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Ergonomics Checklist for General Industry

Workstation Adjustments

Texas Department of Insurance, Division of Workers' Compensation
www.txsaftyatwork.com
HS98-135D (09-22)



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INTRODUCTION



ERGONOMIC

Industrial ergonomics is concerned with adapting the requirements of a job to the physical needs of the employees who perform it. When assessing a workplace, ergonomics looks at all the individual tasks involved in performing a job and analyzes how those tasks will affect the health and safety of the worker. **Ergonomic assessments** look at how many times a task must be performed in a row, how long it must be performed, what equipment is used to perform it, and the environment where the task is performed. The goal of these assessments is to reduce risk factors that increase stress-related injuries to muscles, nerves, tendons, joints, cartilage, or the spine. These types of injuries – known as **musculoskeletal disorders (MSDs)** -- can occur instantly or slowly over time due to overuse and repetitive movements.

This publication is divided into four parts. **Part 1** provides general ergonomic information to

help employees work more comfortably and effectively. **Part 2** provides a checklist to help identify workplace ergonomic risk factors. **Part 3** provides a quick reference to ensure workstations are adjusted appropriately. Finally, **Part 4**, provides employees with an individual workstation assessment to evaluate the ergonomic design of their work area.

All workstation adjustments must be based on an understanding that working intensely or for a long time in uncomfortable or unnatural positions can pose risks. Many factors in the work environment determine whether employees work efficiently and in a manner that promotes good health and safety. By considering, acting on, and periodically reevaluating the recommendations described in this publication, it is possible to create a more comfortable, efficient, and safer work environment.

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PART 1:

General Ergonomic Information

Ergonomics in general industry ensures employees have access to the best tools and working techniques for their work environment. Every industry can benefit from employing ergonomic equipment such as well-designed:

- lifting tools and column lifts to help during precision repairs or assembly;
- loading and offloading equipment between storage areas and workspaces; and
- positioning and response touch controls, keyboards, and screens in scanning and data input equipment.

Ergonomically-designed electric lifting columns, electric hydraulic positioners, tool lifts, and positioning equipment can keep employees from having to lift or readjust large or heavy

items manually. Designs that allow for smooth control and a variety of different movements can minimize the amount of motion-related strain experienced by operators through their shifts. All of the ergonomic ideas can be applied and customized to each industry – from aerospace, medicine, warehouses, and factory floors. The goal is to reduce injuries caused by:

- heavy repetitive tasks;
- heavy load carrying and handling tasks; and

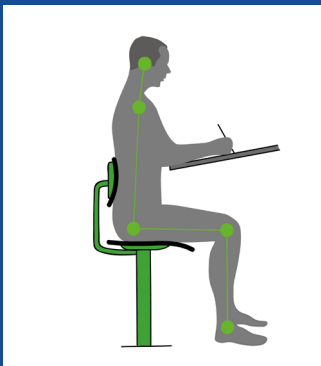
tasks requiring repetitive or sustained awkward poses.

By committing to the ergonomic principles below, employers can reduce the risk of workers developing short-term and long-term injuries that can impact performance, productivity, and the bottom line.

Posture

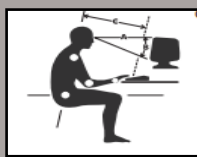
Most people think of sitting as a resting position. However, in most situations the opposite is true. Many seated postures place more strain on the body than standing. Backaches, headaches, stiff and sore muscles, and fatigue are common signs of an unhealthy posture. The ideal posture lessens the strain of sitting and increases freedom of movement in the waist. Whereas poor posture and awkward positions can create workplace injuries.

Ideal Posture



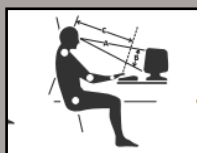
- **places the body at an open angle of 90° or more with the head erect and arms relaxed at the side;**
- **requires that equipment and materials are positioned at the height, angle, and distance to allow the operator to maintain an ideal posture;**
- **permits free movement;**
- **reduces compression of organs and back strain; and**
- **reduces neck and shoulder strain.**

Three Main Factors Affecting the Way We Sit



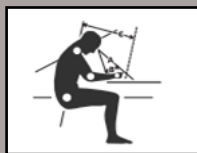
Distance:

the distance required to effectively see tasks .



