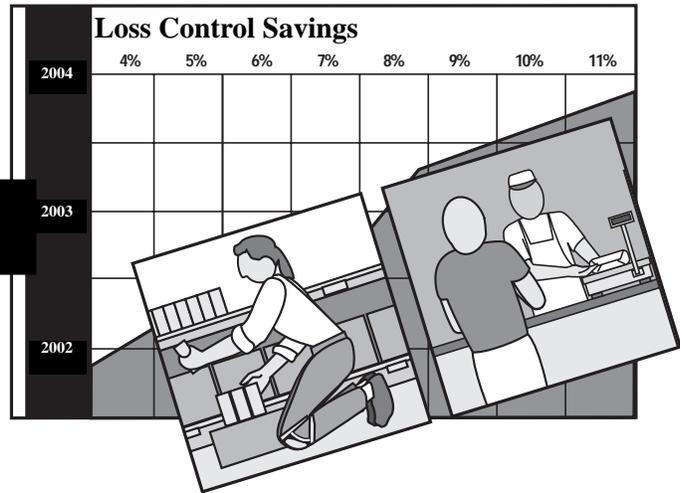




STOREWIDE ERGONOMIC SOLUTIONS

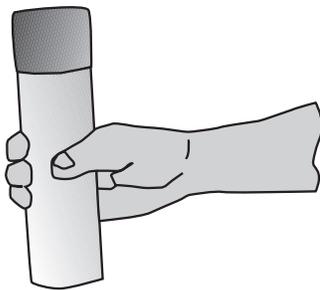
This section describes storewide ergonomic principles on safe work practices employees can follow to reduce their risk of injury. Employers should train employees to use these techniques and design stores to make it easy to do so.



Power Grips

A power grip uses the muscles of the hand and forearm effectively, and is less stressful than a pinch grasp. Consequently, a one- or two-handed power grip should be used whenever possible.

A power grip can be described as wrapping all the fingers and the thumb around the object that is being gripped. It is sometimes described as making a fist around the object being gripped.

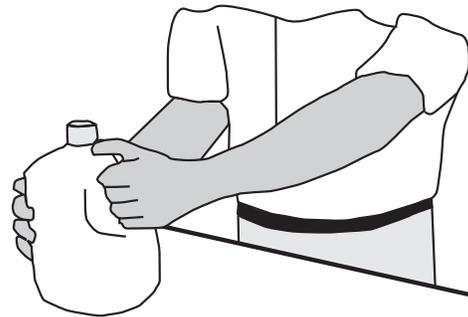


The power grip can be used for many items, including bags, cans and small boxes.



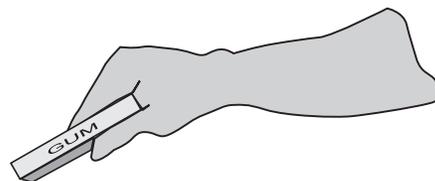
Power Lifts

When the item to be grasped is too heavy or bulky to lift with a one-hand power grip, use the two-hand power grip.



Pinch Grasps

A pinch grasp should never be used when a power grip can be used instead. However, a pinch grasp is acceptable for small, light items (e.g., a pack of gum, etc.)



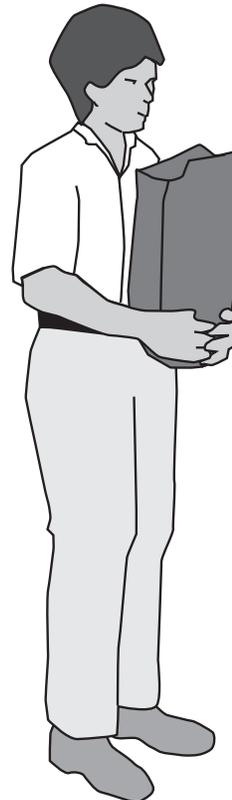
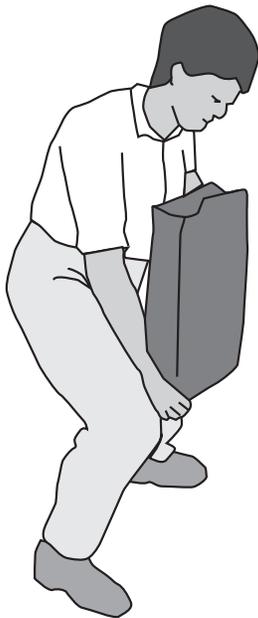
STOREWIDE ERGONOMIC SOLUTIONS

Lifting Safety

Most grocery store jobs involve some lifting. It is important that employers provide employees with help to lift heavy or bulky items. Whether a particular lift will require assistance depends on several factors, including the weight and size of the object, how frequently the object is lifted, how close the object is to the ground, how high it must be lifted, how far it must be carried and whether it has handles. Assistance can include a dolly or cart, or help from a co-worker. Employees should be trained in the use of appropriate lifting techniques for different sizes of objects as well as to when it is appropriate to seek assistance.

