

## Current issue

## Archival Issues

Volume 27, 2010  
Volume 26, 2009  
Volume 25, 2008  
Volume 24, 2007  
Volume 23, 2006  
Volume 22, 2005  
Volume 21, 2004  
Volume 20, 2003

## Search

## Newsletter

## Authors Pathway

## Information for Authors



## » Journal Abstract

Time and spatial aspects of movement anticipation

Z Borysiuk, J Sadowski

Biol Sport 2007; 24 (3):

ICID: 890559

Article type: Original article

IC™ Value: 9.36

Abstract provided by Publisher 

**Background:** Anticipation is a mental process consisting in foreseeing future events and situations based on shortening the selection stage in the information phase of sensorimotor responses. Through anticipation it is possible to program proper technical actions in a sports fight and to correct them depending on the changing conditions of a contest. **Methods:** 14 physically fit students took part in the experiment. The EMG measurement system was used for detection of latency time marked RT (reaction time), movement time (MT), and EMG signal value. The research aim adopted was the evaluation of the influence of advance signals on the changeability of RT, MT and EMG signal parameters in consecutive tests. **Results:** The results of the time anticipation test: RT – 127 ms and MT – 88 ms showed that the latent reaction time was shortened by 99 ms and the movement time by 42 ms compared to the control test. Therefore it can be stated that an earlier knowledge of the time series of signals has a greater influence on information processes than on the movement speed expressed by the MT value. **Conclusion:** The research work proved that the factors anticipating motor activities significantly increase their effectiveness influencing the shortening of both the reaction time and the movement itself. This phenomenon refers especially to the sensor phase, mainly to the stage of motor program selection.

ICID 890559

**FULL TEXT** 409 KB

### Related articles

- in IndexCopernicus™
  - ⊞ Reaction Time [1286 related records]
  - ⊞ sensorimotor response [2 related records]
  - ⊞ EMG system [0 related records]
  - ⊞ Movement anticipation [0 related records]

Search

Back