Angle:

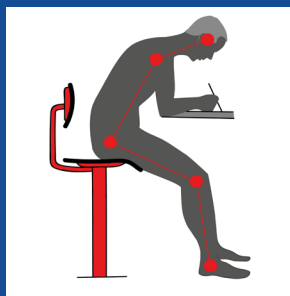
the maximum angle to effectively see tasks without bending the neck.



Reach:

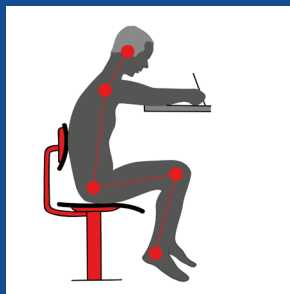
the minimum distance required to effectively reach tasks without altering the position of the upper body.

Awkward Postures



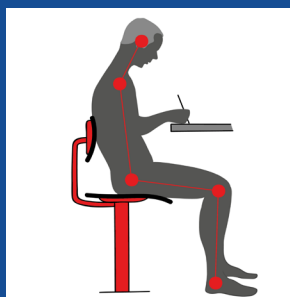
Prolonged Overbending

- strains ligaments and muscles in the back;
- creates lower back pain and fatigue; and
- compresses abdominal organs and hinders their normal functions.



Prolonged Arm Extension:

- strains muscles in the neck and shoulders;
- creates headaches; and
- causes neck and shoulder pain.



Prolonged Head Stooping:

- strains muscles in the neck and shoulders; and
- causes stiffness and pain in the neck and shoulders.

Equipment

Computer monitors and equipment display screens

When selecting a monitor or display screen, choose one with :

- a design that fits the user's tasks;
- a large enough screen to display a sizable amount of information;
- clear and stable images that do not flicker or waver;
- brightness and contrast controls easily accessible to the user;
- adjustable screens that swivel, tilt, and elevate to provide the operator the best viewing angle; and
- a mounting arm that allows movement in all directions, giving the added benefit of freeing up the workspace.

When adjusting the height of the monitor or display screen:

- align the top of the display no higher than the user's eye level;
- adjust the viewing distance, usually 20 to 26 inches or arm's length from the eyes to the screen;
- position the screen to reduce glare; and
- tilt the screen back 10° to 20° to allow eyes to look slightly downward when viewing the middle of the screen.



Keyboards

Choose a detachable keyboard when possible that:

- allows for independent positioning and angle adjustments;
- provides a fitted palm rest to support the heel of the operator's hand and minimizes contact with sharp table or equipment edges;
- tilts 10° to help keep wrists flat;
- keeps the user's upper arms and forearms at a 75° to 125° angle with the hands and forearms in a straight line;
- has a matte-finish surface to reduce reflection and eye strain; and
- adjusts to allow the keyboard or keyboard tray to extend below the worksurface (ranging from 26 to 28 inches).

Document Holders

A document holder should:

- be stable and adjustable in height, distance, and angle;

- provide full support for the document;
- have the flexibility to be used on either side of the monitor; and
- set adjacent to and at the same height as the monitor so the operator can look from one to the other without having to refocus or move the neck or back.

Work Surfaces

Work surfaces need to:

- adjust to accommodate multiple operators and a variety of tasks (usually 23 to 30 inches);
- be large enough to accommodate all the required equipment;
- minimize glare and reflections (matte finishes are recommended);
- have adequate clearance under the work surface to prevent injury to knees, legs, shins, or thighs;
- have a depth for knee space of at least 23.5 inches at knee level and 31.5 inches at toe level; and
- provide room for at least a 27-inch knee width.

Chairs

The first considerations in selecting a chair are the:

- individual's preference;
- task requirements; and
- workplace surroundings.

