



## **KEY WORDS**

- ✓ Strength exercises
- ✓ Tennis
- ✓ Speed
- ✓ Vertical Jump
- ✓ Standing long jump

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EXAMINATION OF THE EFFECTS OF AN 8-WEEK MACHINE-BASED STRENGTH TRAINING PROGRAM ON VERTICAL JUMP, STANDING LONG JUMP, AND 20-METER SPRINT PERFORMANCE IN 12-14-YEAR-OLD TENNIS PLAYERS

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# THESIS ABSTRACT

The purpose of this study is to examine the effects of 8-week machine-based strength training, applied in addition to tennis branch-specific training, on vertical jump, standing long jump and 20 meter speed of tennis athletes between the ages of 12-14. A total of 24 licensed tennis athletes (11 girls, 13 boys) were included in the study. The athletes were randomly divided into two groups: control group (12 athletes) and experimental group (12 athletes). In addition to daily tennis training, the experimental group did machine-based strength training two days a week. The control group continued the tennis technical and tactical training program. The research lasted eight weeks, and at the end of the eight weeks, the tests applied in the pre-test (vertical jump, standing long jump and 20 meter sprint) were re-applied and recorded as the post-test. The data obtained were compared using independent groups t-test in SPSS 26.0 program. According to the statistical results obtained, no significant difference was seen in the control and experimental groups. Conclusion: In this study, it was found that 8-week machine-based strength training applied in addition to tennis-specific training of 12-14 year old tennis athletes had no effect on vertical jump, standing long jump and 20 meter speed.

## **APPLICATION AREAS OF THE THESIS RESULTS**

It will guide coaches and trainers in tennis and different branches in choosing the appropriate exercise in their strength training planning.

## ACADEMIC ACTIVITIES

Altindag K., Vatansever Ş., Bölükbaşı M.G., (2023). Effects of Resistance Exercise on Muscle Mass, Muscle Strength and Body Composition in Elderly Individuals with Sarcopenia: Systematic Review. Isarc International Science and Art Research. 3-4 June 2023 (Full Text Paper)