



## Carpal tunnel syndrome and the use of computer mouse and keyboard: a systematic review.

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Abstract: This review examines evidence for an association between computer work and carpal tunnel syndrome (CTS). A systematic review of studies of computer work and CTS was performed. Supplementary, longitudinal studies of low force, repetitive work and CTS, and studies of possible pathophysiological mechanisms were evaluated. Eight epidemiological studies of the association between computer work and CTS were identified. All eight studies had one or more limitation including imprecise exposure and outcome assessment, low statistical power or potentially serious biases. In three of the studies an exposure-response association was observed but because of possible misclassification no firm conclusions could be drawn. Three of the studies found risks below 1. Also longitudinal studies of repetitive low-force non-computer work (n = 3) were reviewed but these studies did not add evidence to an association. Measurements of carpal tunnel pressure (CTP) under conditions typically observed among computer users showed pressure values below levels considered harmful. However, during actual mouse use one study showed an increase of CTP to potentially harmful levels. The long term effects of prolonged or repeatedly increased pressures at these levels are not known, however. There is insufficient epidemiological evidence that computer work causes CTS.

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