



Sewing and Related Procedures Ergonomics



<< Ergonomics

[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

- **Sewing Stations**
 - Design
 - Stitching
- Fine work
- Scissor Work
- Material Handling
- Additional References

Workers involved in sewing activities, such as manufacturing garments, shoes, and airplane or car upholstery, may be at risk of developing [musculoskeletal disorders](#) (MSDs). Sewing-related injuries have been documented in the areas of sewing stations, performing fine work or scissor work, and material handling, among others. This eTool* provides example ergonomics solutions specific to sewing. Select [Ergonomics](#) for general solutions.

Sewing Station Design

Stitching

Fine Work

Scissor Work

Material Handling



*eTools are web-based products that provide guidance information for developing a comprehensive safety and health program. They include recommendations for good industry practice that often go beyond specific OSHA mandates. As indicated in the [disclaimer](#), eTools do not create new OSHA requirements.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

[Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

[eTool Home](#)

[Sewing Stations](#)

[Design](#)

[Stitching](#)

[Fine work](#)

[Scissor Work](#)

[Material](#)

[Handling](#)

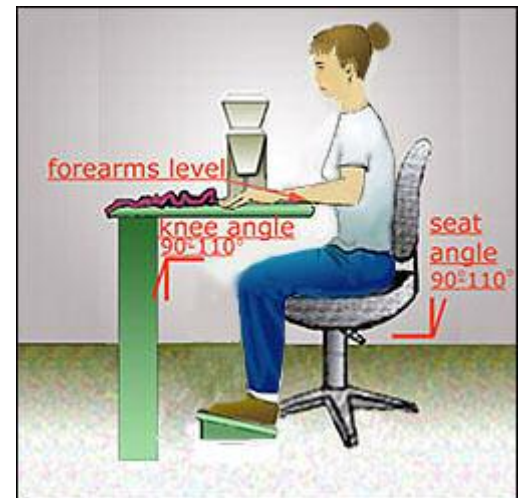
[Additional](#)

[References](#)

Sewing Station Design

Employees encounter several risk factors at sewing workstations, such as awkward arm, neck, trunk, and leg postures. These postures are influenced by the size of the worker and the design of the workstation. This section explains potential hazards encountered at the workstation and a general description of a proper workstation design.

- [Chair](#)
- [Table](#)
- [Treadle/Pedal](#)



Chair

Potential Hazards:

- Workers often maintain awkward shoulder, elbow, and wrist postures (Fig. 1) while sewing because of improper chair height or position.
- Employees must sit or stand for long periods in the same position, resulting in soreness of the back and neck, and/or buttocks, and reduced circulation to the legs.



Fig. 1
Awkward postures.

Possible Solutions:

Use easily adjustable chairs (Fig. 2) to minimize awkward postures, and provide training on how to properly use them.

- Chairs should have:
 - easily adjustable height, seat tilt, and backrest position;

- padded back rest with rounded edges that supports worker's lower back;
- no wheels, or wheels that lock;
- a gently sloped or "waterfall" front edge to help prevent the chair's edge from pressing into the back of the legs; and
- a cushioned/contoured seat, which distributes the worker's weight so no body part gets all the pressure.

To choose a proper chair, consider the amount of movement the task requires, and the size of the worker. For tasks that require a lot of twisting, Fig. 2 is desirable.



Fig. 2
Padded chair with rounded, waterfall edge. Narrow back rest is ideal for twisting jobs.

- Chairs should be placed at an appropriate distance from the workstation, so workers can perform tasks without pulling their elbows away from the body (Fig. 3).
- Motor placement should not interfere with proper chair distance.

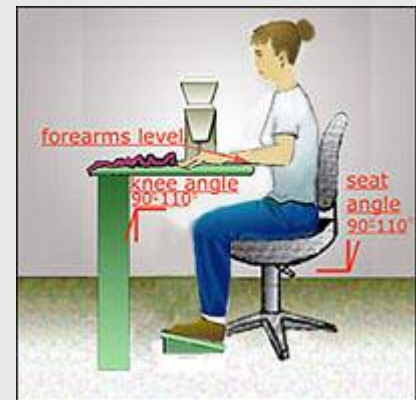


Fig. 3
Properly placed chair.