With these considerations in mind, select a chair that has a:

- five-point base for maximum stability;
- a contoured seat pan that:
 - o allows the lower back to contact the backrest;
 - o supports the full width of the thighs (16 inches fits most people);
 - o provides a 3 to 3.5-inch allowance between the front edge of the seat pan to the bend of the worker's knees; and
 - o offers soft, rounded padding at the front edge of the seat pan to prevent thigh tissue compression, blood flow restriction, and leg pain; seat pans that are too deeply padded can cause tension in hip muscles due to the user sinking too low.



Ergonomic chair features include a five-point base for maximum stability and an adjustable, supportive backrest.



- seat covering material that is porous and breathable;
- a backrest that:
 - o provides an easily adjustable angle and height with a support surface of at least 20 inches high and 13 inches wide;
 - o a lumbar adjustment of 2 inches; and
 - o support to the entire back without interfering with the use of arms during assigned tasks.
- adjustable armrests that:
 - o fit under the work surface to allow the user to remain close to the work while maintaining contact with the backrest; and
 - o provide support for the entire forearm to prevent shrugged shoulders and slumping, which can cause lower back and neck stiffness and pain.
- footrests for workers whose feet do not rest on the floor once the chair height has been properly adjusted are:
 - o large enough to support the soles of both feet;
 - o adjustable in height and incline (but no more than 30°);
 - o easy to move; and
 - o covered with a nonskid material to reduce foot slippage.

- soles of the worker's feet rest completely on the floor or footrest; and
- the back of the knees are slightly higher than the seat to allow free blood flow to the legs and feet.

Tools

When evaluating the ergonomic design of hand tools, start by asking these questions:

- Who will use the tool? (Consider body measurements and proportions.)
- What is the work surface (where will it be used)?
- What are the specific task requirements?
- What is the tool's function?

Look for these ergonomic features when purchasing tools:

- The grip surface is non-slippery.
- The grip surface does not have sharp edges, undercuts, deep ribs, or finger grooves.
- The grip surface is electrically insulated.



When adjusting the chair height ensure the:

- The grip surface is thermally insulated so as not to get hot or cold quickly when working in a hot or cold environment.
- The grip length is 4 to 6 inches.
- The handle is made of wood, or the grip surface is coated with semi-pliable material similar to the rubber used in the soles of sports shoes.
- The handle does not end inside the palm of the hand.
- The angle of the handles is formed so that the work can be done keeping a straight wrist.
- The tool's weight is less than 5 pounds.
- The tool can be used with either hand.



- The tool and accessories are marked or color-coded for easy identification.
- The size of a one-handed tool's handle allows the index finger and thumb to overlap by 3/8-inch when gripping. (For hammers and hammer-like tools, an overlap of 1 inch is acceptable.)
- The grip span on two-handed tools (plier-like tools) should be greater or equal to 2 inches when fully closed and less than or equal to 3.5 inches when fully open.

Environment

The physical aspects of a workplace environment can have a direct impact on the productivity, health, safety, comfort, concentration, job satisfaction, and morale of employees. Some important ergonomic factors in the work environment that deserve consideration include reach, lighting, noise, and radiation.

Reach

The maximum work area is determined by the reach of the operator without leaning forward. Most adults can reach from 22 to 26 inches. The most effective work area is the space under the operator's forearm without extending the arm or leaning forward. Organize a work environment so:

- routine operations are within easy reach;
- the work is directly in front of the employee; and
- it is as close and comfortable to the body as possible.

The work environment should also:

- accommodate the operator;
- allow the operator full range of motion to perform various tasks; and
- provide adequate room for all required equipment and materials.

Lighting

Correct lighting adds to work effectiveness and comfort. Arrange lighting to support the type of work an employee does most often. For example, if most of the work is done sitting in front of the computer or display screen, consider these factors when arranging the lighting:

- Position the equipment or sources of light so that glare or bright reflections on the display are minimized.

