

## Session rate of perceived exertion in different rest interval for resistance training

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### Abstract

The objective of this study was to evaluate the influence of distinct rest intervals between sets (45s, 90s and 180s) on the values of Session Rate of Perceived Exertion. Eight participants was submitted to 10 series with 10 maximum repetitions provided in three different sessions, separated by a week (*cross-over design*), in Bench Press exercise. Were collected data on total session volume variables in total weight (sets x repetitions x load) and in repetitions (series x repetitions), load (kg) used in sets, the blood lactate concentration and external and internal training load. It was not observed statistical difference for the Session RPE values in different intervals of recovery between series, however, the external load variables of the training program showed significant variations when using different intervals of recovery between sets (total volume in kilos, total volume in repetitions, used load per set).

*Key words: Strength Training, Perception, Lactates.*

### Introduction

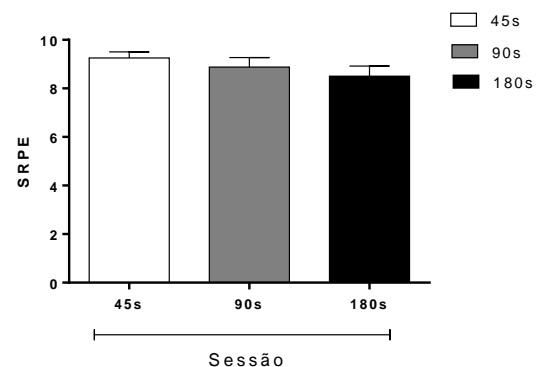
Strength training is widely used as a tool for sporting, aesthetic purposes and the maintenance of health. For your prescription and monitoring is necessary to consider its variables, among them the recovery time interval between sets.

The objective of this study was to evaluate the effects of three different rest intervals (45, 90, 180 sec) between sets in the values of Session Rate of Perceived Exertion (SRPE), internal training load, Blood Lactate and external training variables.

### Results and Discussion

The sample consisted of 8 men, strength training practitioners (21.8 years  $\pm$  2.3, 22.1  $\pm$  86,5kg, 180 cm  $\pm$  8.6, 24.2  $\pm$  38 months exp. Preview). The volunteers participated in three strength training sessions (bench press, 10 sets of 10 presumed maximum reps.) separated by seven days in crossover design. After the end of each set was collected RPE, 10 minutes after the end of the session was collected SRPE, using the question "How was your workout?", used later to calculate the internal training load, using the total of repetitions. The total volumes were calculated in repetitions and kilos. For statistical analysis was used *Two-Way Anova* test.

There were no statistical differences between the intervals for the RPE variables, SRPE and variation of blood lactate concentration. However, differences were observed for total repetitions and kilograms.



**Image 1.** SRPE results. No statistic differences were observed.

### Conclusions

The results of this study suggest that different rest intervals between sets in strength training did not influence the Session Rate of Perceived Exertion and Internal Training Load, in result of training with maximum repetitions to fatigue in all sets. However, a reduction of total volume in kilograms and in repetition, in the lower range protocol (45s), highlighting a worse recovery compared with other protocols.

### Acknowledgement

Thanks to teacher Marco C. Uchida and Renato Barroso, GEPEFAN friends, classmates and my family. Special thanks to CNPq that trough PIBIC financed and support this research.

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