- Chair height is correct when the work surface is at elbow height. Ideally, in this posture, the entire sole of the foot should rest on the floor, and the back of the knee should be slightly higher than the seat of the chair (Fig. 4). (This illustrates the importance of also having an adjustable table.) The seat may be slightly lower when the worker uses a treadle or pedal.



Fig. 4
Proper chair height.

- Provide sit/stand workstations, which encourage changing posture (Figs. 5 & 5a).



**Figs. 5 & 5a
Sit/stand stool.**

- Provide anti-fatigue mats (Fig. 6) for workers who are standing for prolonged periods. Anti-fatigue mats promote better circulation and reduce fatigue in the lower extremities.



**Fig. 6
Anti-fatigue mat.**

- Schedule frequent, short breaks to stretch and/or change position.
- Provide training on importance of breaks to help reduce injuries.

Table



Potential Hazards:

- Workers maintain awkward shoulder, elbow, and wrist postures while sewing because of improper table height (Fig. 1).



**Fig. 1
Table too high, causing worker's
left elbow to be raised.**

- Employees resting forearms or wrists on sharp edges may cut off blood circulation, pinch nerves, and cause injury to the arms or hands (Fig. 2).



**Fig. 2
Employee leaning on sharp
edges.**

Possible Solutions:

- Provide both height- and tilt-adjustable tables (Fig. 3), which can help employees access their work without using awkward postures.

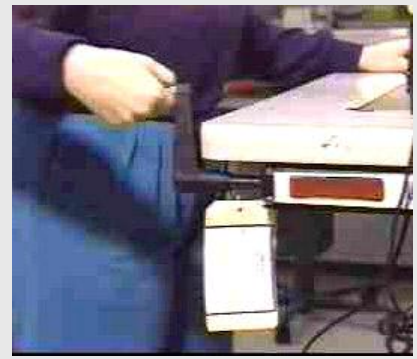


Fig. 3
Height-adjustable table.

- Tables should be adjusted so the work is at elbow height and wrists are kept straight (Fig 4). If the table is too low, workers will have to hunch forward, putting strain on the back, neck, and shoulders. If a table is too high, workers will have to raise their shoulders to get their arms high enough to work. This posture tires the neck, shoulder, and upper back muscles and may result in muscle pain.



Fig. 4
Tables should be at elbow height.

- For sit-down work, the table should also be high enough to allow room underneath for the worker's legs (Fig. 5). The table top should not press on the worker's thighs. Workers who use a treadle need more room than those who don't so they can move their legs more easily.



Fig. 5
Table should allow room for worker's legs.

- Tables may be tilted slightly toward workers, to enable them to see the work more easily and to reduce awkward wrist postures (Fig. 6).
- When sewing heavy fabric, the table may be tilted away from the worker, which may help pull the fabric through the machine and lessen manual force applied by the worker.



Fig. 6
Tilting the table may reduce stress on the worker.

- Edges of work surfaces should be padded or rounded, so workers can rest their arms against

them (Fig. 7).



Fig. 7
Table edges should be padded or rounded.

Treadle/Pedal



Potential Hazards:

- Employees operating a treadle for prolonged periods must maintain awkward and unbalanced posture (Fig. 1).
- Employees required to apply a constant treadle force must maintain static lower extremity postures.
- Workers may also maintain poor posture if treadle is too close or too far away (Fig. 2).

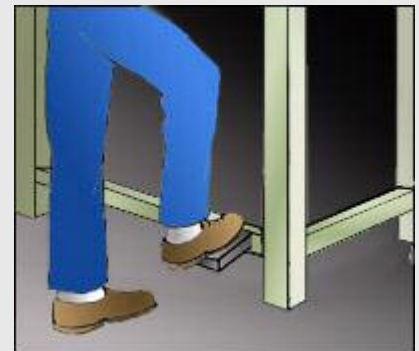


Fig. 1
Poorly-designed treadle causes the worker to use awkward posture.



