INTRODUCTION: The usefulness of massage as a recovery method after high-intensity exercise has yet to be established. There have been recent methodological improvements in this type of study.

OBJECTIVES: To investigate the effects of whole-body massage on heart rate variability and blood pressure (BP) after repeated high-intensity cycling exercise under controlled and standardized pre-test conditions.

MATERIAL AND METHODS: The study included 62 healthy active individuals. After baseline measurements, subjects performed standardized warm-up exercises followed by three 30 sec Wingate tests. After completing the exercise protocol, subjects were randomly assigned to a massage (myofascial release) or placebo (sham treatment with ultrasound and magnetotherapy equipment disconnected) group for a 40-min recovery period. Holter recording and BP measurements were taken after exercise protocol and after the intervention.

RESULTS: After the recovery period, RMSSD (P=0.42), HF (P=0.94) and LF/HF (P=0.25) values returned to baseline levels in the massage group, whereas RMSSD tended (P=0.05) to be lower, HF was significantly (P<0.01) lower and LF/HF tended (P=0.05) to be higher than at baseline in the placebo group. Likewise, diastolic blood pressure returned to baseline levels in the massage group (P=0.45) but remained lower in the placebo group (P=0.02). Systolic blood pressure remained significantly lower than at baseline in both the massage (P=0.01) and placebo (P=0.001) group.

CONCLUSIONS: Myofascial release massage favors the recovery of heart rate variability and diastolic BP after high-intensity exercise (3 Wingate-tests) to pre-exercise levels but has no effect on systolic BP.

Keywords: Blood Pressure, Heart Rate Variability