- Use blinds, shades, or drapes on windows to control the amount of daylight in the room.
- Locate display screens away from windows or position them at right angles to windows to minimize glare.
- Position the display between the rows of overhead lights to avoid glare.
- Avoid bright light sources in the worker's field of vision.
- Use recessed or indirect lighting to avoid bright spots on the display.
- Minimize glare and avoid eye fatigue by painting surrounding walls and work surfaces with a medium color in a non-reflective finish.
- Screen glare filters reduce glare but are not a substitute for proper lighting since they can contribute to blurring and poor contrast of screen characters.
- Equip overhead lighting with diffusers, cube louvers, or parabolic louvers to reduce glare.



Noise

Noise, within the context of industrial ergonomics, refers to the sound levels in and around the worksite. Equipment noise can be disruptive, annoying, and harmful. Specifically, unwanted sounds can have a negative effect on workplace safety, productivity, and employee hearing. Employers should control or mitigate hazardous noise in the

workplace to prevent injury and improve job quality.

Noise in the workplace can include a range of unwanted sounds from distracting annoyances to continuous high decibel levels that can lead to hearing loss. This noise pollution can impair an employee's ability to concentrate and create a hazardous environment where safety is compromised due to employees' inability to focus and communicate clearly.

An employer should consult with employees to evaluate their needs to reduce the risks caused by workplace noise. A noise audit, or assessment, can alert an employer to specific noise hazards. Sound buffering, insulation, and noise mitigation through the use of personal protective equipment (PPE) can help provide a safe, productive, and comfortable workplace.

Radiation

Industrial ergonomics also examines excessive levels of radiation, specifically, [ionizing radiation](#), [nonionizing radiation](#), and [radiant heat exposure](#).

In occupations where there is exposure to **ionizing radiation**, as in x-raying pipe, time, distance, and shielding are important tools in ensuring worker safety. Danger from radiation increases with the amount of time an employee is exposed to it. Distance, too, is a tool in controlling radiation exposure. Radiation declines the further away a person is from the source. Shielding also is a way to protect against radiation. The greater the



protective mass between a radiation source and the worker, the lower the radiation exposure.

Nonionizing radiation, like heat and light, is also dealt with by shielding workers from the source. Sometimes with nonionizing radiation, limiting exposure times or increasing the distance is not effective. For example, laser radiation cannot be controlled by imposing time limits. An exposure (and the resulting injury) can be faster than the blink of an eye. Increasing the distance from a laser source may require miles before the energy level reaches a point where the exposure would not be harmful. Therefore, shielding is the most effective precaution.

Another physical hazard, **radiant heat exposure** from the sun or in factories such as steel mills, can be controlled by installing reflective shields and by providing protective clothing.

[Radiation from display monitors is negligible](#) and is not considered hazardous. However, it is recommended that operators work at arm's length from the screen and position all workstations at least 4 feet from the sides or backs of other monitors.

Personal Health

Fatigue

These simple steps can reduce operator fatigue:

- Encourage employees to get up and move regularly.
- Design the operator's workload to accommodate reasonable rest pauses.
- Practice good posture.
- Body stretches help prevent operator discomfort and fatigue.
- Use the 20-20-20 rule to reduce eye fatigue: every 20 minutes look 20 feet away from the task or monitor for 20 seconds.
- Job rotation or substitution of a less demanding activity can allow the operator to recover from fatigue.

Vision Care

Anyone may experience eye problems for many reasons, including aging, sleepiness, general fatigue, improper lighting, or untreated vision conditions. Conduct eye examinations for early detection and correction of poor vision.

Employees should discuss the type of work they do with their eye care specialists to ensure the best corrective lenses are prescribed. Knowing the viewing distance from the employee's eyes to a display screen helps determine the focal distance. Holding a piece of string from the bridge of the employee's nose to the screen can easily measure the distance.

