

M10-EN.9 DIETARY DEPARTMENT

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M10-EN.9.1 Food Borne Diseases

The consumption of contaminated food is dangerous for all the employees at a health care institution. In the dietary department, where the food service is provided; handling, processing, preparation and storage of food must be done in such a way for the protection against any possible contamination. Nevertheless, dietary personnel may develop food borne diseases from eating or handling contaminated food. Food borne diseases (including intoxications and infections), are illnesses occurred due to the consumption of contaminated food. Contamination can be a result of toxins and bacterial growth that can happen before the consumption of food, or after the food ingestion, and are caused by organisms such as Escherichia coli (E-coli), Salmonella, Staphylococcus Aurous, etc.

Safety Precautions and Good Practices

Employers must give instructions on effective hand washing techniques, good personal hygiene, and safe food handling/preparation. For example:

- Wash hands carefully before preparing food (**M10.9.1.jpg, M10.9.2.jpg**)
- Wash hands, utensils, and kitchen surfaces with hot soapy water after they touch raw meat or poultry
- Cook beef and beef products thoroughly, especially hamburger
- Cook poultry and eggs thoroughly
- Eat cooked food promptly and refrigerate leftovers within 2 hours after cooking
- Wash fruits and vegetables thoroughly, especially those that will be eaten raw
- Drink only pasteurized milk and juices and treated surface water
- Wash hands carefully after using the bathroom, changing infant diapers

M10-EN.9.2 Infectious Materials in isolation rooms

Employees may be exposed to respiratory hazards, blood or OPIM, if they are required to take dietary trays to patients in isolation rooms. Exposure can also occur while handling bagged contaminated food trays that have come from isolation rooms, to the kitchen for their sterilisation.

Safety Precautions

- Treat all human blood and OPIM, as if they were infectious for HIV and HBV or other blood borne pathogens
- Use proper PPE such as gloves, masks, and gowns
- Use specific bags properly labelled, to transfer contaminated trays from isolation rooms.
- Use only plastic and disposable trays in isolation rooms
- Employees must have appropriate education and training on how to:
 - safely enter and exit isolation rooms, and
 - handle food trays coming from these rooms

M10-EN.9.3 Hazardous Chemicals

In the kitchen area, exposure, especially to hazardous chemicals, such as ammonia, chlorine solutions, caustic solutions, pesticides, disinfectants, and hazardous drugs, is possible. Ammonia is most frequently used as a cleaning agent, and chlorine solutions as disinfectants in dishwashing. They can cause skin, eye, and nose irritations. Drain, oven, and grill cleaners can be caustic solutions causing skin burns and eye and skin irritations.

Safety Precautions

- Avoid mixing chlorine and ammonia solutions (deadly chlorine gas is released)
- Use dishwashers with automated detergent dispensers, to avoid contact with dishwashing detergents.
- Be cautious and use proper PPE while changing the detergent containers

Employers should provide:

- Proper training, warning labels, and access to Material Safety Data Sheets for chemical hazards
- Proper PPE (e.g. gloves, goggles, etc) when handling hazardous detergents and chemicals

M10-EN.9.4 Ergonomics

Dietary personnel have to perform several tasks as part of their daily duties. These activities, if they occur repeatedly, with sufficient duration, and magnitude, may create a musculoskeletal disorder, for example:

Reaching/lifting movements

Elevated and extended reaches for supplies or heavy containers, can cause back and shoulder injury resulting in muscle strain, bursitis, tendonitis, and rotator cuff injuries. When employees repeatedly lift their arms or repeatedly reach can irritate their tendons of their shoulder leading to tendonitis. Injuries can result from the supporting or lifting of a load with the arm elevated or extended. These injuries can be muscle strain or rotator cuff tears. Working with the arms in an elevated posture, or behind the back, can lead to impingement injuries (e.g. Thoracic Outlet Syndrome). (M10.9.3.jpg, M10.9.4.jpg)

Repetitive motions

Rapid hand and wrist movements, resulted from frequent cutting, chopping, or scooping may lead to hand disorders such as tendonitis, carpal tunnel syndrome, and tenosynovitis. When employees perform intensive hand tasks with a bent wrist, an extensive stress is created 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. When finger activations are repeated 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 hand disorders.

