



EFFECT OF THREE DIFFERENT BETWEEN-INNING RECOVERY METHODS ON BASEBALL PITCHING PERFORMANCE

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In baseball (and also other sports), in order to consistently perform at the highest level during competition, recovery of the muscles in the rest periods in between high performance innings is important.

In this Californian study, the authors compared the effectiveness of three forms of recovery in order to determine which one was most effective after an inning of pitching in baseball:

1. passive recovery: no activity for 6 minutes
2. active jogging recovery: 6 minutes jogging
3. active EMS (electrical muscle stimulation) recovery: 6 minutes 'active recovery' program with [Compex Sport](#) of the arm and shoulder muscles.

- The active EMS recovery with the Compex Sport produced the highest reduction in blood lactate levels as compared to the other recovery methods which had no significant effect on blood lactate. Reduction of blood lactate allows for the recovery of the muscle, which should allow for better performance in the subsequent pitching activity.

- It was indeed measured that pitching speed following NMES recovery was higher compared to pitching speed after jogging recovery.

- Psychological measurement showed that subjective, perceived recovery was also better after the Compex versus jogging recovery session, which may also potentially contribute to an increase in pitching performance during the next inning.

The authors recommend electrical muscle stimulation as the recovery method of choice for baseball pitchers because of superior blood lactate clearance and better self-reported recovery.