When holding, lifting or carrying items

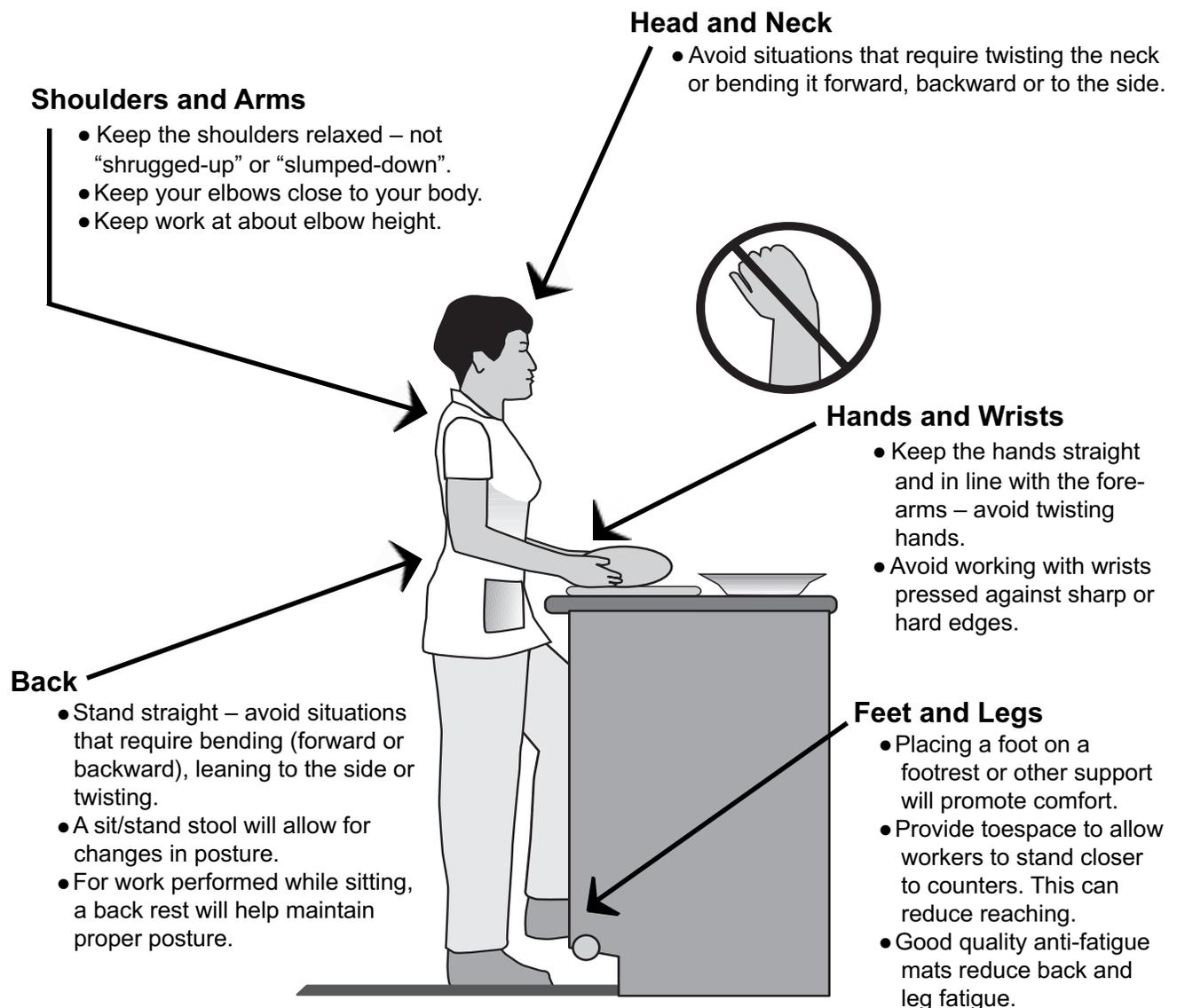
- Before lifting boxes and cases, check the weight so you can prepare to lift properly.
- Turn the body as a unit to avoid twisting at the waist.
- Keep the item close to your body.
- Keep your back straight.
- Use your leg muscles to do the lifting.
- Lift smoothly without jerking.
- Get close to where you want to set the item down.



STOREWIDE ERGONOMIC SOLUTIONS

Recommended Working Postures

Recommended Working Postures describe body positions that are neutral and comfortable to use. Using postures other than those recommended will generally waste energy and motion as well as potentially raise the risk of injury. It's also important to change position frequently and stretch between tasks. This improves circulation and lessens fatigue.



