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Correlation between Age, height and weight with Hand Grip Strength.

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Abstract: Back ground: The Hand Grip Strength measurement is clinically used to determine the functional integrity of the hand and the effectiveness of hand rehabilitation programs.
Purpose: This study was conducted to find out the relationship between Age, Anthropometric measurements as height and weight and Hand Grip Strength in both right and left hands.
Methods: Hand grip strength was measured using Jamar hand –held dynamometer, in 1029 individual, of which 505 were female and 524 were male, with age range from 20 to 85 years old, mean age (42.44 ± 15.727). They were randomly selected from urban, suburban and rural areas.
Results: There was inverse significant correlation between age, height and weight with right and left hand grip strength in female, male and all participants as a whole, as ($p < 0.05$). Furthermore, there was significant direct correlation between height and weight with right and left hand grip strength in female, male and all participants as a whole as ($p < 0.05$) except for the correlation between female right hand grip strength and weight which was not significant with ($P>0.05$).
Conclusion: Age was inversely correlated with Grip strength for both right and left hands. The height and weight showed significant direct correlation with Grip strength for both right and left hands, except that the weight didn't correlate with female right hand grip strength.
Key words: Hand grip strength, Age, Height, Weight, Dynamometer.

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