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## EFFECTS OF VERY SHORT REST PERIODS ON IMMUNOGLOBULIN A AND CORTISOL RESPONSES TO RESISTANCE EXERCISE IN MEN

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### Abstract

There are few data relating to stress levels and immune function, prior to, and following acute bout of resistance exercise with varying rest intervals between sets in young resistance trained men.

Therefore, the aim of this study was to determine the effect of varying rest intervals on serum IgA and cortisol concentrations during heavy resistance exercise (RE). Ten resistance-trained men

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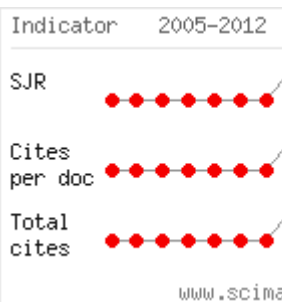
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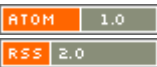
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completed 3 exercise bouts of 4 sets of bench press and squat to exhaustion at 85% of one repetition maximum (1RM) with 60-, 90- or 120-second rest intervals. Blood samples collected at rest (PRE), immediately post-exercise (POST), and 30-min post-exercise (30Post) were analyzed for IgA, cortisol and lactate levels. Data were analyzed using  $3 \times 3$  repeated measures analysis of variance. The results showed there was not any significant differences between serum IgA levels of three protocols in pre-test and post-test ( $P > 0.05$ ). However, serum cortisol concentrations were significantly different between and within protocols ( $P < 0.05$ ). We conclude that short rest intervals between sets in resistance training programs do not suppress IgA secretion. However, short rest intervals induce increase in serum cortisol concentration.

Key words: serum Immunoglobulin A; rest intervals between sets; cortisol

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