Fig. 2
Treadle too close.

Possible Solutions:

- Design treadle to require less force (Fig. 3), allowing the use of a sit/stand workstation.
- When feasible, use hip switches or redesigned foot treadles to eliminate the need to apply constant standing pressure.



Fig. 3
Treadle that eliminates awkward leg posture and requires minimal force to operate, especially while standing.

- Provide adjustable treadle so the worker can place it in a comfortable position and get as close to the table as possible (Fig. 4).



Fig. 4
Place treadle so employee
can get close to table.

- Use job/task rotation through tasks that do not require constant leg pressure and awkward leg posture.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

 [Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210



Sewing and Related Procedures Ergonomics



eTool Home

Sewing Stations

■ Design

■ **Stitching**

■ Fine work

■ Scissor Work

■ Material Handling

■ Additional References

[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

Stitching

Stitching involves taking cut material, placing it on the sewing mount, then running it through a sewing machine. This operation may require pinch grips and awkward arm, neck, and trunk postures. Force may also be required to push fabric through the machine. Some of the common risks and possible solutions associated with stitching are listed below.

- [Moving Material to/from Workstation](#)
- [Setting Up Material](#)
- [Manipulating Material](#)
- [Stitching Material](#)



Moving Material to/from Workstation



Potential Hazards:

- Workers reach overhead (Figs. 1 & 2), to the side (Fig. 3), behind, or down into tubs to pick up or place fabric. This action can cause stress on the arms, neck, shoulders, and back.



Fig. 1
Reaching overhead to pick up fabric can cause stress on the arms, neck, and shoulders.



Fig. 2
Reaching overhead to place fabric.



Fig. 3
Reaching to the side to place fabric.

- Workers bend/twist to pick up fabric (Fig. 4), which can hurt a worker's back and shoulders.



Fig. 4
Twisting to pick up fabric.

Possible Solutions:

- Minimize overhead reach by:
 - Lowering the rack (Fig. 5); or
 - Placing station on platform or using height-adjustable portable clothing racks or tables.
- Minimize reaches to the side or behind associated with picking up new product or placing completed fabric by:
 - placing fabric/bins closer to the worker (Fig. 6);
 - placing fabric/bins at table height;
 - using height-adjustable fabric containers;
 - adding an extension to work table; or
 - using an automated or conveyor system that transports the fabric directly to and from the worker.



Fig. 5
Lowering the clothing rack can minimize overhead reach.



Fig. 6
Minimize reach by placing material closer to the worker.

- Use swivel chairs (Fig. 7), which allow workers to turn to get bundles and pieces, rather than twisting to reach to the side or behind. Swiveling

can also make it easier for workers to sit down and get up from the workstation.

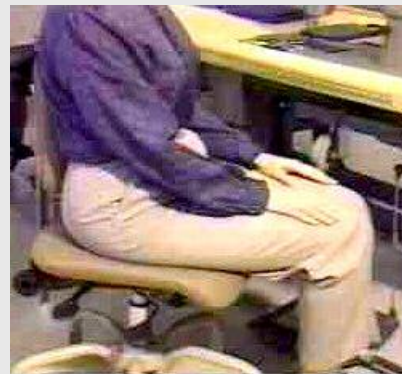


Fig. 7
Swivel chairs allow workers to maintain good back posture.

Setting Up Material



Potential Hazard:

- When setting up material for stitching, workers may have to flex or bend their necks to view the position of the fabric.

Possible Solutions:

- Use automatic feeding and set up, which eliminates the operator using awkward postures.
- Provide proper lighting:
 - Use adjustable task lighting to make it easier for the worker to see product during set up (Fig. 1).
 - Ensure bulbs are replaced frequently so they are functional at all times.
 - Provide properly positioned general overhead lighting.



