Intervention times for fire fighters in tall buildings

The means of intervention for the rescue service is a topic of high interest, when it comes to tall buildings. The usage of stairs and a consequent fatigue of the rescue service, affects the process of fire fighting and rescuing in such buildings. In the present study tests were conducted in a high-rise building in Sharjah, United Arab Emirates (UAE). The goal was to gain more information regarding the travel time for fire fighters ascending stairs. Furthermore, signs of fatigue such as pulse during the intervention and fluid loss during the whole process were recorded. The test was conducted twice with the same crew from Sharjah Civil Defence. The experienced fire fighters walked a total distance of 298 meters while ascending 28 floors, a height of 98.5 meters and taking 638 steps. The results present a timeframe for fire fighters ascending stairs. It took 18:20 ± 2 min to ascend the average heart rate was about 90 % of the maximum pulse. Furthermore they lost up to 2 % of their total body weigh in fluid.

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