



## Kitchen Hazards

Click on the area for specific information



### Common safety and health topics

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## Ergonomics

\* Dietary employees must perform many lifting, reaching, and repetitive tasks as part of their job duties. Employee activities in this area, if occurring with sufficient duration, magnitude, and / or frequency, may create a musculoskeletal disorder (MSD).

- **Reaching/lifting:**

\* Frequent elevated extended reaches for supplies or heavy containers can cause back and shoulder injury resulting in muscle strain, bursitis, tendonitis, and rotator cuff injuries.

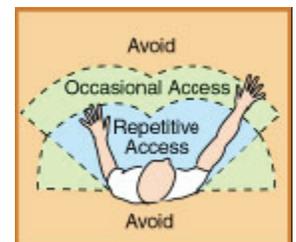
- **Repetitive motions:**

\* Rapid hand and wrist movements from frequent cutting, chopping, or scooping may lead to hand disorders such as tendonitis, carpal tunnel syndrome and tenosynovitis.

\*\* Possible Solutions – Assess worksites for ergonomics stressors and identify and address ways to decrease them such as:

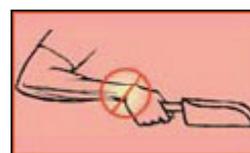
### Reaching / Lifting:

- Provide height adjustable workspaces appropriate for the task being performed, so that workers can keep elbows close to the body. For example, lower countertops, or use height adjustable countertops or stands, or provide work stands for employees.
- Redesign or reposition tasks to allow elbows to remain close to the body, ( e.g., turn boxes over on their sides to allow for easier access).
- Avoid awkward postures (e.g., repositioning work in front of work rather than reaching above or behind to get supplies).
- Lighten the load that needs to be lifted or get help when lifting.
- Ask your Agency for training on how to use proper lifting techniques.
- Make sure stepladder is in good condition and used for items that are not reachable.



### Repetitive Motions:

- When available use mechanical aids for chopping, dicing or mixing foods (e.g., food processors, mixers).
- Select and use properly designed tools. For example, kitchen scoops or kitchen knives that allows the wrist to remain straight.
- Maintain a neutral (handshake) wrist position.
- Restructure jobs to reduce repeated motions, forceful hand exertions, and prolonged bending.



**Bent Wrist**



**Straight Wrist**

#### Kitchen Knives



**30 Degree Bend**



**Upright Handle**



**Pistol Grip**



**45 Degree Bend**

## **Kitchen Equipment:**

Kitchen equipment pose special hazards to the dietary worker. Some of these hazards include: hot surfaces, which may cause burns; cuts and lacerations from the use of sharp objects, becoming caught in walk-in freezers, electrical shocks from contact with frayed electrical cords, and amputations from unguarded equipment.

### Possible Solutions:

- Employers must assess tasks to identify potential worksite hazards and provide and ensure employee use of appropriate Personal Protection Equipment (PPE) [[1910.132](#)].
- Employers shall require employees to use appropriate hand protection when hands are exposed to hazards such as cuts, lacerations, and thermal burns. Examples include the use of oven mitts when handling hot items, and steel mesh or Kevlar gloves when cutting [[1910.138\(a\)](#)].
- Ensure electrical equipment shall be free from recognized hazards [[1910.303\(b\)\(1\)](#)]. See [Electrical Safety](#).
- Good work practices include:
  - The safe handling, use, and storage of knives and other sharp utensils. Cutlery should be kept sharpened and in good condition: dull knives tend to slip and may cause injuries. The direction of the cut should always be away from the body.
  - Knives, saws, and cleavers should be kept in a designated storage area when not in use. The blades should not be stored with the cutting edge exposed. Knife holders should be installed on work tables to prevent worker injury. Knives and other sharp objects should not be put into sinks between periods of use. Newly purchased knives should be equipped with blade guards and knuckle guards that protect the hands from slipping onto the blade.
  - The wheels of food carts should be large, low rolling, low resistance wheels that can roll easily over mixed flooring as well as gaps between elevators and hallways.
  - Use appropriate PPE and training to avoid steam burns when working with hot equipment or substances.
  - When uncovering a container of steaming materials, the worker should hold the cover to deflect steam from the face.
  - The handles of cooking utensils should be turned away from the front of the stove.

