

Industrial Injuries Advisory Council - Information Note

Carpal tunnel syndrome and wrist/forearm rotation

1. Carpal tunnel syndrome (CTS) is a disease caused by entrapment (pinching) of a nerve supplying sensation to the hand (the median nerve) as it passes through a bony canal at the wrist. The disease may be occupationally caused, but it is not unique to occupation, having a range of other causes.
2. CTS is reasonably common in the general population. There are no clinical features in the individual patient that allow an occupationally-caused case to be distinguished reliably from a case that would otherwise occur. As a result, it has proved difficult to establish a link between a particular job and the condition, sufficient to meet the requirements for prescription for Industrial Injuries Disablement Benefit (IIDB) within the Industrial Injuries Scheme.
3. The Scheme's legal framework makes it clear that prescription should only be recommended for a disease if a link to employment can be established or presumed with reasonable certainty. Usually, as explained in previous reports, for diseases that cannot be reliably attributed to work on clinical grounds, the Industrial Injuries Advisory Council (IIAC) requires high quality research evidence indicating that risks of the disease in question are more than doubled by occupational circumstances that can be defined practically for use within the Scheme.
4. Using this approach, epidemiological (population-based) evidence has enabled CTS to be prescribed (as Prescribed Disease (PD) A12) in relation to i) workers whose jobs entail a good deal of repeated regular bending and straightening of the wrist (repeated occupational palmar flexion and dorsiflexion movements) and ii) in workers using hand-held powered vibratory tools. The prescription for CTS was last reviewed in 2007 as part of a commissioned review on work-related upper limb disorders.
5. Recently, the Council received a request from an MP on behalf of a constituent to review the list of occupational exposures eligible for prescription PD A12. The constituent believed that his job as a tanker driver, involving repetitive screwing on and off of tanker caps, had resulted in his CTS.
6. In response, IIAC sought evidence of CTS in relation to twisting/turning exposures and in relation to work as a tanker driver or other professional driver, undertaking a detailed search of the published peer-reviewed research literature and other relevant published information.
7. No evidence was found to suggest that tanker drivers or professional drivers were at increased risk of CTS associated with repetitive screwing of tanker caps.

8. Where studies had explored the risk associated with occupational activities defined more generally, no study had specifically evaluated the risk associated with repetitive screwing movements. A few studies explored the association of 'twisting' movements occurring in combination with other repetitive movements of the hands/wrist (e.g. hyper-flexing and twisting the wrists in fish net makers and bending/twisting the wrists in industrial workers), but such studies did not employ a consistent definition of the occupational exposures or provide clear evidence that it was repetitive screwing motion that was associated with the increased risk.
9. These limitations prevent the Council from recommending prescription for repetitive screwing and CTS at the present time. However, the Council will continue to monitor emerging evidence relating to these exposures and activities.

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