

## **Abstract**

### **Title:**

Reference values of hand grip strength in older people in the Czech Republic

### **Objectives:**

The main aim was to establish reference values for handgrip strength and grip strength adjusted by BMI in the elderly over 50 years old in the Czech Republic.

### **Methods:**

Data obtained from the Survey of Health, Aging and Retirement in Europe (SHARE) was used to calculate reference values for handgrip strength and grip strength adjusted to BMI. The reference values were based on percentile distributions depending on age and gender; additionally percentile nomograms were created.

### **Results:**

The research sample consisted of 1,787 men (average age  $64.5 \pm 8.8$ ) and 2,207 women (average age  $64.3 \pm 8.9$  years) from the Czech Republic. Men achieved higher values than women for both variables, which continuously decreased with age in both genders.

### **Conclusion:**

Those reference values could serve as key indicators for evaluating the physical fitness of seniors in the Czech Republic.

**Key words:** physical performance, frailty, sarcopenia