The Basics of Neutral Working Postures

STOREWIDE ERGONOMIC SOLUTIONS

Best and Preferred Work Zones

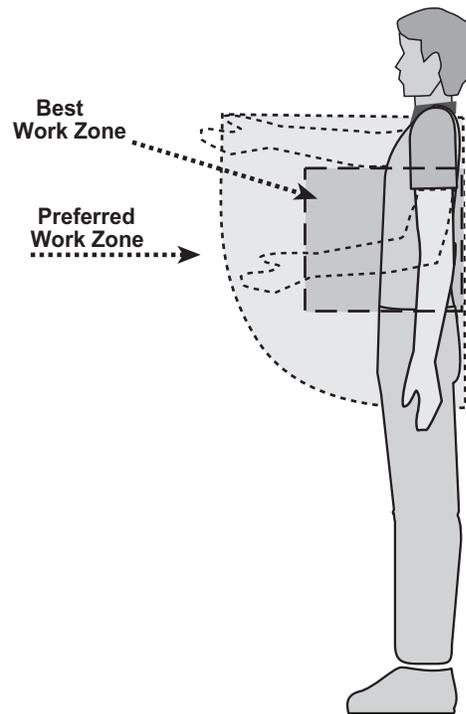
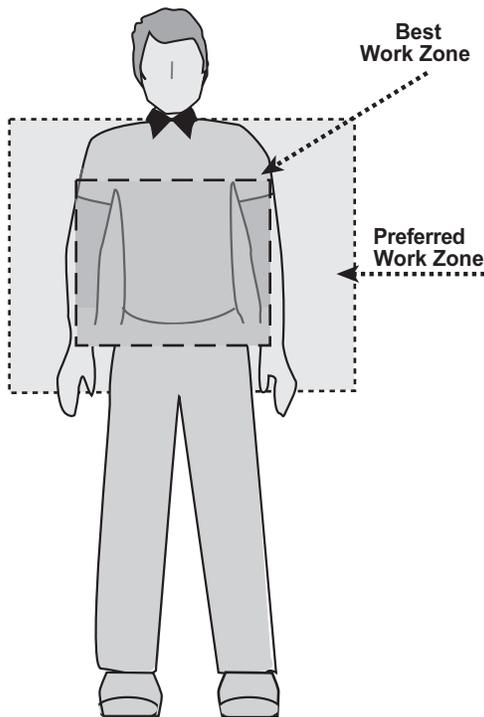
Performing work within the best and preferred work zones shown below facilitates productivity and comfort. Work is safest when lifting and reaching is performed in these zones. Working outside these work zones results in non-neutral postures that may increase the risk of injury. It is particularly important to perform heavy lifting tasks within the best work zone.

Best Work Zone

- As far forward as your wrist when you hold your arm slightly bent
- As wide as the shoulders
- Upper level at about heart height
- Lower level at about waist height

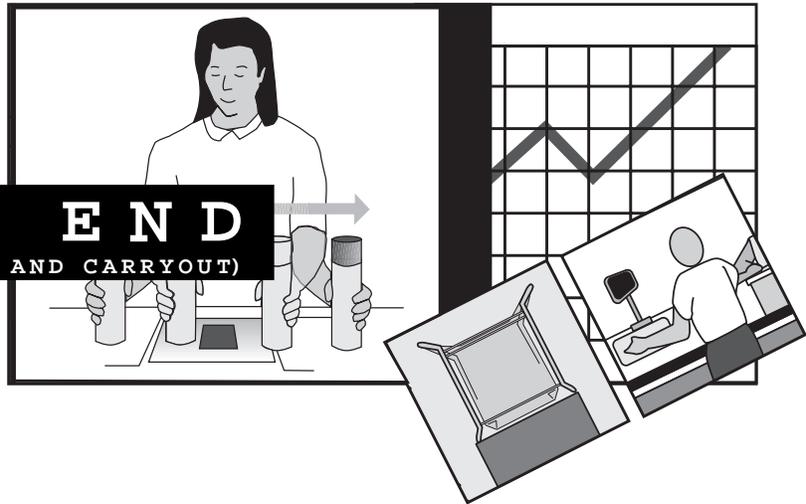
Preferred Work Zone

- As far forward as your hand when you hold your arm out straight
- A foot on either side of the shoulders
- Upper level at shoulder height
- Lower level at tip of fingers with hands held at the side.

