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A Study for Muscular Strength Profiles of Korean Population

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Abstract: A series of three different laboratory studies were conducted to measure the isokinetic muscular strength profiles of Korean population and to investigate ethnical difference between Korean and Western populations. Each study measured upper body torque strength using different hand tools, push and pulling strength, and lifting strength, respectively. The results of three different strength studies showed that muscular strength ratio between female and male population was between 45% and 54% depending on strength type which is much less than general findings in the field of ergonomics that the maximum muscular strength of females is, on the average, 65% to 75% of males. Reasons of this difference could be explained in many aspects including ethnical, social and cultural differences. It suggests that application of same profile of muscular strength of western females and MMH guidelines such as NIOSH Lifting Guidelines should be carefully considered in Korean population and possibly oriental countries as well since females in this region may possess less physical capability compare to that of western populations. Profiles of different muscular strength data of Koreans are provided.

Keywords: Muscular Strength, Korean, MMH, Ethic and Gender Differences.