



# FRICTION IN THE KITCHEN

The importance of **proper footwear**  
and **slip-resistant mats** in restaurants



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## **Friction in the kitchen: The importance of proper footwear and slip-resistant mats in restaurants**

Restaurant kitchens are hazardous work environments for employees due to the number of disparate dangers in such a small space. Whether it's stovetop flames, razor-sharp knives or 400-degree frying oil, restaurant employees contend with many dangers while working in a commercial kitchen. Safety programs and protocols are critical for avoiding injury with these hazards.

Employees can avoid some of the most common kitchen dangers by wearing slip-resistant shoes and using slip-resistant mats. Slips and falls are significant problems in nearly every kind of restaurant kitchen across the U.S. A Liberty Mutual study found that employees wearing slip-resistant shoes were half as likely to fall compared to colleagues with other footwear<sup>1</sup>. These safety products help protect restaurant workers by improving the amount of friction they have with the floor, regardless of grease, water or other substances.

If you're looking to reduce the number of slip and fall-related injuries in your restaurant's kitchen, it's important to understand the common causes of this problem, what employers and employees can do, and how slip-resistant work shoes can play a major role in keeping employees safe.



### **Slip hazards in restaurant kitchens**

There isn't just one simple and avoidable action that causes slips and falls in commercial kitchens. If this were the case, the injury epidemic would be much easier to control.

Kitchen floors often become slippery and hazardous through normal use. This underscores the importance of slip-resistant work shoes because the additional traction from footwear can help reduce the number of slips and falls significantly. Although it may be difficult to eliminate slippery floors altogether, there are a number of factors that can make slips more likely.

### **Spilled water, oils and grease are some of biggest causes of slips and falls in the kitchen.**

These commonly used substances can come from a number of unexpected sources. Employees might spill oil when transporting containers of the cooking liquid or just from using it regularly. Grease can come from places such as stovetops, griddles or faulty grease catch systems. Water can come from nearly anywhere, particularly around the sink or ice machine.

Silverthorne, Colorado, Wendy's manager Jules explained that in her kitchen, grease and water seem to get on the floor all the time no matter what the employees do. This makes slip-resistant footwear crucial to their safety.



**"It's a working environment," she explained. "There's grease, there's water. These tiles just aren't conducive to working. So you have to be wearing a slip-resistant shoe. People think that regular tennis shoes will work, but they won't."**

**—Jules, Wendy's Manager**

Similarly, Bloomington, Illinois, Olive Garden manager Sarah Lococo pointed to ice as one of their biggest slip hazards. Lococo explained that the restaurant has put a renewed emphasis on combating the issue of soiled kitchen floors.

In addition to spills, clogged drainage areas can cause flooding and pooling that may make the floor more slippery. A lack of rugs or mats that fail to provide enough traction can also be serious work hazards in a kitchen as well. People tracking mud or water indoors, broken dish washing machines or cracked buckets also contribute to fall-related injuries in the kitchen. Additionally, employees who carry or stack items in ways that limit visibility throughout the kitchen are more susceptible to collisions, falls and slippery hazards.



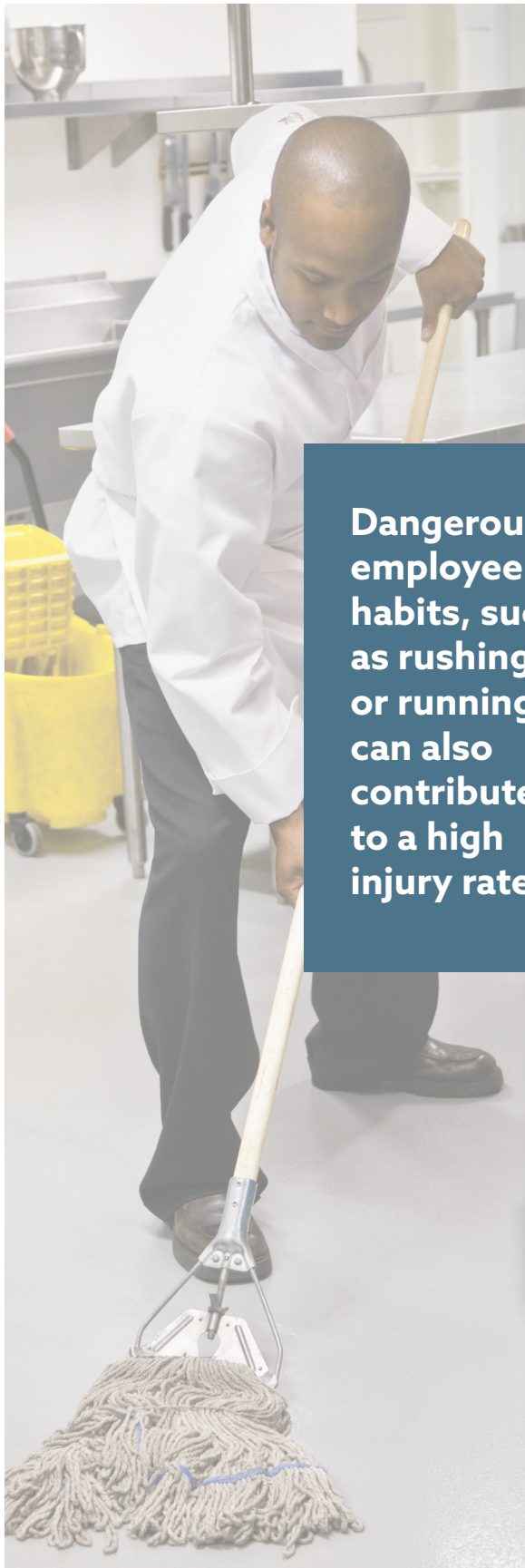
Although many of these dangers are seen throughout the restaurant industry, others are more specific to the food prepared and the equipment used in particular restaurants.