As employees age, the eye lens hardens, and focusing up close becomes more difficult. This becomes noticeable about age 35 to 40. Using a display monitor does not bring on this change, but it may bring it to the employee's attention. Display monitor users over 40 should pay particular attention to viewing distance, glare reduction, and adequate lighting. The use of bifocals or trifocals depends on personal preference as well as the kind of on-the-job tasks.

The Center for Disease Control and Prevention reports that [8 million Americans](#) have an uncorrected vision problem. So encourage employees to check their vision as part of a regular health care program.



PART 2:

Ergonomic Risk Factor Checklist

The checklist in this section is a quick way to identify on-the-job risk factors for MSDs. **One checklist should be used for each employee. Each task an employee performs is scored separately. If more than one task is performed, the scores are added together.**

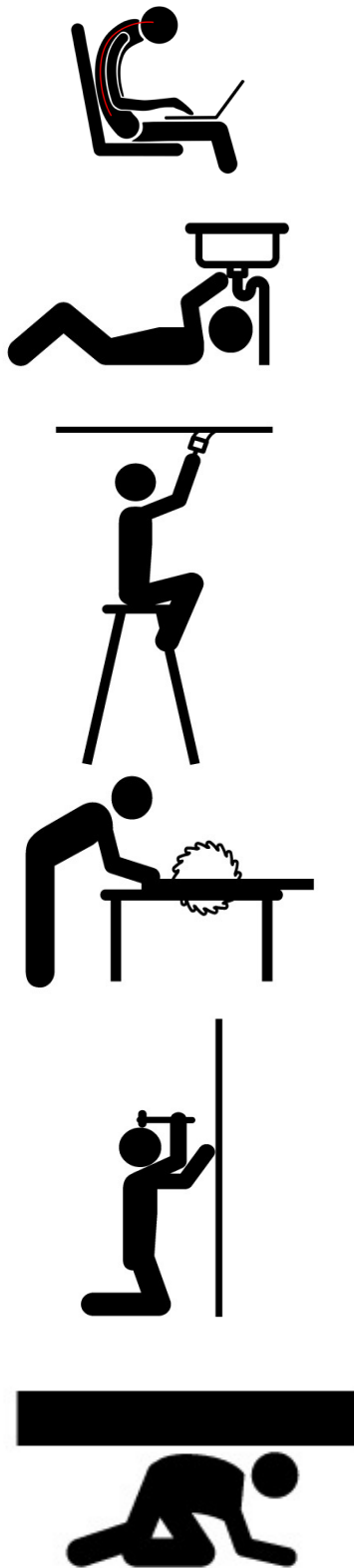
Each risk factor is scored by the length of time (the duration) the employee does the task. In the case of “repetitive motion” (see page 16), the task is scored a 0 for 5 to 59 minutes, 1 for 1 to 4 hours, or 3 for more than 4 hours. However, if the employee performs a repetitive task multiple times during a shift, such as bending and twisting the hand for the first 50 minutes of the shift and again in the last 50 minutes of the shift, the total duration the employee performs the task is 1 hour and 40 minutes, or a score of 1 (not 0 + 0). **For any score of six or more, employers should conduct a job safety analysis to make corrections or modifications for the safety of the employee.**

On the right is a list of “Terms to Know” that corresponds to the numbered questions in the checklist. Review these terms before beginning the checklist to better understand and identify the risk factors that can cause injury.

Terms to Know

- 1. Repetitive** means motions or motion patterns repeated every few seconds. Examples include repetitive twisting or bending of the hand or wrist.
 - a. Motion** is a voluntary muscle exertion to do work with or without a change in posture. For example, performing 10 wrist motions per minute or two shoulder motions per minute.
- 2. Hand force (repetitive force)**
 - a. Power grip** means holding an object that weighs more than 10 pounds (such as a big crowbar).
 - b. Pinching** means holding an object that weighs more than 2 pounds with the tips of the fingers.
- 3. Awkward postures (repetitive or static)** include work that causes a twisted, bent, or pinched neck, elbows, forearms, hands, wrists, or trunk; overhead work where arms are extended above the shoulders; and squatting or kneeling.
 - a. Static load** means the continuous exertion of a body part for more than five minutes such as when an employee works with their hands above their head.
- 4. Using power tools** impart different types of stresses on the body based on the vibration and torque produced. Examples include jackhammers, grinders, and chainsaws.
- 5. Contact stress** results from the repeated sustained (static) contact of a hand, arm, or other body parts with a solid object or hard surface. This may be due to the use of poorly designed tools such as pliers or scissors, resting an arm or palm on the edge of the desk, or repeatedly using a hand as a hammer.

