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The purpose of this study was to determine the relationships between stroke rate, stroke length and velocity in each 10 m distance in 100-m freestyle competitive in order to compare male and female swimmers' results and assess their relationships with anthropometric characteristics. Sixteen male and six female of Chandigarh's elite swimmers were tested during competition. Each of the 22 subjects swam and biomechanical factors were recorded with video camera and stopwatch at 10 m distances. Correlations showed that there was significant relation between SR (stroke rate), SL (stroke length) and V (velocity) in each 10 m distance. Correlations existed between SR, SL, V and any anthropometric characteristics between males and females in each 10 m distance. There were no significant correlations in SR and SL between males and females but velocity showed significant correlation in each 10 m distance.

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**BIOMECHANICAL FACTORS IN 100 M FREESTYLE  
SWIMMING AND THEIR RELATIONSHIPS WITH  
ANTHROPOMETRIC CHARACTERISTICS**

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