

# Factors associated with worker slipping in limited-service restaurants

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## Abstract

Objective Slips, trips and falls (STF) are responsible for a substantial injury burden in the global workplace. Restaurant environments are challenged by STF. This study assessed individual and work environment factors related to slipping in US limited-service restaurant workers.

Methods Workers in 10 limited-service restaurants in Massachusetts were recruited to participate. Workers' occupational slip and/or fall history within the past 4 weeks was collected by multilingual written questionnaires. Age, gender, job tenure, work hours per week and work shift were also collected. Shoe type, condition and gross shoe contamination were visually assessed. Floor friction was measured and each restaurant's overall mean coefficient of friction (COF) was calculated. The logistic generalised estimating equations model was used to compute adjusted odds ratios (OR).

Results Of 125 workers, 42 reported one or more slips in the past 4 weeks with two reporting a resultant fall. Results from multivariable regression showed that higher restaurant mean COF was significantly associated with a decreased risk of self-reported slipping (OR 0.59, 95% CI 0.42 to 0.82). From the highest to the lowest COF restaurant, the odds of a positive slip history increased by a factor of more than seven. Younger age, male gender, lower weekly work hours and the presence of gross contamination on worker's shoe sole were also associated with increased odds of slip history.

Conclusion Published findings of an association between friction and slipping and falling in actual work environments are rare. The findings suggest that effective intervention strategies to reduce the risk of slips

and falls in restaurant workers could include increasing COF and improving housekeeping practices.

Keyword : slip & fall, friction coefficient, restaurant worker