 For more information, see the [Machine Guarding Section](#) for large mixers, slicers, and peelers.

### Additional Information:

- [Stove/Oven](#)
- [Dishwasher](#)
- [Toaster](#)
- [Blender](#)
- [Refrigerator](#)
- [Utensils](#)

## Fire Safety:

Possible fires from heat producing equipment such as burners, ovens, and grills due to:

- Poor Housekeeping
- Un-emptied grease traps (possible grease fires).
- Improper storage of flammable items.
- Fire Prevention Plan requirements. Evacuation, Plans and Procedures.
- [Faulty or Frayed electrical cords.](#)

Possible Solutions:

- Provide appropriate and effective employee training for safe handling of equipment.
- Keep grill and grill duct work free from flammable residues and properly maintained.
- Flammable items must be stored away from heat producing equipment.

\* Portable Fire Extinguishers [[1910.157](#)].

- Fixed dry chemical extinguishing systems used to fight grease fires must meet requirements of 1910.161 Dry chemical fire Extinguishers and Fixed Extinguishing Systems.
- Provide an emergency action plan, and fire prevention plan.
  - Emergency Action Plan (EAP):
    - If fire extinguishers are required or provided in your workplace, and if anyone will be evacuating during a fire or other emergency, then OSHA's [1910.157 standard](#) requires you to have an EAP.
      - [Am I required to have an emergency action plan?](#) OSHA's Expert System – Evacuation, Plans, and Procedures eTool.
      - [Should employees fight or flee a fire?](#) Evacuation, Plans, and Procedures eTool.
  - Fire Prevention Plan:
    - The purpose of a fire prevention plan is to prevent a fire from occurring in the workplace.
    - An employer must have a fire prevention plan when an OSHA standard requires one.
    - [Fire Prevention Plan requirements.](#) Evacuation, Plans, and Procedures eTool.

 For additional information, see – [Fire Hazard](#).

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## Hazardous Chemicals

### Potential Hazards

Employee exposure to possibly hazardous chemicals, such as pesticides, disinfectants, and hazardous drug in the workplace for example:

- Ammonia, used as a cleaning agent, and chlorine solutions used as a disinfectant in dishwashing, can cause skin, eye, and nose irritations. (Avoid mixing chlorine and ammonia solutions because a chemical reaction may occur and deadly chlorine gas may be released.)
- Drain cleaners, oven cleaners, and grill cleaners can be caustic solutions that can cause skin burns and eye and skin irritations.

### Possible Solutions

- Implement a written program which meets the requirements of the [Hazard Communication Standard](#) to provide for worker training, warning labels, and access to Material Safety Data Sheets (MSDS).
- Provide appropriate PPE (e.g., gloves, goggles, splash aprons) when handling hazardous detergents and chemicals. For more information see – [PPE](#).
- Medical Services and First Aid: Where the eyes or body of any person may be exposed to corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
- To avoid employee contact with dishwashing detergents, good work practices recommends using dishwashing machines with automated detergent dispensers.
  - Workers must still be cautious and use appropriate PPE (e.g., goggles, and/or gloves) when changing out the containers of detergent.

 For more information, see – [Hazardous Chemicals](#).

## Machine Guarding

### Potential Hazards

Commercial dough mixers and other kitchen equipment pose a hazard to workers from being caught in or by the rotating blades and can present various hazards to employee such as amputation, strangulations, burns, cuts, broken bones and other injuries. These machines must have guards in place to protect the worker from reaching in, or being pulled into, these hazards.

