Abnormal nerve conduction studies as an isolated finding should not be treated or used to screen out workers but rather should be followed up to establish, if it exists, the natural history of median nerve function and hand symptoms. The sound practice of medicine dictates treatment of the patient, not the abnormal laboratory value. Nerve conduction studies must use norms based on a healthy population without known exposures. If a shift in median nerve function is found more often in workers involved in repetitive activities, this cannot be accepted as a worker norm in the absence of prospective studies to determine the long term consequences. An oft quoted saying by Carl Sagan fits the study’s conclusion: “The absence of sensory nerve conduction not predicting hand symptoms, “Absence of evidence is not evidence of absence.”

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Authors’ reply—We appreciate the comments from Bleecker regarding our recent article on the predictive value of nerve conduction studies in predicting future symptoms consistent with carpal tunnel syndrome (CTS). The issues raised are appropriate and will hopefully encourage more research in this area. The concerns about a possible selection bias are real as our study was based upon active workers and did not represent an inception cohort of workers. We agree that this type of study needs to be duplicated with an inception cohort to show the natural history of median nerve conduction across the wrist over time, with a close correlation of hand and finger symptoms. Our sample was randomly chosen and had a high participation rate. The duration of employment at their present job did not influence the reporting of symptoms in our study; this argues against a selection bias of survivors but does not rule out the possibility.

The issue of whether or not the latency of the median nerve evoked response changes over time in active workers was not considered in our study and may provide some additional information. Our historical median mononeuropathy at the wrist but it does not assess the risk for CTS. Our study supports the conclusion that an active asymptomatic worker, with a documented median mononeuropathy, is not at increased risk for developing CTS (even though this contradicts our original hypothesis). Knowing the change in latency at follow up would not change this conclusion.

We are in agreement with Bleecker that you treat the patient and not the test. Unfortunately, many clinicians think that a prolonged median latency is the equivalent of carpal tunnel syndrome. This is due in part of the high sensitivity reported for nerve conduction studies in relation to CTS.1 We raise the issue that the high sensitivity noted in a clinical setting with symptomatic patients is not found in the cross sectional screening of the workplace.1,2 Also, the specificity is lower than previously thought.1,2

This study questions the value of a screening nerve conduction study but also raises issues with their value as a diagnostic test. We think that the current criteria for determining a threshold for a prolongation of the median nerve evoked response across the wrist in the active worker needs to be re-evaluated. Our normative data, from asymptomatic workers, suggest that a relative difference of 0.8 ms be used instead of 0.5 ms that is used in many laboratories.1,2 The data from Stetson et al1 supports the assumption that active industrial workers represent a shift in the population with more prolongation of the median nerve present among active workers. A longitudinal study will be necessary to find whether the active worker with a prolonged median nerve evoked response across the wrist develops any significant problems in the future. Our study showed that within a mean of 17 months of follow up that asymptomatic workers with a median mononeuropathy were not at greater risk of developing symptoms consistent with CTS. This argues against using nerve conduction testing as a screening procedure but a definitive study remains to be done.

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The sex ratios of offspring of people exposed to non-ionizing radiation

Editor—In recent years there has been increasing concern that exposures to non-ionizing electromagnetic fields have adverse reproductive effects.1 It is well established that in men, many forms of non-steroidal disease are associated with low testosterone, or high gonadotrophin concentrations, or both.1 There is very substantial evidence that...
Use of screening nerve conduction studies for predicting future carpal tunnel syndrome.

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