

# Quick Review of Model System Research

### Impact of Burn-Related Amputations on Return to Work: Findings From the Burn Injury Model System National Database

### What is the study about?

Though amputations following a burn injury are uncommon, they affect one’s ability to find employment after injury. This study looks at and compares patient injury characteristics, quality of life, and employment status for those with and without amputation following a burn injury.

### What did the study find?

The study found that amputations are mainly linked to electrical injuries and contact with hot objects. At 1 year after injury, burn survivors requiring any level of amputation are nearly 5 times less likely to be employed than those who did not require amputation. Although amputation following a burn injury may inhibit return to work, those who did find work by 1 year, scored no differently on the SF-12 Health Survey when compared to those without amputation.

### Who participated in the study?

The BMS longitudinal database was used to identify adult participants who met the following criteria: 1) 18-64 years old with a burn injury covering more than 20% Total Body Surface Area (TBSA); 65 years and older with a burn injury of 10% TBSA or greater; 3) any size burn to the face, neck, hands, or feet; and 4) any high voltage electrical injury. Surgical intervention for wound closure was also part of the inclusion criteria for each of these four groups.

### How was the study conducted?

The SF-12 Health survey, a generic quality of life instrument that measures health from the individual’s perspective, was collected upon hospital discharge and 6 and 12 months after injury. Pre-burn employment status was also collected at discharge and postburn employment status was requested during each follow-up. Statistical analyses were used to evaluate differences between those with an amputation and those who did not require an amputation.

### [How can people use the results?](file:///C%3A%5C%5CUsers%5C%5Cccai%5C%5CAppData%5C%5CLocal%5C%5CMicrosoft%5C%5CWindows%5C%5CTemporary%20Internet%20Files%5C%5CContent.Outlook%5C%5C4WHR71C4%5C%5CBogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx%22%20%5Cl%20%22Note%22%20%5Co%20%22Describe%20who%20could%20use%20the%20results%20and%20how.%20Could%20be%20patient%2C%20doctor%2C%20administration%2C%20centers.%20Should%20make%20sense%20given%20findings%20and%20study%20design.%20Do%20not%20overreach.)

For burn survivors with amputation following injury, the results of this study can help them prepare for potential challenges of returning to work. Clinicians and vocational counselors can use this information to assist with vocational rehabilitation measures as their patients seek to find work or return to work after injury.

### [Reference](file:///C%3A%5C%5CUsers%5C%5Cccai%5C%5CAppData%5C%5CLocal%5C%5CMicrosoft%5C%5CWindows%5C%5CTemporary%20Internet%20Files%5C%5CContent.Outlook%5C%5C4WHR71C4%5C%5CBogner_CER-1403-13476_DFRR_Professional%20and%20Public%20Abstract_SME%20Review_102918%20ccai.docx%22%20%5Cl%20%22Note%22%20%5Co%20%22Describe%20who%20could%20use%20the%20results%20and%20how.%20Could%20be%20patient%2C%20doctor%2C%20administration%2C%20centers.%20Should%20make%20sense%20given%20findings%20and%20study%20design.%20Do%20not%20overreach.)

Carrougher, G. J., McMullen, K., Mandell, S. P., Amtmann, D., Kowalske, K. J., Schneider, J. C., . . . Gibran, N. S. (2018). Impact of Burn-Related Amputations on Return to Work: Findings From the Burn Injury Model System National Database. Journal of Burn Care & Research, 40(1), 21-28. doi:10.1093/jbcr/iry057. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/30376104>

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