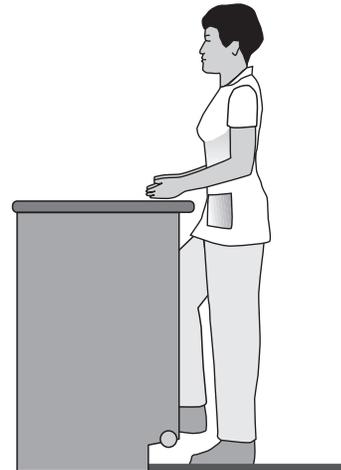
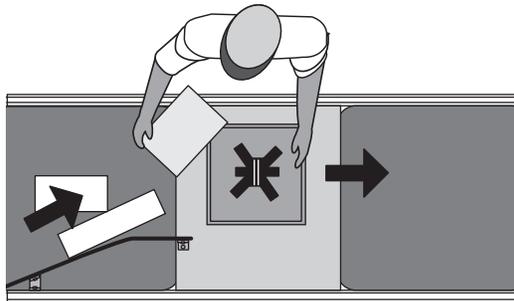


FRONT END

(CHECKOUT, BAGGING AND CARRYOUT)



- Use a powered in-feed conveyor to help cashiers bring the items to their best work zone, rather than leaning and reaching to get items further up the conveyor.
- Use a “sweeper” to move items on the conveyor within the checker’s reach.
- Provide foot rests for cashiers. Alternately resting the feet helps to reduce fatigue.



- Locate commonly used items such as the cash drawer and printer within easy horizontal reach.
- Place in-feed and take-away conveyor belts as close as possible to the cashier to minimize reaching.
- Consider using checkstands designed with an adjustable sit/stand or lumbar support against which cashiers can lean.
- Remove, round-off, or pad sharp or hard edges with which the cashier may come into contact.
- Provide adequate toe space (at least 4 inches) at the bottom of the workstation. Toe space allows cashiers to move closer to the checkstand, decreasing reaching requirements.
- Use footrests and anti-fatigue mats in areas where workers stand for prolonged periods. Standing on anti-fatigue mats, as compared to bare floors, provides a noticeable improvement in comfort.
- Place the conveyor belt electronic eye close to the scanner, but allow sufficient area between the eye and the scanner to orient items and to ensure the belt does not push items into the scanning field.
- Perform work within the preferred work zone.

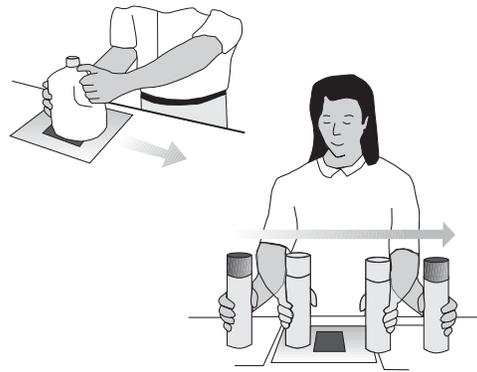
- Consider using keyboards to enter the quantity of identical products rather than scanning each individual item.
- Use keyboard to enter code if item fails to scan after second attempt.



- Place keyboards on supports that adjust in height, horizontal distance and tilt to keep work within the preferred work zone.
- Use front facing checkstands to reduce twisting motions and extended reaches to the side.



- Adjust the checkstand height to match the cashier's waist height, or use a platform.
- Place cash register displays at or slightly below eye level.
- Use scan cards or scan guns for large or bulky items to eliminate the need to handle them

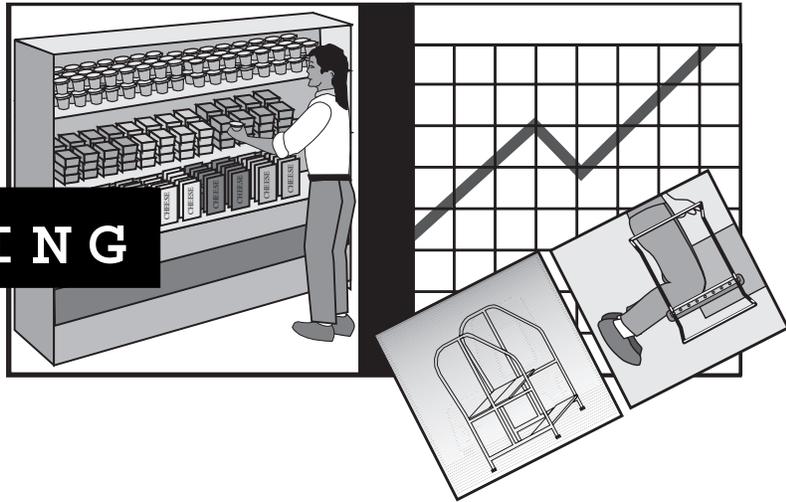


- Set scanners and conveyors at the same height so that cashiers can slide items across rather than lift them.
- Establish a regular maintenance schedule for scanners; clean dirty plates and replace scratched ones.
- Use combined scales/scanners.



- Provide an adjustable-height bag stand. In bagging areas, the tops of plastic bags should be just below conveyor height.
- To avoid extended reaches when loading bags into carts, move carts closer to the employee.
- Use bags with handles. Handles make the bags easier and less stressful to carry.
- Use carts to carry bags and groceries outside the store.
- Consider using powered-tugs when retrieving carts from the parking area. Powered tugs facilitate moving more carts with more efficiency and less effort.