Fig. 1
Adjustable task lighting.

Manipulating Material



Potential Hazard:

- While manipulating fabric, employees repeatedly use a forceful pinch grip (Fig. 1) between the thumb and index finger.



Fig. 1
Pinch grip.

Possible Solutions:

- Use friction-increasing aids (Fig. 2) on fingers to reduce amount of force exerted in the pinch grip.
- Analyze tasks to determine force requirement and use job/task rotation through tasks not requiring pinch grip.

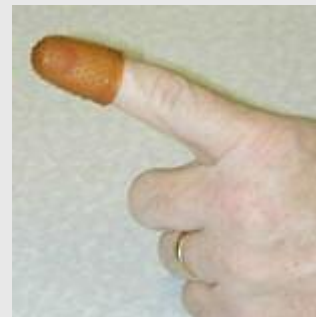


Fig. 2
Friction-increasing aid.

Stitching Material

Potential Hazard:

- Employees push fabric through the sewing machine, which may require extending arms, bending at the waist, and applying force (Fig. 1).



Fig. 1
Awkward posture causing ergonomic stress to arms, shoulders, and back.

Possible Solutions:

- Use height adjustable tables (Fig. 2), which, when properly adjusted, may reduce arm extension and bending at the waist.
- Allow the machine to pull the fabric through rather than having the operator push the fabric.
- Reduce the distance between the operator and the machine.



Fig. 2
Height-adjustable table.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

 [Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

■ eTool Home

■ Sewing Stations

■ Design

■ Stitching

■ Fine work

■ Scissor Work

■ Material Handling

■ Additional References

Fine Work

Employees often perform fine work or tedious jobs at cutting, sewing, and quality control stations. Many times these jobs have acute visual requirements, coupled with intense wrist, hand, and finger movements. Following are potential risk factors and possible solutions involved in this process.

- [Handling Tools and Fabric](#)
- [Visually Checking Work](#)



Handling Tools and Fabric



Potential Hazards:

- Employees use a pinch grip to hold small scissors between the index finger and thumb. Repeated pinch grip may cause hand or wrist injuries (Fig. 1).
- Holding small scissors between the index finger and thumb also can cause contact stress on the fingers.
- While holding scissors or manipulating fabric, employees often maintain awkward arm, wrist, hand, and finger posture.
- Cutting and manipulating fabric requires the employee to use repeated motions.



Fig. 1
Small scissors.

Possible Solutions:

- Invest in tools designed to promote neutral joint postures and minimize contact stresses (Fig. 2).
- Use electric, pneumatic, or otherwise partially automated tools to reduce force and repetition of pinch grip (Fig. 2).
- Use tools and work practices that encourage workers to avoid using more force and movement than the job requires.



Fig. 2
Ergonomic snippers that spring back without operator force and minimize contact stress.

- Use job rotation through tasks that do not require pinch grips.

Visually Checking Work



Potential Hazards:

- Employees hold their neck, trunk, and arms in an awkward position as they strain to see detail in an object (Fig. 1).
- Insufficient lighting makes it difficult for employees to see their work, and may cause eye fatigue and headache.



Fig. 1
Straining to inspect product.

Possible Solutions:

- At the workstation, adjustable task lighting must shine on the work area to make it easier for the worker to see the product (Fig 2).
- Provide adjustable chairs and training on how to properly use them (Fig 2).
- Provide magnifying glasses at workstations where necessary (Fig 2).



Fig. 2
Example of improved workstation.

- Use height adjustable tables (Fig. 3) and sit/stand stools (Figs. 4 & 4a) to allow employees to adjust their postures.
 - For close work that is hard to see, the table should be adjusted 2 to 4 inches above elbow height. However, working at this height might mean that workers have to work with their elbows raised, which can make their shoulders and forearms uncomfortable. Raised elbows should be supported with padded elbow rests.
- Institute job rotation.



Fig. 3
Height-adjustable table.



