

ABSTRACT

Objective. This study reports measurements for 14 para-

rescue firefighters who were measured for 14 parameters of hydration status before and after a 24-hr shift. The firefighters were measured for body mass, urine specific gravity (USG), urine sodium concentration, urine osmolality, urine creatinine concentration, serum sodium concentration, serum osmolality, serum creatinine concentration, serum urea nitrogen concentration, serum glucose concentration, serum lactate concentration, serum cortisol concentration, and serum prolactin concentration. The firefighters were measured for these parameters at 0800 hr, 1600 hr, and 2400 hr. The firefighters were measured for body mass, urine specific gravity, urine sodium concentration, urine osmolality, urine creatinine concentration, serum sodium concentration, serum osmolality, serum creatinine concentration, serum urea nitrogen concentration, serum glucose concentration, serum lactate concentration, serum cortisol concentration, and serum prolactin concentration. The firefighters were measured for these parameters at 0800 hr, 1600 hr, and 2400 hr.

Results. The firefighters arrived at training in a hydrated state; that is, their urine specific gravity was less than 1.020. The firefighters lost a significant amount of body mass during the shift, and a high percentage of firefighters arrived at training in a significantly or seriously dehydrated state. The firefighters lost a significant amount of body mass during the shift, and a high percentage of firefighters arrived at training in a significantly or seriously dehydrated state.

Conclusions. The firefighters lost a significant amount of body mass during the shift, and a high percentage of firefighters arrived at training in a significantly or seriously dehydrated state. The firefighters lost a significant amount of body mass during the shift, and a high percentage of firefighters arrived at training in a significantly or seriously dehydrated state.