Sarcopenia: The need to establish different cutting points of fat-free mass for the Chilean population

Wigodski, Sabrina

Carrasco, Fernando

Bunout, Daniel

Barrera, Gladys

Hirsch, Sandra

de la Maza, Maria Pia

Objectives: International cutoff points for the diagnosis of sarcopenia are not applicable to the Chilean population due to previous evidence of a lower lean mass and strength in this population. Dual-energy x-ray absorptiometry is used to establish fat-free mass cutoff points to define sarcopenia in the Chilean population and analyze its association with handgrip strength in older adults. Methods: Appendicular fat-free mass (AFFM) was calculated from 4062 dual-energy x-ray absorptiometries of healthy Chileans, ages 18 to 99 y. Possible cutoff points for sarcopenia were obtained using four methods: A) Normative, ?2 standard deviation (SD) below mean AFFM/height2 (AFFMI) of adults age <40 y; B) normative ?1 SD, ?1 SD under the average AFFMI of adults age <40 y; C) stratification, 25th percentile of the residual distribution obtained with the regression equation to predict AFFM in the entire sample; and D) percentage, ?2 SD under the average skeletal muscle mass/total