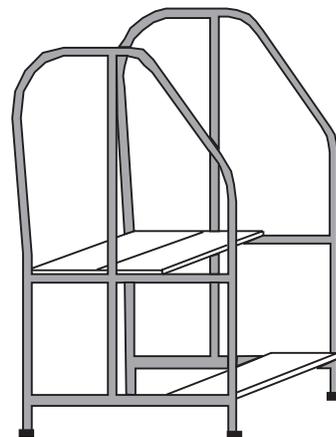
STOCKING



- Keep cases close to the body when lifting and carrying in order to reduce stress to the back.
- Use thermal gloves when stocking frozen foods. Cold temperatures can reduce circulation, causing stress on the hands. If pricing, use a glove with textured fingertips to wipe frost from frozen foods.
- Use a step stool to reach items on the top of pallets or on high shelves.



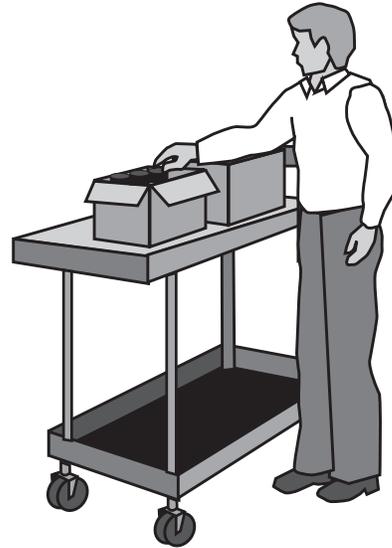
- Use knee pads when stocking low shelves for long periods of time. This reduces the stress on the knees and legs when kneeling.



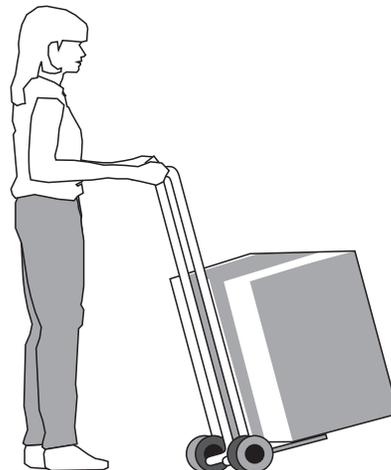
- Use a kneeler or stool when working at low shelves for long periods of time. This reduces stress on the knees and legs when squatting and kneeling.
- Rotate stocking tasks to avoid prolonged kneeling, squatting, and overhead reaching.
- Use a cart to move items from the pallet to the shelving or case where they are stocked.
- Keep cart wheels well maintained. Wheels that are in poor repair can be difficult to push. Racks or carts with bad wheels should be removed from service until they can be repaired.

- Arrange shelves so that heavy items and fast-moving items are stored within easy reach. This reduces the stress on the body caused by bending or reaching overhead.
- Use the correct safety cutter for the job. Be sure to supply a left-handed cutter if the employee is left-handed.
- Keep safety cutters sharp. Using dull tools requires more force. Replace cutter blades often.
- Report improperly stacked pallets to the supplier to reduce future problems.
- Ensure that the floor areas are level and free of debris and spills. Report any floor problems that need repair immediately.
- Use boxes or totes with hand holds, where suitable.
- Work with suppliers to get lower weight boxes to reduce the weight manually lifted. Industry groups such as the Grocery Manufacturers of America and Food Marketing Institute encourage all companies to use containers and packages that weigh 40 pounds or less. (14)
- Use carts with larger wheels so they are easier to push. Use carts with raised bottom shelves so the employee can maintain more neutral body position when lifting or placing cases.
- Ensure that there is adequate room around carts and pallets for lifting tasks. Workers should be able to walk around the pallet or cart, rather than reaching or bending.
- Avoid congestion in grocery store aisles so employees have adequate room to sort cases, open cases, mark merchandise, and stock shelves.
- Equip stockrooms and central processing areas with roller bed conveyors and turntables to reduce lifting and carrying. Maintain turntables so they move easily and with little force required by the worker. Maintain rollers to reduce the pushing and pulling forces needed to handle cases.

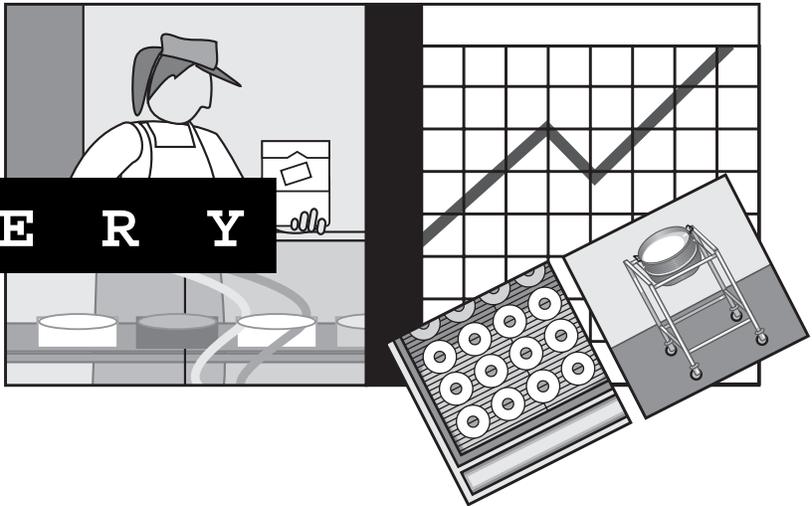
- If a turntable is not used, place a flat piece of stainless steel over the end section of the roller bed preferably with a non-stick coating to allow cases to be turned easily. The metal surface should allow the cases to be pushed onto the roller bed easily.