Illustrations of awkward postures



6. Unsupported fixed postures often occur in jobs that are highly repetitive or require intense concentration that may cause the worker to maintain the same posture for extended periods without support. Examples include stationary standing, or feet dangling from a chair without support.

7. Environment in the workplace can include cold temperatures, poor lighting, and glare. Cold temperatures can impair muscle and tendon function. Glare occurs when light is reflected off of a screen or object. It also occurs when light shines directly in the eyes making it difficult to see. Continuous whole-body vibration from using jackhammers, operating equipment, or driving, fatigues muscle groups and can result in microfractures of the spine.

8. No employee control over the work pace-The inability to affect the rate at which work is accomplished, for example, in a machine-paced or assembly line job, creates a higher risk for MSDs.

9. High visibility demands-Concentration and visual focus on rapidly moving or complex displays cause fatigue and neck muscle tension. Examples include using a microscope for electronics assembly or repetitive inspection tasks.

10. Push/pull, lift/lower, carry 10+ feet-Determine the weight of the object, if possible, that will be pushed, pulled, lifted, lowered, or carried more than 10 feet. Push and pull forces are difficult to determine without a strain gauge but can be estimated by asking employees to rate the difficulty of the task. "Easy" is similar to pushing an empty shopping cart. "Moderate" is like pushing a full shopping cart. "Heavy" is like pushing a car.



General Risk Factor Checklist

Job _____ Department _____ Date _____

Time _____ Employee _____

Analyst _____

Risk Factor	Duration (amount of time a worker is exposed to a risk factor during a shift)			Cause of Risk Factor or Comments	Sub Total
	5 to 59 Minutes	1 to 4 Hours	More than 4 hours		
1. Repetitive motion (every few seconds)	0	1	3		
2. Hand force (repetitive force)					
a. Power grip 10+ pounds	1	2	3		
b. Pinch object	1	2	3		
3. Awkward postures (repetitive or static)					
Neck: twist/bend	0	1	2		
Shoulder: overhead work	0	1	2		
Shoulder: extended reach	0	1	2		
Elbow/forearm: twist	0	1	2		
Hand/wrist: bend/twist/pinch	0	1	2		
Trunk: twist/bend	0	1	2		
Knee: squat/kneel	0	1	2		
4. Using power tools	0	1	2		
5. Contact stress/hand hammering	0	1	2		
6. Unsupported fixed postures	1	2	3		

Risk Factor	Duration (amount of time a worker is exposed to a risk factor during a shift)			Cause of Risk Factor or Comments	Sub Total
	5 to 59 Minutes	1 to 4 Hours	More than 4 hours		
7. Environment (cold temperature, poor lighting, light, and glare)	0	1	2		
8. No employee control over the work pace	0	1	2		
9. High visibility demands	0	1	2		
10. Push/pull Easy Moderate Heavy	0 0 1	1 1 2	1 2 3		
Lift/Lower	0 to 6				
Carry 10+ Feet	0 to 6				
Employee Comments:					Total Risk Factor*

*** Jobs with a risk factor score of 6 or more require a job safety analysis.**

PART 3:

Ergonomic Adjustment Checklist

Employees who sit behind a desk or at a workstation for hours at a time are not doomed to a career of neck and back pain or sore wrists and fingers. Proper ergonomic adjustments – including correct chair height, adequate equipment spacing, and good

posture—can keep employees, their joints, and their muscles comfortable at work. This checklist is a guide to ensure employees' workstations are adjusted correctly to create a comfortable and productive work environment.

