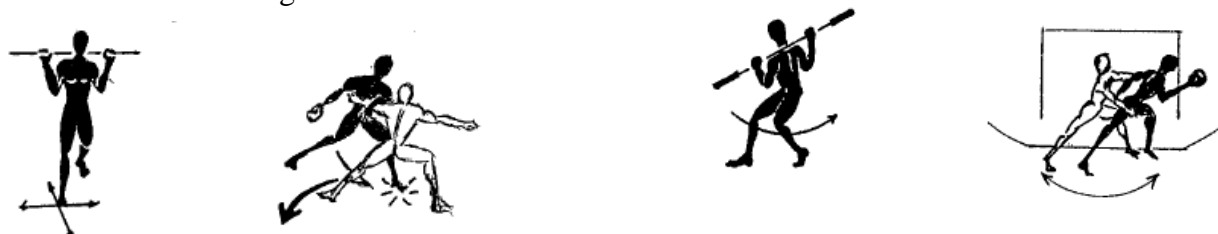
Nerve-muscular potential is from the physiological point of view rather a complex phenomenon for which are responsible either nerve as also muscle mechanisms. In sport practise we can use it in a rather simple way for short time improvement of nerve-muscular activities and thus of the sportsman's momentary abilities.

Most simply said, it is about a phenomenon when we are able to manifest bigger force with a certain activity if we performed the same or similar preliminary conduct with surmounting of maximal or submaximal burdens. The effects of potential last from 10 to 20 minutes, with two peaks: soon after muscle contraction and after 2 – 5 minutes. There is a lot of opportunities in handball players training, how to make a good use of more effective training. I will list some exemples:

1. before sprints



2. before dribbling



3. before shooting

