

## **INFLUENCE OF DIFFERENT BENCH THROW TEMPOS ON THE STRENGTH OF THE UPPER EXTREMITIES**

**Ratko Stanković, Saša Bubanj, Katarina Herodek, Radoslav Bubanj, Saša Marković, Dragan Nejić**

Faculty of Sports and Physical Education, University of Niš, Serbia

E-mail: [racaslavujac@gmail.com](mailto:racaslavujac@gmail.com)

**Abstract.** Upward pressure from the bench, i.e. the bench press, is the test of pure strength of the upper extremities. It includes lifting and lowering, as large a weight as it is possible and it evolved at the beginning of the 1960's, in the USA. There are certain discordances, in the previous research, concerning the strength training method, which refer to the methods of exercise performance, i.e. to single vs. multiple sets, optimal repetition range for increasing muscular strength and endurance, speed of movement during exercise and optimal training frequency. The focus of this research was on the speed of movement during practice. The first sub-sample exercised by using cadence with a 2/4 tempo, and the second sub-sample exercised by using cadence with a 4/4 tempo. As the differences of relative and absolute gains in the lifted amounts, at the initial and final measurements, between two sub-samples existed, but were not significant, it seems more reasonable to suggest a slower bench throw tempo. A slower bench throw tempo, i.e. slower movement speed, implies a smaller consumption of energy.

**Key words:** Bench press, cadence, speed of movement, strength

## **UTICAJ RAZLIČITE BRZINE POTISKA SA KLUPE NA JAČINU GORNJIH EKSTREMITETA**

Potisak sa klupe, odnosno bench press je test čiste snage gornjih ekstremiteta. Sastoji se iz podizanja i spuštanja, što je moguće veće težine i nastao je početkom 60-tih godina prošlog veka u SAD. Postoje određena neslaganja, u prethodnim istraživanjima, u vezi metoda treninga snage, koja se odnose na načine vežbanja tj., jednu u odnosu na više serija ponavljanja, optimalan opseg ponavljanja u cilju povećanja mišićne snage i izdržljivosti, brzinu pokreta tokom vežbanja i optimalnu učestalost treninga. Fokus ovog istraživanja bio je usmeren na brzinu pokreta tokom treninga. Prvi subuzorak ispitanika vežbao je pomoću taktnog signala u 2/4 ritmu, a drugi subuzorak vežbao je pomoću taktnog signala u 4/4 ritmu. Obzirom da su postojale razlike u apsolutnim i relativnim dobitcima podignutih masa, na inicijalnom i na finalnom merenju, između dva subuzorka, ali koje nisu bile statistički značajne, čini se razumnijim, da se predloži sporiji ritam izbačaja i spuštanja tereta. Sporiji ritam prilikom bench press-a, tj. manja brzina pokreta, podrazumeva, manju potrošnju energije.

**Ključne reči:** potisak sa klupe, takt, brzina pokreta, snaga