### Possible Solutions

- OSHA Machine Guarding Standard, requires that: Machine guards are provided to protect the operator and other employees in the machine area from hazards [1910.212(a)(1)].
  - Meat slicers must be properly guarded and operated by workers trained in safe work practices to avoid cuts and amputations.
    - Use Tamps or push sticks or other hand tools to feed or remove food from grinders, slicers, or choppers.
  - Machine guarding can be accomplished by isolating hazards (e.g., providing barrier guards over a mixer when it is in use to prevent strangulation or amputations).
    - Other methods of machine guarding include:
      - Two-handed tripping devices.
      - Electronic safety devices.
    - Examples of machine guarding for General Industry-Bakery equipment can be found in [1910.263]. Paragraph (c) addresses general requirements for machine guarding in Bakeries.

### Additional Information:

- [Machinery and Machine Guarding](#), 1910 Subpart O.
- [Machine Guarding](#), Safety and Health Topics Page.
- [Machine Guarding](#), OSHA Publication 3067.
- [1910.212](#), OSHA Machine Guarding Standard.

## Food Borne Disease

Food borne diseases, including food borne intoxications and food borne infections, are illnesses contracted by eating contaminated food. Contamination can arise from toxins and bacterial growth that can occur before the food is eaten, or after the food is ingested, and are caused by such organisms as Escherichia coli (E-coli), Salmonella, Staphylococcus Aurous, and Clostridium Perfringens.

OSHA Standard 1910.141(h) states "In all places of employment where all or part of the food service is provided, food must be handled, processed, prepared, and stored in such a manner as to protect against contamination". However, food borne disease is primarily a public health concern and in most instances is regulated by local health authorities who enforce their own specific requirements.

### Potential Hazard

- Employees may develop food borne illness from eating or handling contaminated food.

### Possible Solutions

Contact local public health authorities for specific requirements in your area.

Recommended good work practices help ensure effective hand washing techniques, good personal hygiene, and safe food handling/preparation.

- [Food Safety](#): Government food safety information site.
- [Food Code](#): FDA published 1999 reference guide. Provides guidance on how to prevent food borne illnesses in facilities such as nursing homes.

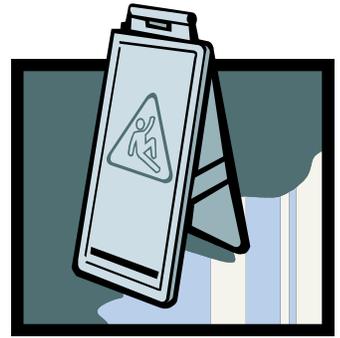


### Additional Information:

- [Assessing the Problem of Food borne and Waterborne Diseases](#). CDC/NCID.

## Slips/Trips/Falls

Employee exposure to wet kitchen floors or spills and clutter can lead to slips, trips, falls, and other possible injuries.



### Possible Solutions

- Floors shall be kept clean and dry. In addition to being a slip hazard, continually wet surfaces promote the growth of mold, fungi, and bacteria which can cause infections.
- Keep aisles and passageways clear and in good repair, with no obstruction across or in aisles that could create a hazard. Provide floor plugs or ceiling plugs for equipment, so power cords do not run across pathways.

 For additional information, see - [Slips/Falls](#).

## Electrical Safety

### Potential Hazard

Electrocution or shock from unsafe work practices, faulty electrical equipment, or wiring.

### Possible Solutions

Employers must:

- Ensure that all electrical service near sources of water is properly grounded.
  - [Grounding requirements for equipment connected by cord and plug](#). Interpretation letter, (12/21/1999).
- Ensure electrical equipment will be free from recognized hazards.
- Tag out and remove from service all damaged receptacles and portable electrical equipment.
- Repair all damaged receptacles and portable electrical equipment before placing them back into service.
- Ensure that employees are trained to not plug or unplug energized equipment when their hands are wet.

Employers should use [ground-fault circuit interrupters \(GFCIs\)](#) on all 120-volt, single-phase, 15- and 20-ampere receptacles.