**Figs 4 & 4a
Sit/stand stool.**

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

 [Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

eTool Home

Sewing Stations

■ Design

■ Stitching

■ Fine work

■ Scissor Work

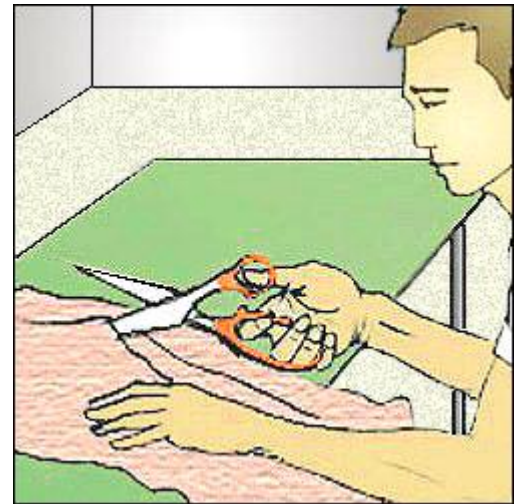
■ Material Handling

■ Additional References

Scissor Work

Employees working at manual scissor stations often have repeated exposure to awkward wrist postures, repeated grip force, and contact stress to the hands and fingers. This task may also require the employee to bend over a table and reach with arms fully extended to cut the full length of the fabric. Scissor work may also include tedious or small range hand motions during finishing or quality control tasks. Following are some possible risk factors involved in this process, and possible solutions.

- [Hand Postures](#)
- [Arm and Back Posture](#)
- [Repetition](#)



Hand Postures



Potential Hazard:

- Holding the wrists in an awkward position while cutting with scissors can cause injury to the wrist.

Possible Solutions:

- Invest in tools designed to promote neutral joint postures (Fig 1).
- Use electric, pneumatic, or otherwise partially automated tools.
- Reduce the amount of force needed to operate tools by:
 - Keeping tools well maintained (i.e., oiled and cleaned), and
 - Instituting a tool sharpening program.
- Institute job rotation through tasks that do not require cutting with scissors.



Fig. 1
Shears designed to promote neutral joint postures.

Arm and Back Posture



Potential Hazards:

- While cutting material, employees often bend over a table, which may cause low back injuries

(Fig 1).

- Employees must extend their arms to cut through a complete piece of fabric (Fig 1).



Fig. 1
Extended reach and bending over table causes ergonomic stress on back, shoulders, and arms.

Possible Solutions:

- Use shorter-width tables so workers do not have to bend and reach so far (Fig 2).
- Provide height- and tilt-adjustable tables; tables should be set at elbow height.
- Feed fabric to the worker rather than making the worker reach for the fabric.
- Use electric, pneumatic, or otherwise partially automated tools (Fig 3).
- Institute job rotation through tasks that do not require bending at the waist and cutting.



Fig. 2
Using automated tools, shorter width tables and height-adjustable tables can minimize injuries.

Repetition



Potential Hazard:

- Cutting often requires employees to use repeated wrist motion, grip force, and small range hand motions.

Possible Solutions:

- Reduce the amount of force needed to operate tools by:
 - Keeping tools well maintained (i.e., oiled and cleaned), and
 - Instituting a tool sharpening program.
- Invest in tools designed to promote neutral joint postures.
- Use electric, pneumatic, or otherwise partially automated tools (Fig 1).



Fig. 1
Partially automated air shears require less operator force.

- Institute job rotation through tasks that do not require cutting with scissors.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

 [Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

■ eTool Home

■ Sewing Stations

■ Design

■ Stitching

■ Fine work

■ Scissor Work

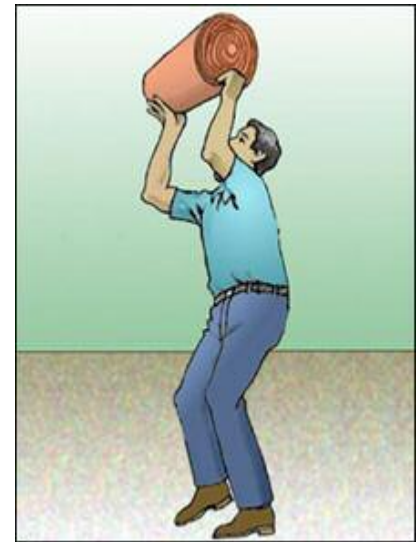
■ Material Handling

■ Additional References

Material Handling

Employees may sometimes have to move large rolls of uncut fabric or large bundles of cut fabric from delivery, or between stations. Some of the risks identified with this operation, and possible solutions, are listed below.

