



4. HRVATSKI KONGRES MEDICINE RADA  
s međunarodnim sudjelovanjem

**"ZDRAVLJE I RAD - KLJUČ ŽIVOTA"**

14. MEĐUNARODNI KONGRES O SLUŽBAMA MEDICINE RADA

**"SLUŽBE MEDICINE RADA U TRANZICIJI  
U ISTOČNOJ I ZAPADNOJ EUROPI"**



4<sup>th</sup> CROATIAN CONGRESS ON OCCUPATIONAL HEALTH  
with international participation

**"HEALTH AND WORK - KEY OF LIFE"**

14<sup>th</sup> INTERNATIONAL CONGRESS ON OCCUPATIONAL HEALTH SERVICES

**„OCCUPATIONAL HEALTH SERVICES IN TRANSITION  
IN EASTERN AND WESTERN EUROPE“**

**Dubrovnik, 8.-11.11.2007.**



**KNJIGA SAŽETAKA • BOOK OF ABSTRACTS**

**4. HRVATSKI KONGRES MEDICINE RADA**  
**14. MEĐUNARODNI KONGRES O SLUŽBAMA MEDICINE RADA**

4<sup>th</sup> CROATIAN CONGRESS ON OCCUPATIONAL HEALTH  
14<sup>th</sup> INTERNATIONAL CONGRESS ON OCCUPATIONAL HEALTH  
SERVICES

**Dubrovnik, Hrvatska 8. – 11. 11. 2007.**  
**Dubrovnik, Croatia , November 8-11, 2007**

## 5.9

### **SOME DIABETICS ARE FIT TO DIVE, BUT WHICH? - CURRENT REVIEW**

**Milošević M, Golubić R, Mustajbegović J, Knežević B, Bubaš M, Vlaić D.**

Department for Environmental and Occupational Health, Andrija Štampar School of Public Health, School of Medicine, University of Zagreb, Zagreb, Croatia

**BACKGROUND** Divers with diabetes are at risk of sudden loss of consciousness. This carries the ultimate risk of drowning and implies additional risks. We wanted to summarize new findings in the literature about diabetes mellitus effects on divers and prevention possibilities.

**METHODS** Literature search using data sources (Medline, Current Contents, Cochrane database) from the earliest available date to December 2006 was performed. We identified all studies evaluating effects of diabetes on diving (key words were “diabetes” and “diving”). No restrictions were placed on study methods and language. Twenty-six items were found during the search. According to data relevance and availability 10 articles, 2 randomised clinical trials, 3 reviews, 5 letters and one case report were used in analysis.

**RESULTS** Hypoglycemic attack while in water can be wrongly perceived as nitrogen narcosis so divers with diabetes should be well-acquainted with the effects of exercise on their blood sugar and their tendency towards hypoglycemia before considering diving. After standard medical examination, diabetics have to satisfy some specific criteria. Diving is not recommended in patients who are on any medications which can cause hypoglycemia. Diabetics are allowed to dive if hypoglycemic attack and hospitalization for any reason connected with diabetes have not occurred within the last year, long-term control of the diabetic condition is good ( $HbA1c \leq 9\%$ ) and they are mentally and physically fit to undertake the sport of diving. In addition, microalbuminuria, sensory, motor or automatic neuropathy, vascular or microvascular disease beyond the background eye retinopathy should not be present in recent medical records. Rescue medications including oral glucose and parenteral glucagon should be accessible at the surface concerning all precautions.

**CONCLUSIONS** The physician performing medical examination should be satisfied that diabetic diver has a good knowledge of the risks being present during diving. Diabetic controlled on diet alone may be permitted to dive if he demonstrates adequate cardiorespiratory fitness and if all other criteria tested at the diving medical examination are found to be within normal limits. Adequate information of the patients, health providers and monitors should be delivered and registry should be set.