Receptacle Type (GFCI)

 For additional information, see - [Electrical Hazards](#).

### Additional Information:

- OSHA Construction eTool: [Ground-fault Circuit Interrupters](#).
- [Preventing Electrocution of Workers in Fast Food Restaurants](#). NIOSH Pub No. 85-104 (1984, December).
- [Preventing Electrocutions from Damaged Receptacles and Connectors](#). NIOSH Pub No. 87-100 (1986, October).

## Infectious Materials in Isolation Rooms

### Potential Hazard

Dietary employees may be exposed to respiratory hazards, blood or OPIM, if they are required to take dietary trays to patients in isolation rooms. Exposure to infectious materials may also occur when handling red bagged contaminated food trays that have come from isolation rooms, to the kitchen to be sterilized.

### Possible Solutions

- Establish Universal Precautions:
  - Universal Precautions: An approach to infection control which treats all human blood and other potentially infectious materials (OPIM), as if they were infectious for HIV and HBV or other bloodborne pathogens.
  - Universal Precautions 1910.1030(d)(1) in The Bloodborne Pathogens Standard requires:
    - Treat all blood and other potentially infectious materials with appropriate precautions such as: Use gloves, masks, and gowns if blood or OPIM exposure is anticipated.
    - Use engineering and work practice controls to limit exposure.
- Educate and train all exposed employees to safely enter and exit isolation rooms and to safely handle food trays coming from isolation rooms.
- Encourage staff to special bag contaminated trays coming from isolation rooms and label the bag with what precautions are
- necessary to safely handle the contents (e.g., use universal precautions).
- Use only disposable trays and plastic ware in isolation rooms.

 For additional information, see - [Tuberculosis](#), [Bloodborne Pathogens](#), and [Universal Precautions](#).

## Health Effects Repetitive Motions

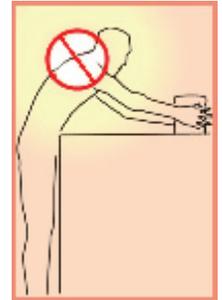
- Performing hand intensive tasks with a bent wrist creates considerable stress on the tendons and their sheaths as they are bent across the harder bones and ligaments which make up the outside structure of the wrist.
- As the fingers are activated the tendon slides through the sheath and over the hard parts of the bent wrist pinching the sheath between the tendon and these hard entities.
  - Repetitive finger activations in these postures can create wear and tear on the tendon and the sheath.
  - Prolonged forceful finger exertions in these postures can stretch and fray the tendon and create contact trauma to the sheath.



This wear and tear, fraying, or contact trauma can create irritation and swelling which may lead to tendonitis, Tenosynovitis, and potentially Carpal Tunnel Syndrome.

### Health Effects Reaching/Lifting:

- Repeatedly lifting the arms or repeatedly reaching can irritate the tendons or bursa of the shoulder leading to Bursitis or [Rotator cuff Tendonitis](#). Supporting or lifting a load with the arm elevated or extended can lead to injuries such as muscle strain or rotator cuff tears.
- Working with the arms in an elevated posture or behind the back can lead to impingement injuries such as [Thoracic Outlet Syndrome](#).



### Additional Information:

- [Musculoskeletal Disorders and Workplace Factors](#). CDC (1997, July).

## Fire Hazards

### Potential Hazards

The potential for fire can occur from many different sources such as: heat-producing equipment, storage of flammable chemicals, and faulty electrical wiring.

### Possible Solutions

OSHA Fire Safety requirements include:



- A safe means of egress from fire and like emergencies.
  - Employers must comply with OSHA Standards on Means of Egress 1910 [Subpart E], including:
    - A minimum of 2 exits or means of egress are required.
    - Exits must be clearly marked.
    - Access to exits must remain clear of obstructions at all times.
- Construction or Maintenance Operation Areas:
  - Any area under construction or under maintenance must:
    - Continuously maintain existing exits and any existing fire protection, or other measures which provide equivalent safety.
    - Not be occupied in whole or in part until all exits required for that part are completed and ready for use.
    - Have travel from exits to outside continuously free and clear of obstruction.
- Wiring methods, components, and equipment for general use.
- "Housekeeping." The employer shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.
  - The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.
  - The employer shall review with each employee upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency.
  - "Maintenance." The employer shall regularly and properly maintain, according to established procedures, equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.

