Classification Accuracy of the Wrist-Worn GENEActiv Accelerometer

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Doi: 10.1249/MSS.0b013e3182965249

This study investigated whether the published left-wrist cut-points for the GENEActiv accelerometer are accurate for predicting intensity categories during specific structured exercises. One hundred and thirty adults wore a GENEActiv on their left wrist and performed 14 different lifestyle activities, left-handed subject data were excluded. Seven activities were completed by the subjects, from filing papers, vacuuming, self-paced, walking, treadmill walk (6.4 km/h), cycling at 49 watts, basketball practice, treadmill run (9.6 km/h), computer work, treadmill walk (4.8 km/h), cycling 98 watts, moving a 4.5 kg box, treadmill walk on a 5% incline (4.8 or 6.4 km/h).

This study reports that using published cut-points that there was some misclassification of the activities performed.

The complete abstract can be viewed or publication purchased by following the link:

http://journals.lww.com/acsm-msse/Abstract/publishahead/Classification_Accuracy_of_the_Wrist_Worn_GENEActiv.98366.aspx