103 DOES COMPUTER USE AFFECT THE INCIDENCE OF DISTAL ARM PAIN? A ONE-YEAR PROSPECTIVE STUDY USING OBJECTIVE MEASURES OF COMPUTER USE

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Objectives To study how objectively recorded mouse and keyboard activity affects distal arm pain among computer workers.

Methods Computer activities were recorded among 2146 computer workers. For 52 weeks mouse and keyboard time, sustained activity, speed and micropauses were recorded with a software program installed on the participants' computers. Participants reported weekly pain scores via the software program for elbow, forearm, and wrist/hand as well as in a questionnaire at baseline and 1-year follow up. Associations between pain development and computer work were examined for three pain outcomes: acute, prolonged and chronic pain.

Results Mouse time, even at low levels, was associated with acute pain in a similar way for all the examined regions. There were no exposure-response threshold patterns. Keyboard time had no effect. Mouse and keyboard sustained activity, speed and micropauses were not risk factors for acute pain, nor did they modify the effects of mouse or keyboard time. Computer usage parameters were not associated with prolonged or chronic pain. A major limitation of the study was low keyboard times.

Conclusions Computer work was not related to the development of prolonged or chronic pain. Mouse time was associated with acute distal arm pain, but the impact was quite small and the mechanism is uncertain.

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