

Comparison of Functional Capabilities of Individuals with and Without Fingers

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Injuries to fingers remain the most pervasive nonfatal occupational injuries to the upper extremities in US industries. It is to be expected that the work performance of individuals with finger disabilities, such as amputated fingers, will be inferior to those with all fingers intact and fully functional. However, published literature does not provide any indication how much the functional capacities of individuals with finger injuries differ from normal individuals. Knowledge of the nature and extent of decline in functional capacities of individuals with finger disabilities is essential for accommodating them in the work place, and ADA compliance. This paper reports the results of a laboratory investigation performed to study the differences in functional capacities of individuals with and without simulated finger disabilities when performing routine industrial tasks and standardized strength tests. The finger disability simulated was of an extreme nature, and was defined as the loss of the use of four fingers in the preferred hand and the thumb in the non-preferred hand. Results indicated a significant reduction in performance for all dexterity tasks.