



Kinematic parameters of the crawl stroke in swimming athletes

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The analysis of a swimmer's underwater movements is of fundamental importance in the competitive environment of the sport. It is in the submerged phase of the movements that the propulsion of the swimmers is characterized. The main objective is to verify the kinematic parameters of the crawl style in swimming athletes. A cart will be made; the instruments for capturing the images will be fixed (two Go-Pro cameras, a Hero 4 and a Hero 7, for the acquisition of submerged images, and a Canon EOS Rebel T3i camera). Kinovea 8.24 software will be used for image analysis, which had its validity and reliability in obtaining the angular dimensions and determined distances. Ten swimming athletes from the city of Campos dos Goytacazes-RJ will be selected. A 25-meter tracking test will be carried out, so that each volunteer will carry out two test sessions per day, once a month, for four months. It is hoped that this analysis may positively influence the performance of professional and amateur athletes to improve sports performance and prevent injuries. Also, it is expected that this "tool" made of kinematic analysis presents reliability in the study of biomechanical parameters (average speed, average acceleration, and time).

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