Lococo explained that one of the biggest slip hazards at Olive Garden in the past has been salad ingredients. Garnishes such as tomatoes, olives and pepperoncinis can slip, fall and roll onto the floor, creating a risk for a server or busser walking through the kitchen with limited vision.

Other than spilled food, certain restaurants have specialty equipment that contributes to hazardous working conditions. Many places, especially fast food establishments, use deep fryers which can spray oil onto employees and the floor. This can cause burns and dangerous floor conditions. Corey Zeman, a manager at P.F. Chang's in Middleton, Wisconsin, explained that many of their safety hazards have to do with their use of woks.

**Although the biggest danger with woks is the 12,000-BTU flames used to heat the cookware, oil in woks can present slipping problems similar to a deep fryer.**





**Dangerous employee habits, such as rushing or running, can also contribute to a high injury rate.**

## What employers and employees can do

In addition to using slip-resistant shoes and mats, employees can take extra precautions to reduce the overall risk of falling.

The California Occupational Safety and Health Administration pointed to a variety of precautions to improve worker safety and reduce hazards like wet floors. The COSHA advised employees to keep kitchens well lit to optimize visibility, clean spills quickly with clean mops to avoid spreading more grease or oil around, and use caution signs to let other employees know what areas of the kitchen they should avoid.

Restaurants may also want to rearrange kitchens to maximize visibility, ensure bus tubs aren't overfilled, limit walkway clutter, minimize the need to carry heavy pots and deal with maintenance issues, such as a leaking pipe, swiftly. Splash guards can help reduce the amount of oil, grease or water spilled when used near a fry station or sink.

Dangerous employee habits, such as rushing or running, can also contribute to a high injury rate. Managers and owners can work with employees to reduce these tendencies so even at peak hours when everyone is scrambling, the kitchen is as safe as it should be. Baggy clothing and leather sole shoes can also put employees at a higher risk of slipping.

P.F.Chang's manager Zeman and Olive Garden manager Lococo both emphasized the importance of employee training programs and official safety protocols. However, it's not always easy to create a safer work environment.

"Making people aware that things can happen and how they can happen," Zeman called the most important aspects of a training program. "In all of our training materials, it's about which precautions to take and when to take them."

He explained that training can be as simple as showing a YouTube video of a man slipping with a pot of boiling water. It lets the employees know that this is a real danger and it can—and has—happened in restaurant kitchens.

People may want to look into situation- and hazard-specific cleaning materials to increase employee safety. For example, a grease cleaner may work better at a fast food restaurant, whereas other cleaners are superior for removing liquids like salad dressing spills.

In addition to establishing cleaning protocols, implementing safety training, working to limit hazardous habits and avoiding common slip dangers, OSHA and a number of other prominent workplace safety organizations recommend the use of rubber slip-resistant footwear and mats for restaurant employees.



**Slip-resistant footwear works to improve the wearer's friction coefficient by improving the interaction between the shoe and the floor.**

## Why slip-resistant mats and shoes help

It may seem logical that specialty work shoes and mats can help with slippery kitchen floors, but why?

When people walk, they need to have friction with the floor or surface they're walking on. A coefficient of friction, written as the symbol  $\mu$ , describes how much force is needed to move an object on a certain surface. A lower coefficient of friction, means less friction, while a high number means more traction and often better safety. As a surface's coefficient of friction approaches zero, employees are more likely to fall. At one, though, employees are well-protected from slips and falls.

Most dry floors have a coefficient of friction within a safe range. However, when an employee spills a liquid or grease gets on the floor, the coefficient can plummet and create a dangerous situation.

Slip-resistant footwear works to improve the wearer's friction coefficient by improving the interaction between the shoe and the floor. With specialty rubber compounds and unique tread designs that wick away contaminants, slip-resistant shoes make wet or dry floors much safer. With these shoes, employees aren't just relying on the floor's friction, they're adding their own reliable surface at the bottom of their feet.

Slip-resistant mats also provide a space that will deliver traction and friction for workers regardless of the flooring they're on.

Additionally, this eliminates one of the most common restaurant falling dangers—rugs. Slip-resistant mats will provide employees support as well as not slide around on the floor. British slip testing company Slip Alert puts the safe friction threshold at 0.40. Shoes For Crews' slip-resistant footwear is far above this threshold at 0.58<sup>ii</sup>.



## Eliminate slips in your kitchen

No matter what role you have in a restaurant—owner, manager, server or busser—or what kind of establishment you work for, whether it's traditional, fast food or breakfast, it's always a good idea to reduce the likelihood of slips and falls. You can approach this common kitchen conundrum with a multi-faceted approach that uses slip-resistant footwear and mats, identifies and solves slip hazards, trains employees for safer practices, establishes quick and effective cleaning protocols, and encourages managers and employees alike to stay vigilant in the kitchen.



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<sup>i</sup> <https://libertymutualresearch.files.wordpress.com/2017/10/slipstripsandfallsinrestaurants.pdf>

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