

The effect of supplementation with sodium bicarbonate, caffeine, sodium bicarbonate plus caffeine on record lifeguard and lactic acid levels in women carrying savior

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Sodium bicarbonate is one of the energy supplement that is used to reduce fatigue and increase the power output in severe and short-term exercises such as explosive movements. The purpose of this study was to investigate The effect of supplementation with sodium bicarbonate, caffeine, sodium bicarbonate plus caffeine on record lifeguard and lactic acid levels in women carrying savior. The present study was using semi-experimental method. The statistical sample of the study was 12 daughters of the Lahijan pool. Sampling method was available sampling method. The exercise program was performed in four ways: with supplementation of sodium bicarbonate, caffeine, sodium bicarbonate with caffeine, so that caffeine 3 mg / kg in gelatin capsules in sodium bicarbonate is 0.3 Grams per kilogram were dissolved inside a liter of water and consumed 60 minutes before the test with a one-day rest interval between them. The participants performed a rescue. The record of doing this activity was measured by stopwatch. Before and after activity, the level of lactic acid was measured by a lactate meter and the fatigue was measured by the VAS questionnaire, this process was performed for the sodium bicarbonate group along with caffeine. There was a significant difference between the fasting rate after taking sodium bicarbonate with caffeine compared to placebo (P = 0.05). Also, there was a significant difference between the changes in the level of acidic lactate after sodium bicarbonate consumption compared to caffeine and sodium bicarbonate with caffeine and after sodium bicarbonate consumption compared to placebo (P = 0.05). The results showed that post-test fatigue was affected by placebo, sodium bicarbonate, caffeine and sodium bicarbonate plus caffeine. Regarding to the results, sodium

bicarbonate and caffeine consumption significantly improved fatigue compared to other cases. Conclusion: The results showed that a period of sodium bicarbonate plus caffeine consumption can have a better effect on the rate of performance and decreased fatigue and lactic acid levels in the sedgeer women.

Keywords : Sodium Bicarbonate, Caffeine, Placebo, Fatigue, Lactic Acid, Speed

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