- [Moving Bulk Fabric and Materials](#)
- [Moving Cut Fabric](#)



Moving Bulk Fabric and Materials



Potential Hazards:

- When moving bulk materials, employees may have to lift heavy items and lift with awkward postures, which may result in back and shoulder injuries (Fig. 1).
- Lifting objects with arms fully extended or lifting from floor level or above shoulder level may cause injury to the back, shoulders, and arms (Fig. 1).
- Repeated torso twisting while lifting may also cause low back injuries.



Fig. 1
Lifting from floor level and with awkward postures.

Possible Solutions:

- Design stations to allow most lifts at waist level.
 - Use spring-leveling carts and elevating tables (Fig 2).
- Use mechanical lifts, ceiling tracks or carts to

transport the fabric to reduce the risk of injury to the employee.

- Use rollers, which may reduce the need to hold the load while reorienting it, and will reduce force needed to move the load.
- Have fabric rolls delivered in smaller, easier-to-move rolls.
- Remove any barriers that prevent bringing the load closer to the body.
- Train employees to use proper lifting techniques.



Fig. 2
Design stations to allow most lifts at waist level.

Moving Cut Fabric



Potential Hazard:

- Employees repeatedly bend at the waist and reach into transportation tubs to load or retrieve cut fabric, causing stress on the back and arms (Fig. 1).



Fig. 1
Reaching into cart.

- Employees repeatedly bend to lift bins or bundles of fabric (Fig. 2).



© Earl Dotter

Fig. 2
Bending to lift bin.

- Employees lift bins or bundles over chest height, which may cause injury to the shoulders and back (Fig 3).



© Earl Dotter

Fig. 3

Lifting over chest height.

- Force applied while pushing or pulling carts containing fabric pieces or scraps may cause injury to the arms and back (Fig. 4).
- Thread and scraps of material may clog the wheels, causing the worker to apply more force when pushing or pulling carts.



Fig. 4

Pushing carts.

Possible Solutions:

- Use height-adjustable carts to reduce the need to bend or reach into the carts (Fig 5).



Fig. 5

Height-adjustable cart.

- Design stations to allow most lifts at waist level (Fig 6).
- Use bins with good handles to make lifting easier (Fig 6).



Fig. 6

Use bins with good handles and

design stations to allow lifts at waist level.

- Remove any barriers that prevent bringing the load closer to the body.
- Train employees to use proper lifting techniques.
- Use force-reducing castors, wheels, and carts.
- Institute a cart/wheel maintenance program. Well maintained carts require less force to move.
- Emphasize good housekeeping, which keeps debris from building up and blocking moving carts.



Fig. 7
Force-reducing wheel.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

 [Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

Occupational Safety & Health Administration
200 Constitution Avenue, NW
Washington, DC 20210



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

[eTool Home](#)

[Sewing Stations](#)

■ [Design](#)

■ [Stitching](#)

■ [Fine work](#)

■ [Scissor Work](#)

■ [Material](#)

[Handling](#)

■ [Additional](#)

[References](#)

Additional References

- [Stop the Pain! A Workers' Guide to Job Design.](#) Union of Needletrades, Industrial and Textile Employees (UNITE) (1995).
- [A Stitch in Time ... The Supervisor's Guide to Ergonomics.](#) Georgia Tech (1991).
- [Dealing with Work-related Musculoskeletal Disorders in the Ontario Clothing Industry.](#) (.pdf) UNITE Canada, Institute for Work & Health and the Occupational Health Clinics for Ontario Workers (2000, November 3), 1.04 MB PDF, 137 pages.
- [Ergonomic Challenges in Conventional and Advanced Apparel Manufacturing.](#) Georgia Tech (1992, September). Final Report of ergonomics study of three apparel manufacturing plants.
- [Ergonomics - Human Factors.](#) Canadian Centre for Occupational Health & Safety.
- [Ergonomically Correct Sewing Station.](#) Stacy Ringhand, Wright State University.