- If employees are to fight fires, the employer must decide if all employees or just designated employees will fight fires, or if a fire brigade will be trained and equipped. Fire Brigades [[1910.156](#)]. Portable Fire Extinguishers [[1910.157](#)].
- If employees are not to fight fires, (i.e., employer relies on safe evacuation of all employees and outside services, e.g., local fire stations to fight fires). Employers must provide an Emergency Action Plan, [1910.38\(a\)](#) and a Fire Prevention Plan, [1910.38\(b\)](#) following the requirements of [1910.38](#).

Additional Information:

- [Fire Protection, Safety and Health Topics Page](#), provides complete requirements.
- [1910 Subpart L OSHA Fire Protection Standard](#).
- [Workplace Fire Safety OSHA Fact Sheet](#).

## Additional Kitchen Equipment

- Stove/Oven:
  1. Keep all handles of pots and pans turned inward. Avoiding bumping into handles and spilling hot contents on self!
  2. When uncovering a container of steaming materials, use the cover to deflect steam from the face.
  3. Use appropriate PPE and training to avoid steam burns when working with hot equipment
- Dishwasher:
  1. Need to have a maintenance schedule up to date and in order.
  2. Bleach concentration should be correct amount.
- Toaster:
  1. Never use appliances that have frayed cords.
  2. Should be familiar with equipment and know how to use it.
  3. Toasters can get really hot be careful when taking bread out.
- Blender:
  1. Never use appliances that have frayed cords.
  2. Should be familiar with equipment and know how to use it.
  3. Never place hand inside of blender while it is running
  4. Always unplug first if you need to dislodge something from inside.
- Refrigerator:
  1. Temperature Logs need to be up to date and posted near the unit.
  3. All food should be covered, labeled and dated.
  4. No personal food should be stored in these refrigerators, unless designated.
- Utensils:
  1. Knives, saws, and cleavers should be kept in a designated storage area when not in use.
  2. The blades should not be stored with the cutting edge exposed.
  3. Knife holders should be installed on work tables to prevent worker injury.
  4. Newly purchased knives should be equipped with blade guards and knuckle guards that protect the hand from slipping onto the blade.

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- Storage:
  1. All the food needs to be labeled, dated and covered with wrap.
  2. Temperatures Logs need to be up to date! Also they need to be checked 3 times a day
  3. Area should be free of pests.
- Preparation :
  1. Always wear gloves when preparing food, serving or putting it away.
  2. Don't forget to wear hairnets while in the kitchen at all times.
- Disposal/Cleaning:

\* Remember to always use good work practices help ensure effective hand washing techniques, good personal hygiene, and safe food handling / preparation!!

\*\*Reminders:

- Cover, Label and Date all food and dessert trays!
- Temperature Logs should be up to date and checked 3 times a day.
- Wear gloves at all times when preparing meals.

## Dish Washing Station

- Be careful with HOT water
- Don't forget to put down non slip floor mats in high traffic areas. Preventing slips and falls!
- Be familiar with the chemicals you use on a daily basis.
- Know how to read the MSDS forms.
- Clean up any excess water off the floor when possible, or place a wet floor sign warning others of a slip and fall hazard!!

## Housekeeping:

- All areas to be clean & free of debris
- Check lint trap frequently (this is a fire hazard).
- Should clean behind washers and dryers on a regular basis preventing lint built up and other miscellaneous items from piling up (this is a fire hazard).
- Clean up any excess water on the floor as soon as spills occur preventing any slips and falls