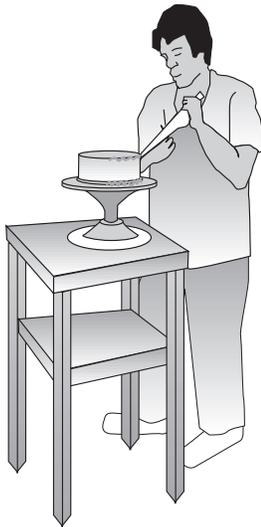
- Use a powered hand jack or scissors-lift to raise the pallet to waist height. This prevents picking up cases with a bent back.
- Work with suppliers to obtain freight with pallet load heights that are within the reach of workers.



B A K E R Y

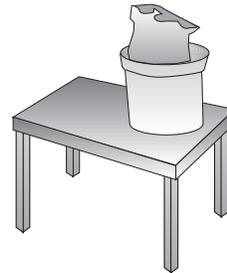


- Position cake-decorating turntables so that the cake is at about elbow height for a more comfortable working position. Adjustable height tables are one solution, but you can also put a riser under the turntable, use turntables with different heights, or put in platforms for shorter people to stand on.

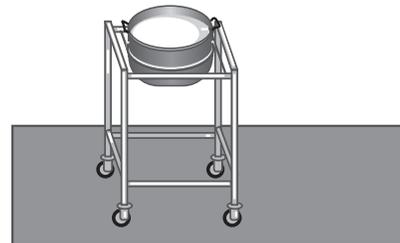


- Use small decorating bags whenever possible to reduce the stress on the worker's hands. The larger the bag, the more force required to squeeze it.
- Have an adequate number of mixing bowls available to reduce the need to transfer icing or batters that are mixed in the store to other containers.
- Use footrests and anti-fatigue mats in areas where workers stand for prolonged periods.

- Make sure that there is toe-clearance under counters and other work surfaces.



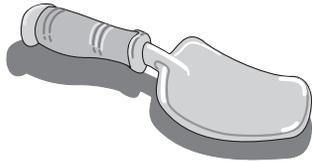
- Put buckets of icing and batter on risers (e.g., small stands or empty buckets) to raise them to the best work zone.
- Use smaller containers of flour, sugar, salt and other supplies to reduce the weights that must be handled.
- When lifting keep large bags and containers of ingredients close to the body to reduce stress on the back.



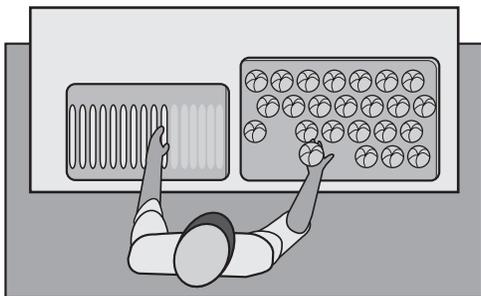
- Use carts or rolling stands to move heavy items like tubs of dough or bags of flour.
- Keep wheels on bakery carts well maintained. Wheels that are in poor repair can be difficult to push and should be removed from service until they can be repaired.

These recommendations are based on information from grocery stores. OSHA recognizes that other bakery operations may be different and that other solutions may be more appropriate for those operations.

- Whenever possible, break up continuous activities such as cake decorating and dough handling with less strenuous tasks during the shift.

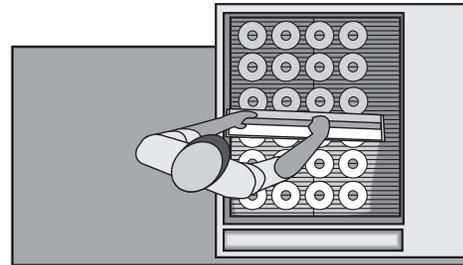


- Use a short-handled scoop to put icing into decorating bags. Shorter handles reduce the stress to the wrist.
- Use spatulas, spoons, and other utensils that fit the workers hand (not too wide or too narrow) and are not slippery.
- Work from the long side of baking pans to reduce reaches when handling dough.

