



A Union of Professionals

WORK SHOULDN'T HURT

Food Service: The Hazards of Work

It's clear that commercial kitchens and food service operations can be dangerous for workers. Here's just a sample of the hazards and the injuries and illnesses that can result from working in these areas, along with some suggested best practices to minimize injury:

Knife Cuts

Injuries to hands and fingers are most common in the commercial kitchens and occur during the food preparation process while cutting, slicing and dicing vegetables and boning meat. Most injuries are often the result of using the wrong knife for the job or a dull blade; we recommend watching this timely video on [how to prevent knife cuts](#).



Best Practice Knife Tips:

- Keep knives well-maintained and sharp; dull blades will more easily slip off food and into your finger.

- Always use the correct knife for the job.
- Cut away from your body when trimming or deboning.
- Use knives that are comfortable in your hand and easy to grip.
- Do not leave knives in washing water; return immediately to storage holders such as a bag or magnetic strip directly after use.
- When carrying knives, point the blade downward.
- Use last-slice devices to prevent injury.
- Avoid holding conversations while cutting; focus on your task.

Burns

Commercial kitchens are packed with hot surfaces, hot liquids and oils, and hot foods that spatter their surrounding area. Workers are often at risk of burns from badly designed ovens, splatters from hot stoves and grills and when removing heavy pans from the oven. Burn hazards are an undeniable threat in the kitchen. Hot surfaces, direct flame and working with hot oils, handling hot pots, pans and trays all provide an opportunity to inflict serious injury.

Burns occur with direct contact with flames, electricity, and chemicals. Scalding results from direct contact with hot liquids like boiling water, steam and oils used for cooking. Protective clothing is essential to guard against the ever-present threat of injury, eyewear and heat-resistant gloves and aprons are the best protection against injury from oil splatter.

The **American Federation of Teachers** is a union of 1.7 million professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

Randi Weingarten
PRESIDENT

Fedrick C. Ingram
SECRETARY-TREASURER

Evelyn DeJesus
EXECUTIVE VICE PRESIDENT



Degrees of burns: A qualified medical practitioner should access all burns. There are three degrees of burns.

- First-degree—mild damage present on the outer layer of skin, redness of the skin, painful but no blistering.
- Second-degree—caused by direct contact with flame or hot liquids; symptoms are redness, blistering, swelling and pain. Burns can appear white (due to blistering); risk of infection is possible.
- Third-degree—both the outer and inner layers of skin are destroyed; damage to bone, muscles and tendons can occur. Burned skin can be white, black or yellow, and have a stiff, dry, leathery feel. Often the burn victim will not feel pain in the burn area due to nerve damage and may require skin grafts and intensive care to ward off risk of infection.

Note: Steam can reach temperatures above 400 degrees Fahrenheit. Steam burns tend to be far more intense than scalding from boiling water.

Best Practices to Avoid Burns:

- Avoid overcrowding in the kitchen area; often, spills are the result of direct contact with another individual.
- Ensure staff have proper training in how to handle hot items and appliances.
- Turn pot handles inward to avoid accidental spillage by passersby, and avoid placing handles over heat sources.
- Ensure that spills are immediately cleaned up, and wear footwear with slip-resistant properties.
- Add a gravity feed chute from the deep fryer to avoid direct handling of hot oils.
- Use a trolley to carry or serve hot liquids or crockery.
- Wear heat-resistant clothing.
- Install serving windows to keep serving staff out of the kitchen.
- Keep all equipment well-maintained.
- Develop safe systems.
- Ensure staff have training in first-aid techniques.
- Wear long-sleeved chef jackets or bib aprons.
- Be sure you have access to plenty of hot pads, side towels or heatproof gloves for handling hot pans.

Slips, Trips and Falls

Floors are often slick with oil or water; and in older kitchens, the floors may be uneven. Leaking plumbing and cooking grease make a floor a treacherous surface. All of these things can lead to employees slipping or falling, which is extremely dangerous when you're working with sharp blades and hot implements. Slips, trips and falls in kitchens account for many serious head and back injuries as well as a host of other muscle strains and sprains.



Common causes of trips, slips and falls are:

- Wet or slippery surfaces;
- Uneven or deteriorated floor surfaces;
- Stepped floors or raised doorways; and
- Obstructions in walkways.

