

Somatotype joint mobility and ranges of hip and knee of college students [Somatotipo y rangos de movilidad articular de cadera y rodilla en estudiantes universitarios]

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Introduction: several studies indicate a consistency between the physical inactivity and low levels of mobility in hip and knee joint. Objective: to determine the differences in the motion range of the hip and knee joint between the different classifications of somatotype in students of Pedagogy in Physical Education of the Universidad Autónoma de Chile, campus Temuco. Methods: the sample included 102 physical education students (31.3% female), somatotype was obtained through the protocol of the International Society for the Advancement of Kinanthropometry (ISAK) and the motion range of the hip and knee joint (ROM) using a universal goniometer. Results: the mean somatotype was endo-mesomorphic (4.8 - 3.4 - 2) for the women and meso-endomorphic (3.5 - 5.7 - 2) for the males, while the ROM evaluation indicated that the 50% of the students presented mobility values of joint lower than the normal ones. Furthermore, the endo-mesomorphic women showed lower ROM values of medial rotation of the right hip ($45.5^{\circ} \pm 10.2^{\circ}$; $P = 0.0125$, $t = 2.732$) and left hip side rotation ($41.7^{\circ} \pm 10.3^{\circ}$; $P = 0.0256$; $p = 2.402$) than the women meso-endomorphic. Conclusion: the results shows a relationship between the somatotype and hip ROM in the women, showing that in the women the most favorable results of joint mobility are related with a greater

muscle mass. In contrasts, no significant differences were observed in men. It is important to encourage the development of joint mobility exercises according to the specific needs of each sex.

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Goniome-try and students

Joint mobility range

Somatotype

adolescent

adult

female

hip

human

joint

joint characteristics and functions

knee

male

physical education

physiology

somatotype

student

university

young adult

Adolescent

Adult

Female

Hip

Humans

Joints

Knee

Male

Physical Education and Training

Range of Motion, Articular

Somatotypes

Students

Universities

Young Adult