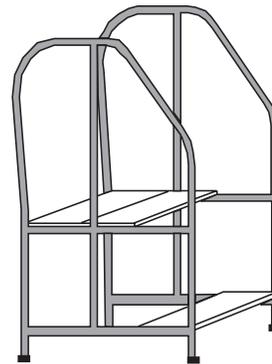


- Use ambidextrous scoops which allow workers to use either hand to dispense dough or batter.
- Use powered mixers whenever possible to mix coloring into icing or purchase colored icing. This reduces the stress to workers' hands and arms from manually mixing colors into icing.
- Ensure that the icing is of correct consistency. Icing that is too thick will be difficult to squeeze through decorating bags. If icing is mixed in the bakery, add liquid to the recipe or warm the icing to obtain the correct consistency. If icing is purchased in buckets, store the buckets at room temperature or warm them before use – cold icing is thicker and hard to squeeze through decorating bags.
- Consider using cake decorating methods that require less use of manual frosting bags. Using an air brush or mechanical dispenser whenever possible can reduce the stress on workers' hands.

- Whenever possible work from the long side of the donut glazing area to reduce reaches and forces on the back. Some glazing stations can be pulled out so that workers can work from the side.



- Use a step stool to reach items on high shelves.



- Look for cases and counter designs that allow the employee to hand customers their selections without high or long reaches.



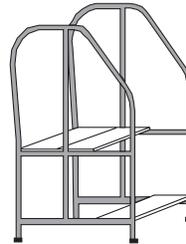
MEAT & DELI



Many of these solutions may also be useful for the seafood and cheese departments.

- Keep wheels on racks well maintained. Wheels that are in poor repair can be difficult to push. Racks with bad wheels should be removed from service until they can be repaired.
- Keep all grinders, cutters and other equipment sharp and in good repair. Dull or improperly working equipment requires more force to operate.
- Provide thermal gloves for use when handling frozen items.
- Avoid continuous cutting or grinding. Whenever possible, break up these tasks with other, less strenuous tasks throughout the shift.
- Work with suppliers to get meat and other supplies in lower weight boxes to reduce the weight manually handled.
- Keep large boxes and heavy items close to the body. This helps to reduce stress on the back.
- Use a food processor to prepare ingredients for stuffing and other items.
- Arrange the wrapping station so that labels are within easy reach and workers do not have to twist or walk to get to them.
- Remove, round-off, or pad sharp or hard edges with which the worker may come into contact.
- Mount controls of the roller bed close to the wrap station so that workers can reach it easily. If there are two wrap stations, there should be two sets of controls so that neither worker must pull or lug trays down the conveyor.
- Align the roller bed and the wrap station so that employees can slide the trays rather than lift them to the station.

- If overhead storage is necessary, use it for light items such as foam trays.
- Use a step stool to reach items on high shelves.

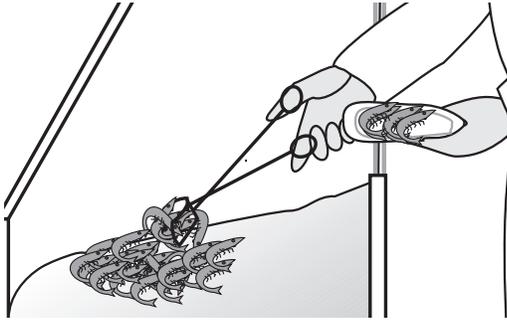


- Position scales so that they can be used in the best work zone. Scales that are too high or too low for a worker can cause employees to work in awkward positions. If possible, make the scale table adjustable so that all workers can work in comfortable postures. Also, position the scale near the lowest part of the counter so that neither the worker nor the customer has to reach over tall deli cases for meat packages.

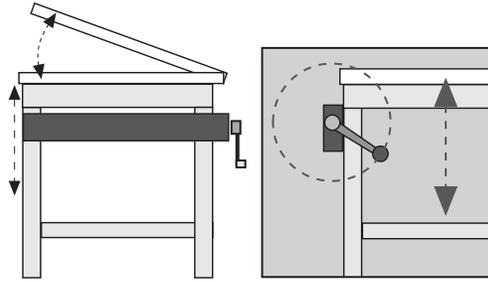


- Provide a small stool for employees to sit on when catching and traying meat from the grinder. Squatting and bending at the waist can lead to back and leg discomfort, especially when grinding for long periods of time.
- Grind meat into a small lug and move it to a comfortable work surface for traying. This prevents the awkward back posture that results from catching and traying the meat immediately as it leaves the grinder.

- When using tongs select tongs with long handles to reach items in the front of the case.



- Whenever possible, incorporate adjustable work surfaces into the department. Examples include cutting tables, scales and deli slicers.