Safety Precautions

- Place work in front of you rather than having to reach above or behind to get supplies, in order to avoid as much as possible awkward postures
- Try to keep wrist in a neutral (handshake) position
- Use mechanical aids to reduce the need to lift. Use a spring device to automatically lift a load (e.g. use automatic plate and cup riser dispensers)
- Use mechanical aids for chopping, dicing or mixing foods (e.g. food processors, mixers). Use properly designed tools, such as kitchen scoops or knives that allow the wrist to remain straight

Employers are required to:

- Assess workplace for ergonomic stressors, identify them, and decrease them
- Redesign tasks allowing elbows to remain close to employees' body (e.g. turning boxes over on side allowing easier access),
- Reduce repeated motions, forceful hand exertions, and prolonged bending (M10.9.5.jpg), by:
 - Rotating workers through repetitive tasks
 - Using mechanical aids for chopping, dicing or mixing foods (e.g., food processors, mixers)
 - Selecting and using properly designed tools. For example, kitchen scoops or knives allowing the wrist to remain straight
 - Ensuring that the personnel maintain a neutral (handshake) wrist position
- Provide appropriate training on the use of proper lifting techniques

- Provide height adjustable workstations appropriate for the task being performed (e.g. lower countertops, or height adjustable countertops or stands)
- Provide food carts with wheels that are large, low rolling, low resistance that can roll easily over mixed flooring, as well as gaps between lifts and passageways

M10-EN.9.5 Kitchen Equipment

Kitchen equipment encloses several hazards such as: hot surfaces that can 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.

Safety Precautions and Good Work Practices

- Handle, use and store knives and other sharps with caution. Cutlery should be kept sharpened and in good condition, due to the fact that dull knives tend to slip and may cause injuries. The direction of the cut should always be away from the body (M10.9.6.jpg)
- Turn the handles of cooking utensils away from the front of the cooker
- A designated storage area must exist for keeping knives, saws, and cleavers when these are not in use. The blades must not be stored with the cutting edge exposed. Knife holders should be installed on work tables for the prevention of an employee's injury. Knives and other sharp objects should not be put into sinks between periods of use. Newly purchased knives must be equipped with blade guards and knuckle guards for the protection of the hand from slipping onto the blade
- Hold the cover for deflecting the steam from their face, when they uncover a container of steaming materials
- Use proper PPE, such as gloves (e.g. for the protection of cuts, burns, etc), gowns (e.g. protecting from splashes of hot liquids), etc

Employers are required to:

- Provide training to the employees on how to avoid steam burns while working with hot equipment or substances.
- Provide appropriate PPE, e.g. hand protection while exposure of hands to hazards such as cuts, lacerations, and thermal burns. PPE can also be oven mitts while handling hot items, and steel mesh gloves while cutting
- Install a panic bar at walk-in freezers, or other means of exit on the inside of freezers to prevent trapping employees inside

M10-EN.9.6 Machine Guarding

Kitchen equipment can pose a hazard to kitchen personnel from being caught in or by rotating blades. Various hazards exist, such as amputations, strangulations, burns, cuts, broken bones, and other injuries. It is essential that these machines have guards in place for the protection of the employee from reaching in, or being pulled into, these machines.

Safety Precautions

- Use tamps or push sticks or other hand tools when feeding or removing food from grinders, slicers, or choppers
- Isolate hazards (e.g. put barrier guards (**M10.9.7.jpg**) over a mixer when it is in use for preventing strangulation or amputation)
- Provide machine guards to protect machine's operator and/or other employees near the machine from hazards. Meat slicers, these must be properly guarded and operated only by a person trained in safe work practices to avoid cuts and amputations (**M10.9.8.jpg**)
- Place guard on continuous feed dishwashers to prevent any accidental scalding of employees by steam and hot water, and possible nip-point injuries from rollers and conveyors

Other methods of machine guarding include:

- Two-handed tripping devices
- Electronic safety devices

M10-EN.9.7 Electrical Safety

A possible electrical hazard in the dietary department is electrocution or shock due to unsafe work practices, faulty electrical equipment, or wiring.