Best Practices to Minimize the Potential for Slips, Trips and Falls:

- Report any potential hazards to management immediately.
- Take steps to clean spills immediately.
- Block access to wet areas, and use cautionary signage.
- Install transition ramps to overcome variations in floor heights, raised doorways or sliding door frames.
- Keep walkways clear of deliveries, empty boxes, crates, bins, cleaning or catering equipment at all times.
- Consider installing nonslip floor covering in any potential spill or wet areas.
- Wear nonslip footwear.

Head and Eye Injuries

Most head injuries occur by bumping into overhanging shelves or accessing tight, confined places such as reaching for items on shelves or walk-in fridges. Eyes can be injured by splatter from hot oil, steam or water.

Best Practices to Avoid Head and Eye Injuries Include:

- Mount shelves high enough so they do not present an injury hazard as staff go about their daily routine.
- When accessing confined spaces, take note of objects and potential dangers around you.
- Ensure protective clothing and eyewear is worn, such as goggles or full-face guards when handling hot oils or chemicals.
- When moving objects, exercise caution to limit the potential of injury to others around you.

Fire Hazards

Commercial kitchens are host to a variety of hazardous fuels, flammable liquids and gases that can cause catastrophic damage, severe injury and death. It is essential to identify risks to eliminate the potential of accidentally igniting fuel sources.



Primary fire hazards in commercial kitchens:

- Gas ranges
- Grills
- Hot plates
- Ovens (electric and wood-fired)
- Deep fat fryers
- Charcoal heaters
- Combustible residues in exhaust ducts

- Cleaning fluids

Accidents often result from inadequate supervision, training or mismanagement. Examples include:

- Equipment left on without supervision;
- Gas blow torches used for browning some dishes;
- Faulty thermostats or defective equipment; and
- Failure to clean or follow regular equipment maintenance schedules.

The best way to avoid injury is to carry out periodic inspections of all equipment for signs of premature wear and tear, and to follow the manufacturer's recommendations for cleaning and maintenance of all equipment.

Electric Shock

Electric shocks are a genuine hazard in commercial kitchens due to the number of appliances in use. Faulty equipment or wiring, improper use or exposure of the machine or its connectors to liquids, moisture or heat can create a shock hazard.

Best Practices to Avoid Electrical Shock:

- Keep power leads off the floor area to avoid damage.
- Do not use faulty equipment or equipment with a frayed or damaged power cord.
- Do not plug in equipment with wet hands.
- If electrocution occurs, do not touch the victim until the power source has been turned off.
- Report faulty equipment.
- Report any potential workplace safety issues immediately.

Crowded Workspaces

A cramped and crowded work area increases the risk of injury or accidents from all sources. Many workplace injuries result from hitting a stationary object such as trolleys, equipment, fittings and fixtures. Often, overcrowding in the workplace is to blame and increases the risk of spills, slips and falls in the kitchen.

Best Practices in Crowded Workspaces:

- Always make sure that walkways are clear and surfaces are clutter-free.
- Do not hurry from one task to another: Running increases the chance of slipping and the severity of the injury.

- Remove empty boxes and containers as soon as possible.
- Try to organize the workflow to space employees evenly throughout the kitchen.

Strains and Sprains

Food service work can come with a host of strains and sprains. Handling of stock and deliveries, lifting and moving crates of food and wash trays are all part of a day's work in the foodservice industry. Lifting and handling heavy trays, boxes and other loads can cause chronic back pain and injury as well as shoulder, arm and neck problems. Standing for long periods of time on hard floors can lead to varicose veins. Muscle strains and musculoskeletal damage can occur at any time; injuries often happen as a result of:

- Overexertion—incorrect lifting of heavy objects;
- Overextension—overreaching while handling items; and
- Repetitive injuries—injuries due to muscle overuse or bad posture.

The best way to prevent injuries is to know your limits; keep correct posture; use a stepladder to avoid overreaching; and where possible, use equipment to limit the risk of overexertion.

Injury from Machines

Working with machines has associated risks, but there are steps you can take to lower those risks and avoid unnecessary injuries, including:

- Ensure adequate training for all staff.
- Make sure safety guards are in place before using equipment.
- Avoid wearing loose clothing that can get caught in machinery.
- Keep safety manuals for kitchen equipment in a designated place so that employees can refer to them if they have any questions or concerns.
- Post signs to remind workers of hazards such as "Unplug machine before cleaning blades."
- Ensure you have adequate space and not likely to be bumped into by other staff while operating machinery.
- Do not operate machinery with loose clothing or unbound hair that may likely become tangled in the machine. If the manufacturer has fitted guards, make sure you and your team know how to use them.

