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## **Problems of the use of pseudoephedrine by athletes**

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### **Abstract**

Pseudoephedrine (PSE) as a sympathomimetic is an ingredient of many proprietary medicines which are available on the medical market over the counter (OTC drugs). It can be converted to cathine (CATH, norpseudoephedrine) inside the body. Until the end of 2003, PSE had been a banned substance in sport in case its urinary concentration was greater than 25 µg/ml. Then the World Anti-Doping Agency (WADA) removed PSE from the prohibited list. Prior to 2004 CATH was a forbidden substance and it is still one. CATH is included on the WADA prohibited list in the group of stimulants.

The results of a doping control concerning PSE conducted in the Department of Anti-Doping Research of Institute of Sport in Warsaw in the years 2001-2003 and 2004-2007 have been compared. Moreover, several dozen of urine samples collected from the patients taking OTC drugs with PSE have been analysed. In these samples the concentration of PSE and CATH has been estimated.

The results of this study have shown that athletes were using PSE frequently and in high doses between 2004 and 2007 when this substance was permitted by WADA. It is possible that athletes can obtain a positive result of doping control with CATH after the use of PSE.

The results of the study are published in:

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