Work Surface

	1. Height of work surface: Adjust 23 to 30 inches (58.4 to 76.2 cm).
	2. Nonadjustable work surfaces: Table surface height of about 29 inches (73.6 cm) with a keyboard surface height of 27 inches (68.5 cm).
	3. Width of the work surface: 30 inches (76.0 cm).
	4. The thickness of the work surface: 1 inch (2.5 cm).
	5. Knee room height: Minimum of 26.2 inches (66.5 cm) for nonadjustable surfaces and 24 inches (70.0 cm) for adjustable surfaces.
	6. Knee room width: 27 inches (76.2.0 cm) minimum.
	7. Knee room depth: Minimum of 23.5 inches (59.7 cm) at knee level; 31.5 inches (80 cm) at toe level.

Chair

	8. Seats: Easily adjustable swivel chairs on a five-point base.
	9. Seat height: Adjustable 16 to 20.5 inches (40.0 to 52.1 cm).
	10. Seat size: 15 to 17 inches (38.1 to 43.2 cm) deep; 17.7 inches (45.0 cm) to 20 inches (51.0 cm) wide with a "waterfall" front edge.
	11. Seat slope: Adjustable backward slope of 0° to 24°.
	12. Backrest size: 20 inches or higher (50.8 cm); 13 inches wide (33.0 cm).
	13. Backrest height: Adjustable 3 to 6 inches (8.0 to 15.0 cm) above the seat.
	14. Backrest tilt: Adjustable to 30°.
	15. The angle between the backrest and seat: 90° to 105°.
	16. The angle between the seat and lower leg: 60° to 100°.
	17. Footrest needed if the operator cannot keep both feet flat on the floor when chair height is properly adjusted to the work surface.

Entry Devices

	18. Keyboards: Thin, detached from the console with a palm rest.
	19. The angle between the upper arm and forearm to the keyboard is between 75° and 125°; the hands are in a reasonably straight line with the forearm.
	20. Non-keyboard entry devices: Position devices following the same guidelines for keyboards.

Screens

- | | |
|--|---|
| | 21. Readable with no perceptible flicker; brightness control necessary; tilt, swivel, and height adjustments. |
| | 22. Viewing distance: 16 to 22 inches (40.6 to 55.8 cm) for focusing at close range with operators working at arm's length from the screen. |
| | 23. Eyes to screen: Top line of the display is no higher than the user's eyes. |
| | 24. Position the display screen directly in front of the operator. |
| | 25. Adjust the character brightness to achieve maximum clarity of the characters. |
| | 26. Place screens at right angles to windows. |

Glare Control

- | | |
|--|---|
| | 27. Windows with curtains, drapes, or blinds to reduce bright outside light. |
| | 28. Lighting levels at 30 to 50 footcandles (enough light to saturate a one-foot square with one lumen of light) when using a display monitor; 50 to 70 footcandles where documents are read. (Normal office levels are 75 to 160 footcandles.) |
| | 29. Diffusers, cube louvers, or parabolic louvers to reduce overhead-lighting glare. |
| | 30. Work surfaces with an antiglare (matte) finish. |
| | 31. Movable desk or task lights for supplemental lighting. |
| | 32. Locate display monitors between rows of overhead lighting; screen filters or hoods if above are not successful. |

Other

- | | |
|--|--|
| | 33. Position the height, angle, and distance of task equipment and materials to maintain the ideal posture. |
| | 34. Place the document holder at approximately the same distance from the user's eyes as the screen. |
| | 35. Cables and cords: Concealed, covered, or out of the way. |
| | 36. Ventilation: Additional ventilation or air conditioning to compensate for heat generated by more than one equipped workstation in the same room. |
| | 37. Temperature and humidity: Maintain thermal comfort; 30% to 60% relative humidity. |
| | 38. Noise: Acoustical enclosures for printers and other loud equipment. |
| | 39. Training: Operators are trained on how to adjust equipment, chair, workstation height, screen brightness, and seat posture. |

