

Effects of resistance training on blood glucose control and muscle function in sedentary adult women in Los Angeles, Chile Efectos del entrenamiento fuerza-resistencia en el control de glucosa y función muscular en mujeres adultas sedentarias de Los Ángeles

Zapata-Lamana, R.

Cigarroa, I.

Díaz, E.

Saavedra, C.

Monsalves, M.

© 2014 Elsevier España, S.L.U. and SERMEF. Introduction A sedentary lifestyle is associated with numerous metabolic diseases, such as insulin resistance and type 2 diabetes mellitus. Recent studies have reported that resistance exercise is an effective method to counteract these metabolic diseases. Objective To analyze the metabolic and physical effects of a 12-week resistance exercise program in 40 sedentary women aged between 30 and 60 years who worked at the University of Concepcion, Los Angeles, Chile. The study was conducted between September and December, 2013. Materials and methods Participants were randomly assigned to either an experimental group or to a control group. The experimental group trained four large muscle groups (arm flexors, trunk flexors, arm extensors and leg extensors) twice a week for 12 weeks. Glucose tolerance was measured with a fasting glucose test at baseline and 120 minutes after ingestion of anhydrous glucose dissolved in water. Besides, muscular resista