Safety Precautions and Good Practices

- Use properly grounded electrical equipment near sources of water
- Do not plug or unplug energized equipment with wet hands.
- Tag out every damaged receptacles and portable electrical equipment and remove from service
- Report any damage on any electrical equipment in use
- Ensure that every damaged receptacles and portable electrical equipment is repaired prior to its placement back into service.

M10-EN.9.8 Fire Safety

Potential source of fire is the heat from equipment such as burners, ovens, and grills, because of:

- Poor housekeeping
- Grease traps that are not emptied (possible grease fires)
- Dirty ducts (possible flue fires)
- Inappropriate storage of flammable items
- Faulty or worn electrical cords

Safety Precautions

- Keep grill and grill duct work free from flammable residues and properly maintain them
- Store flammable items away from heat producing equipment
- Routinely empty the grease traps

Employers are required to provide their personnel with:

- Training on how to handle with safety the equipment in the dietary department
- Adequate number of portable fire extinguishers
- An emergency action plan so they will know how to act in case of an emergency, and a fire prevention plan

M10-EN.9.9 Heat stress

Heat related health mild effects on health care workers include increased fatigue, discomfort and incapability to concentrate. More intense effects can occur, such as heat stroke, exhaustion, cramps and fainting. The most common departments in a hospital for high-temperatures are the boiler room, the kitchen and laundry, but if the building is old, then inadequate ventilation and cooling systems can create a heat hazards during summer time in every department. In addition, heat exposure can cause many problems where the temperatures are higher and health care personnel have to wear personal protective equipments such as gowns, masks, caps and gloves.

Safety Precautions

Employers should be aware of engineering and work practice controls such as:

- Having general ventilation and local exhaust ventilation at points of high heat production
- Provide employees and supervisors, with education and training on the detection of early signs of heat-related illness
- Provide protective clothing and equipment, as well shields in case of radiant heat
- Provide large quantities of drinking water
- Place cooling fans and air conditioning in a high temperature area
- Rotate work and breaks. Prefer frequent short breaks in cool areas, allowing employees' body to cool down
- Consider the employee's physical condition and recognize that older or obese workers and personnel on some types of medication are at greater risk.
- Encourage employees to perform the heaviest work in the coolest part of the day.
- Encourage employees to wear light, loose-fitting, breathable (like cotton) clothing.
- Encourage employees to avoid using caffeine and alcoholic beverages while working in hot environments. These beverages make the body lose water and increase the risk for heat illnesses.
- Alternate work and rest periods. Encourage frequent short breaks in cool areas to allow your body to cool down.

- Monitor temperatures, humidity and workers' responses to heat at least hourly.
- Supervisors should be able 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.

First aid employees must be available; in order to recognize and treat heat related illnesses. By identifying the first signs of heat exhaustion, (e.g. dizziness, light-headedness, weakness, blurred vision, nausea), the first aid employees must take immediate action to lower the employee's body temperature, preventing the progression of symptoms, such as removing the employees who are suffering from heat exhaustion from the hot environment and instantly give them cold water to drink. If they do not feel better in a while, then emergency help should be asked. The employees responsible for the first aid must also know how to recognize the signs of heat stroke that can be fatal. These symptoms include severe headache, mental confusion, loss of consciousness, flushed face, and hot, dry skin, without sweating. In case that an employee has stopped sweating, medical attention must be asked immediately. If an employee shows signs of possible heat stroke, professional medical treatment must be obtained immediately

In any case, temperatures should be monitored, as well the humidity and employees' responses to heat at least every hour. It is recommended that employees to be adapted, or gradually introduced to the hot environment, because their body gradually builds up a tolerance to high temperatures. This process can take up to two weeks.

Supervisors must be able to detect early signs of heat-related illness and permit workers to have a break if they are extremely uncomfortable. The employee's physical condition must be considered, understand that older or overweight personnel are at greater risk, as well and those on some types of medication.

M10-EN.9.10 Slips/Trips/Falls

Employees working at the dietary department are exposed to wet kitchen floors or spills and clutter, which can lead to slips, trips, falls, and other possible injuries.

Safety Precautions

- Keep floors and passageways clean, dry, clear and in good condition. Have in mind that continually wet surfaces promote the growth of mould, fungi, and bacteria which can cause infections
- Employers should place floor plugs or ceiling plugs for the equipment used in the dietary department, so that power cords do not run across pathways