Personal Comfort

- | | |
|--|---|
| | 40. Ensure chair height allows the user to maintain the proper arm and hand position; the chair supports the lower back; feet rest firmly on the floor or a footrest. |
| | 41. Keep forearms and wrists parallel when typing; do not angle forearms upward. |
| | 42. Type with wrists in a natural, straight position. Avoid bending, arching, or angling wrists. |

	43. Use the minimum amount of force needed to push down the keys. Avoid banging on the keys.
	44. Vary tasks during the day to avoid sitting in one position for several hours or performing the same tasks with hands without interruption.
	45. Take periodic breaks and rest the eyes occasionally by focusing on a fixed point in the distance.
	46. Stretch and exercise several times a day.
	47. Be sure the screen is free of fingerprints and dust.
	48. Have eyes examined regularly by a vision care specialist.

PART 4: Individual Assessment

The following is a guide to assess individual workstations and evaluate the effectiveness of ergonomic changes.

Worker's name:		Worker's height:	
Worker's department:		Job title:	
Shift hours:	Hours/ week:	Breaks:	
Number of employees on this same job:			
Describe the task(s) performed at this workstation (in sequence):			
YES	NO	Individual Assessment	
		Does the employee rotate to other jobs or workstations? If so, how often? Describe the other jobs or workstations:	
		Does the employee work overtime? If so, how often? How long?	
		Is overtime voluntary?	
List machines and accessories at the workstation			
Item	Manufacturer	Model	Dimensions
Footrest			
Wrist rest			
Chair			
Computer			
Keyboard			
Desk			
Task light			
Document holder			
Others			

YES	NO	Workstation Features
		Are there sharp edges that press on the worker's: hands? fingers? wrists? forearms? thighs? other?
		Are the following items easily adjustable and in good working condition? seat height? backrest height? backrest tension? footrest? desk height? computer screen height? computer screen tilt? distance from the computer to the operator? keyboard height? keyboard angle? distance from the keyboard to the operator? chair arms? copy stand (document holder)? lighting? other?
YES	NO	Incentive Factors
		Is there a performance system for job evaluations (keystrokes/hour, number of errors, etc.)? If there is an incentive system, how is it set up?
		Is the work pace beyond the worker's control?

YES	NO	Seated Posture <i>Ask the operator to perform their task as they normally would and observe the following:</i>
		Are both feet firmly on the floor?
		Are the knees bent at approximately right angles?
		Are thighs approximately parallel to the floor?
		Is the upper back supported by the back rest?
		Does the lumbar support the lower back?
		Are the upper arms hanging approximately by the sides?
		Are the lower arms approximately parallel with the floor?
		Are the wrists kept approximately straight with an extension no greater than 15°?
		Do the thighs fit comfortably under the desk?
		Is the neck bent forward to look at the task?
		Is the neck bent forward or down to look at documents?
		Does the worker lean forward from the waist while performing the task?
		Is the operator hunched over the work?
YES	NO	Training and Education
		Is the operator knowledgeable in these ergonomic principles: workstation "fit"? appropriate use of workstation accessories? importance of workstation flexibility? proper body posture from head to toe? body mechanics? proper work practices? rest breaks? reduction of glare? screen contrast and brightness adjustment? management support of ergonomic controls? other appropriate controls to abate ergonomic hazards?

For more information on ergonomics, stream any of the Texas Department of Insurance, Division of Worker's Compensation workplace safety [videos](#) or download these free publications:

- Ergonomics Checklist for Office Workers ([English](#) / [Spanish](#))
- Ergonomics for the Food Services Industry Fact Sheet ([English](#) / [Spanish](#))
- Ergonomics for General Industry Workplace Program ([English](#) / [Spanish](#))
- Ergonomics Solutions: Baggage Handling ([English](#) / [Spanish](#))
- Ergonomics Take 5 for Safety ([English](#) / [Spanish](#))
- Manual Material Handling - An Ergonomic Approach ([English](#) / [Spanish](#))



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