- Ensure emergency safety switches are within easy reach should your clothing become snagged or injury occurs.
- Remove all potential trip and slip hazards around your work area.
- Employees who use prep equipment with blades, such as mandolins and motorized slicers, should ideally wear cut-resistant gloves that cover their wrists and fit snugly.

Chemical Hazards

Working with chemicals is a daily part of keeping your kitchen clean and sanitized. It is essential to understand the different ways to use certain types of chemicals and sanitizers and the dangers if not used correctly.



Check with your supplier regarding any limitations or handling hazards and ensure:

- All chemicals are stored in a secure and dry location.
- All bottles are clearly marked.
- Eye protection and gloves are worn.

Eye, Nose and Throat Irritation

Cooking can generate unhealthy air pollutants from heating oil, fat and other food ingredients, especially at high temperatures. When grills and frying operations are not properly ventilated, they can produce a high concentration of dangerous fumes.

For example, acrolein (a common byproduct of frying hamburgers) can be extremely irritating to workers' eyes, noses and throats. Workers often complain of constant burning and watery eyes and sore throats.

Exposure to these irritants can cause or worsen a wide range of health problems such as nose and throat irritation, headaches, fatigue and nausea. Young children, people with asthma, and people with heart or lung disease are especially vulnerable to the harmful effects of indoor air pollution.

Studies show that air can be unhealthy to breathe when people cook in kitchens with poor ventilation. The best way to ventilate a kitchen is to use a properly installed, high efficiency range hoods over stoves. A high-efficiency range hood has a high cubic feet per minute (cfm) rating and a low sones (noise) rating.

Heat Stress

Exposure to excessive heat from working in commercial kitchens can lead to heat stress-related illnesses, such as heat exhaustion and heat stroke. At high temperatures, the body circulates significant amounts of blood to the skin in an effort to eliminate heat through perspiration. As a result, less blood is circulated to the body's vital organs, including the brain.

Heat exhaustion can lead to dizziness, blurred vision, nausea, and eventual collapse. If not treated promptly, by lowering the person's body temperature, a person suffering from heat exhaustion could suffer brain damage.

Even more serious than heat exhaustion is heat stroke. During heat stroke, the body stops sweating, making it impossible to dissipate heat. The body temperature may rise to a dangerously high level in a short time and may cause death.

Best Practices to Avoid Heat-Related Illness:

Recognized work practices include educating and training employees and supervisors to detect early signs of heat-related illness and have available first-aid workers to treat these illnesses.

Assessing work sites for potential hot work environments helps to identify and address ways to decrease heat hazards in these areas. For example, use recognized engineering, work practice and administrative controls, and personal protective equipment, including:

- General ventilation and local exhaust ventilation at points of high heat production.
- Spot cooling fans.
- Evaporative cooling and air conditioning.
- Protective clothing and equipment.
- Provide plenty of drinking water.
- Acclimatize, or gradually introduce employees to the hot environment, because the body gradually builds

up a tolerance to high temperatures. This process usually takes up to two weeks.

- Have employees wear light, loose-fitting, breathable (like cotton) clothing.
- Consider the employee's physical condition and recognize that older or obese workers and personnel on some types of medication are at greater risk. Assign these workers to jobs where heat stress is not an issue, if feasible; or, if not feasible, rotate these workers out of situations where heat stress is an issue on a more frequent basis.
- Alternate work and rest periods. Encourage frequent short breaks in cool areas to allow the body to cool down.
- Monitor temperatures, humidity and workers' responses to heat at least hourly.
- Train supervisors to detect early signs of heat-related illness, and permit workers to interrupt their work if they are extremely uncomfortable.
- Educate employees to recognize the need to replace fluids and salt lost through perspiration.

As we work to prevent work-related illness and injury for workers through negotiating with employers, we must find ways to help workers who have already suffered injuries at work. Many of these workers are pushed out of their jobs. The Americans with Disabilities Act may be a method for helping them keep their jobs.

For more information, contact the health and safety team at 4healthandsafety@aft.org [May 2022]