

*1<sup>st</sup> International Symposium of Advanced Topics in Exercise Physiology,  
Baja California, México*

*Abstract*

---

**Estimation of pre-exercise hydration status of Mexican college athletes**

CHÁVEZ-LÓPEZ, R<sup>1</sup>. ABURTO-CORONA, J<sup>1</sup>.

<sup>1</sup> FACULTAD DE DEPORTES, UNIVERSIDAD AUTÓNOMA DE BAJA CALIFORNIA, TIJUANA, MEXICO.

Category: Master

Mentor: [jorge.aburto@uabc.edu.mx](mailto:jorge.aburto@uabc.edu.mx)

---

ABSTRACT

**INTRODUCTION:** The state of hydration is a very important aspect for athletes and coaches. According to NATA and ACSM athletes must be educated to maintain a good state of hydration and thus obtain better results. **PURPOSE:** To determine the state of hydration, before the sport practice of athletes (males) that belong to representative sports. **METHODS:** Seventy-five males college athletes, physically active and apparently healthy, were voluntarily recruited. They had an average height of  $174.8 \pm 7.4$ cm, weight  $87.2 \pm 24.0$ kg and age  $21.3 \pm 2.4$  years. The athletes attended the study on a single spontaneous occasion, prior to the training session. Were given a questionnaire of hydration habits and a urine container (to collect a urine sample of their own). The urine gravity (UG) was determined by a urinary refractometer (ATAGO, Master-Sur/Na). **RESULTS:** Athletes had a urine gravity of  $1.024 \pm 0.006$ UG, finding maximum values up to 1.033 UG. Only 2.6% of the study population was well hydrated ( $<1.010$ UG), 23% had minimal hypohydration (1.010-1.020UG), 65.3% were moderately hypohydrated (1.021-1.030UG) and 9.1% presented severe hypohydration ( $>1.030$ UG), which means a loss of fluid of 2%, 4% and more than 5% of total body weight for hypohydration conditions. Athletes mentioned that during and one hour after exercise they drink  $762.3 \pm 560.2$ mL and  $644.4 \pm 362.2$ mL respectively, either water or isotonic drink. However, these liquid volume did not compensated the water deficiency with which they begin the practice of the exercise. **CONCLUSION:** Before the training, 97.4% of the subjects presented different level of hypohydration, including very severe hypohydration state. The fluid ingested after the training session did not disappear the hydration deficiency with which they begin the exercise.