Purpose. The purpose of this study was to examine the fibrinolytic response to whole body vibration (WBV) and exercise in men. Methods. Twenty healthy males (23.8 ± 4.2 years, 80.8 ± 3.3 kg·m⁻²) participated in the study. Each subject performed 3 trials in randomized order separated by 1 week. The trials consisted of exercise (X), vibration (V) and vibration + exercise (VX). Exercise sessions consisted of 15 minutes of unloaded squatting at a rate of 20 per minute. Vibration sessions were conducted on a WBV platform vibrating at a frequency of 30 Hz and amplitude of 1.5mm for 15 minutes.

Plasma concentrations of active tPA and PAI-1 samples were assessed at baseline and immediately after each session. Results. tPA activity change from pre to post trial was found to be significantly greater in the VX condition (0.87 ± 0.35 IU·ml⁻¹ to 3.21 ± 1.06 IU·ml⁻¹) compared to the X (0.71 ± 0.36 IU·ml⁻¹ to 2.37 ± 1.13 IU·ml⁻¹) or V (0.83 ± 0.25 IU·ml⁻¹ to 1.00 ± 0.37 IU·ml⁻¹) condition. tPA activity change from pre to post trial was found to be significantly greater in the X condition compared to the V condition. PAI-1 activity change from pre to post trial was found to be significantly decreased in the VX
(6.54 ± 5.53 IU·ml⁻¹ to 4.89 ± 4.13 IU·ml⁻¹) and X (9.76 ± 8.19 IU·ml⁻¹ to 7.48 ± 7.11 IU·ml⁻¹) conditions compared to the V (5.68 ± 3.53 IU·ml⁻¹ to 5.84 ± 3.52 IU·ml⁻¹) condition. Heart rate change from pre to post exercise for the V condition (pre, 75 ± 8 bpm; post, 90 ± 7 bpm) was less than the change in the VX condition (pre, 77 ± 13 bpm; post, 148 ± 19 bpm) and X condition (pre, 71 ± 11 bpm; post, 139 ± 22 bpm). The change in heart rate was found to be similar in the X and VX conditions. Peak RPE was not significantly different between X and VX sessions. **Conclusions.** WBV does not stimulate increased fibrinolytic activity in young men. However, the significant increase in fibrinolytic potential observed during squatting exercise is enhanced by concurrent WBV.