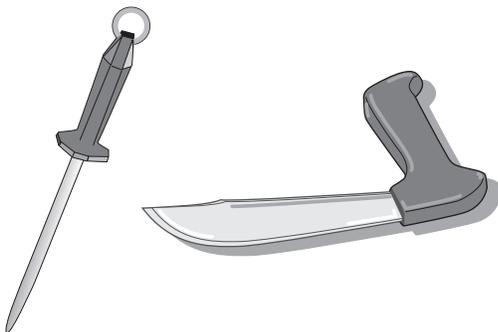
- Whenever possible, work from the long side of trays to reduce reaches and the resultant high stresses on the back.
- Avoid working with the hands/wrists held in a bent or twisted position.



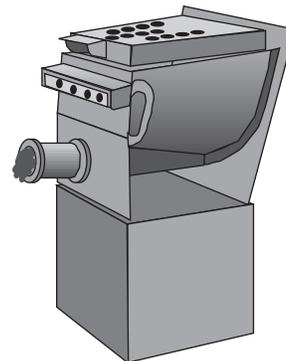
- Look for cases and counters that allow workers to serve customers without excessive reaches.
- Use anti-fatigue mats, footrests, and sit/stand stools where workers are required to stand for long periods of time.



- Keep knives sharp. Workers should be trained in the best knife sharpening methods. Knife sharpening systems should be used regularly, and steels and mousetrap sharpeners should be used to keep knives sharp throughout the shift.

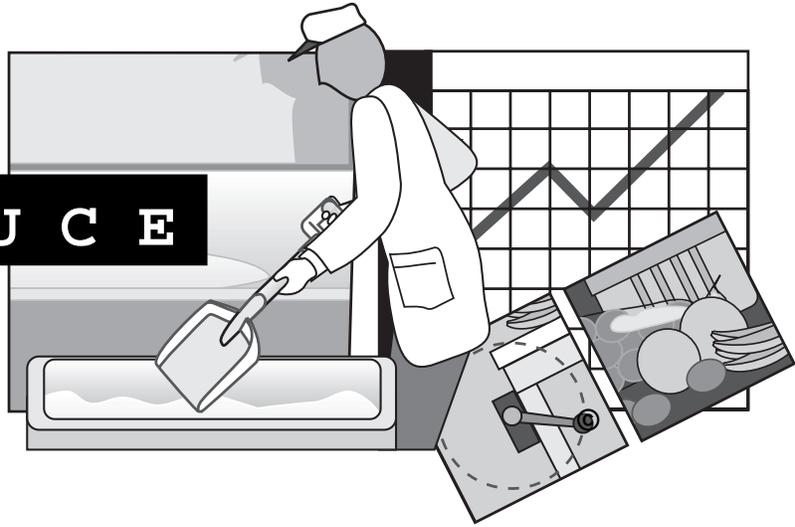


- Look for grinders that do not force the worker to bend over to catch meat or to reach too high to dump meat into the grinder.

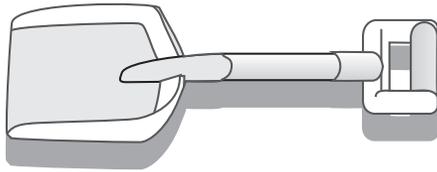


- Try different knives to see if they are more comfortable to use. Some designs work well for specific cutting, trimming, or portioning tasks and should be considered "special purpose" tools.

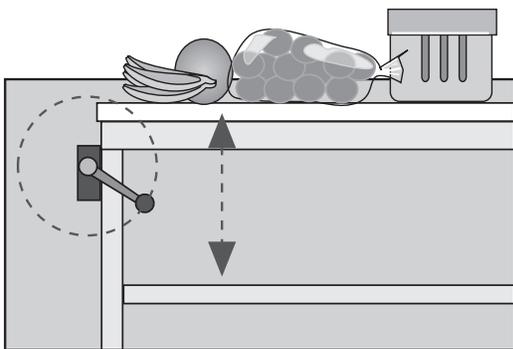
PRODUCE



- Keep manual food processing equipment (knives, slicers, etc.) sharp and in good repair. Equipment that is dull or is not working properly may require excess force to operate.



- Use a lightweight shorthanded plastic shovel for ice. This tool is less stressful to the body than heavy shovels. A small shovel allows the worker to move more ice in less time than a hand scoop.



- Use a portable ice case to transfer ice from the ice machine to the produce displays.

- Position scales and wrap stations so that they can be used in the best work zone. Scales that are too high or too low for a worker can cause employees to work in awkward positions. If possible, make the scale and wrap station tables adjustable so that all workers can work in comfortable postures.

- Keep boxes, melons, bags of potatoes, or other heavy items close to the body when lifting and carrying. This helps to reduce stress on the back.

- Keep heavy items, such as watermelons, in shipping containers and use pallet jacks to move them.

- Consider using refrigeration rather than ice to cool produce in order to eliminate the need to shovel ice.

- Place heavier or fast-moving items on shelves that are in the best work zone.



- Use carts to move heavy items; position carts alongside displays to minimize reaching and carrying.