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

[Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)



Sewing and Related Procedures Ergonomics



[Viewing / Printing Instructions](#)

[Additional References](#)

[Credits](#)

[Disclaimer](#)

■ [eTool Home](#)

■ [Sewing Stations](#)

■ [Design](#)

■ [Stitching](#)

■ [Fine work](#)

■ [Scissor Work](#)

■ [Material Handling](#)

■ [Additional References](#)

Credits

THANKS TO OUR CONTRIBUTORS

Primary Authors:

- Brett Besser, OSHA Salt Lake Technical Center, Directorate of Science, Technology and Medicine, Salt Lake City, UT: Ergonomics Coordinator
- Bob Curtis, OSHA Salt Lake Technical Center, Directorate of Science, Technology and Medicine; Salt Lake City, UT: Editor
- Edward Zimowski, OSHA Salt Lake Technical Center, Directorate of Science, Technology and Medicine; Salt Lake City, UT: Technical Lead
- Rachel Michael, Ergo Web: Technical Writer

Support Staff:

- Rachelle Cottle, Salt Lake City, UT: Project Lead, HTML Support, Technical Writer
- Christie Stewart, Greg Overton; Salt Lake City, UT: Graphics

Special thanks to the following for providing graphics:

- Cramer, Inc.
- Earl Dotter, earldotter@erols.com
- Georgia Tech, Safety and Health Consultation Program
- Sunalex, Ltd.

Special thanks to the following for providing review:

- Eric Frumin, Union of Needletrades, Industrial and Textile Employees (UNITE)
- Wendy Johnson, OSHA OPA; Washington, DC

[Home](#) | [Additional References](#) | [Viewing/Printing Instructions](#) | [Credits](#)
[Sewing Station Design](#) | [Stitching](#) | [Fine Work](#) | [Scissor Work](#) | [Material Handling](#)

[Back to Top](#)

www.osha.gov

www.dol.gov

[Contact Us](#) | [Freedom of Information Act](#) | [Customer Survey](#)
[Privacy and Security Statement](#) | [Disclaimers](#)

This eTool is not a new standard or regulation, and creates no new legal obligations. The eTool is advisory in nature, informational in content, and is intended to assist employers in providing a safe and healthful workplace through effective prevention programs adapted to the needs of each place of employment.

The Occupational Safety and Health Act requires employers to comply with hazard-specific safety and health standards. In addition, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm under Section 5(a)(1), the General Duty Clause of the Act. Employers can be cited for violating the General Duty Clause if there is a recognized hazard and they do not take steps to prevent or abate the hazard. However, failure to implement these guidelines is not, in itself, a violation of the General Duty Clause. Citations can only be based on standards, regulations, and the General Duty Clause.

The Department of Labor maintains this Web site to enhance public access to the Department's information. This is a service that is continually under development. We will make every effort to keep this site current and to correct errors brought to our attention.

The documents on this site contain hypertext pointers to information created and maintained by other public and private organizations. Please be aware that we do not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of pointers to particular items in hypertext is not intended to reflect their importance, nor is it intended to endorse any views expressed or products or services offered by the author of the reference or the organization operating the site on which the reference is maintained.

Translations of any materials into language other than English is intended solely as a convenience to the non-English-reading public. We have attempted to provide an accurate translation of the original material in English, but due to the difficulties of translation slight differences may exist. References identifying the original document in English are available in most non-English documents.

A red, rounded rectangular button with the text "Close this Window" in white, centered on the page.

Close this Window