

**Changes in markers of muscle damage after half-ironman triathlon
#35**

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Triathlon is a unique endurance sport that comprises a sequential swim, swim-to cycle transition, cycle, cycle-to-run transition, and run. The aim of present was to analyze the effect of half-ironman triathlon over biochemistry parameters related of muscle damage. Six well-trained male amateurs' triathletes who completed the 2004 half-ironman triathlon participated in the study. Blood samples from six athletes were collected before and immediately after the triathlon competition. Creatinine kinase (CK) and lactate dehydrogenase (LDH) were measured. Pre and post race values were compared by paired t-tests. Significant changes after triathlon completion were found for CK (P= 0.001) and LDH (P= 0.018). This study indicates pronounced muscle enzyme release after half-ironman triathlon possibility due a sarcomere disruption and membrane rupture.

Key-words: Muscle damage; half-ironman; ultra-endurance; exercise.