

A large, semi-circular graphic resembling a clock face or a gauge, with a needle pointing to the 5-minute mark. The text "5-minute safety talk" is overlaid on the graphic.

**5**-minute  
safety  
talk

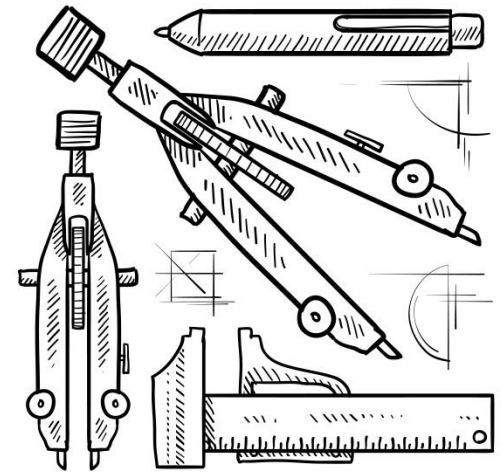
# Ergonomics

For use in conjunction with 5-Minute Safety Talk



# Ergonomics

Ergonomics involves designing and arranging workspaces so people work efficiently and safely. Ergonomics is used to evaluate how you do your work to identify any risk factors that might lead to injury, and then find the best solution to eliminate or manage the hazard. Capabilities and limitations are taken into account to ensure tasks, equipment, information and environment suit you.





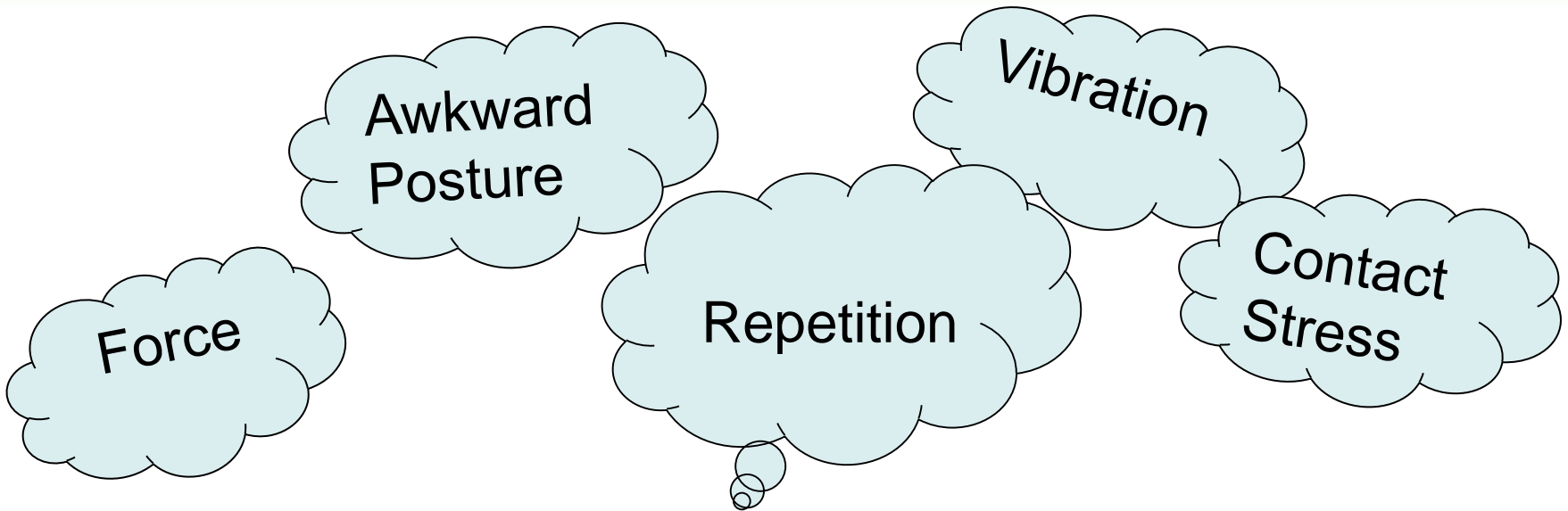
# What are Ergonomic Conditions?

Disorders of the soft tissue – specifically:

- Muscles
- Nerves
- Tendons
- Ligaments
- Joints
- Cartilage
- Blood vessels
- Spinal discs



# Possible Causes





# Recognizing Ergonomic Symptoms

Common ergonomic symptoms include:

- Pain
- Swelling
- Tingling
- Tenderness or numbness
- Sometimes difficulty moving or using the extremity

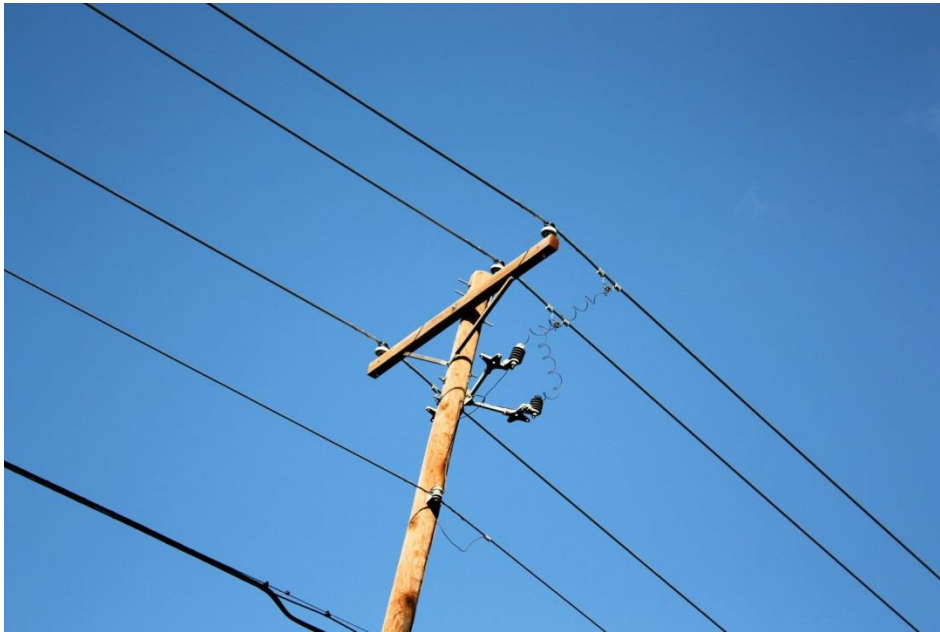


**If you are experiencing any of these symptoms, make sure to see your physician or an occupational physician as soon as possible to determine the cause of your pain.**



# Ergonomic Risk Factors

The main categories of ergonomic risk factors are:



**Environment -**  
Risks found in your  
work environment



# Ergonomic Risk Factors

## Equipment -

Risks associated with the equipment you use



# Ergonomic Risk Factors



Risks caused by work requirements,  
processes or procedures





# Ergonomic Risk Factors



## **Individual –**

Risks that are unique to you as an individual, such as physical characteristics, habits and behavior



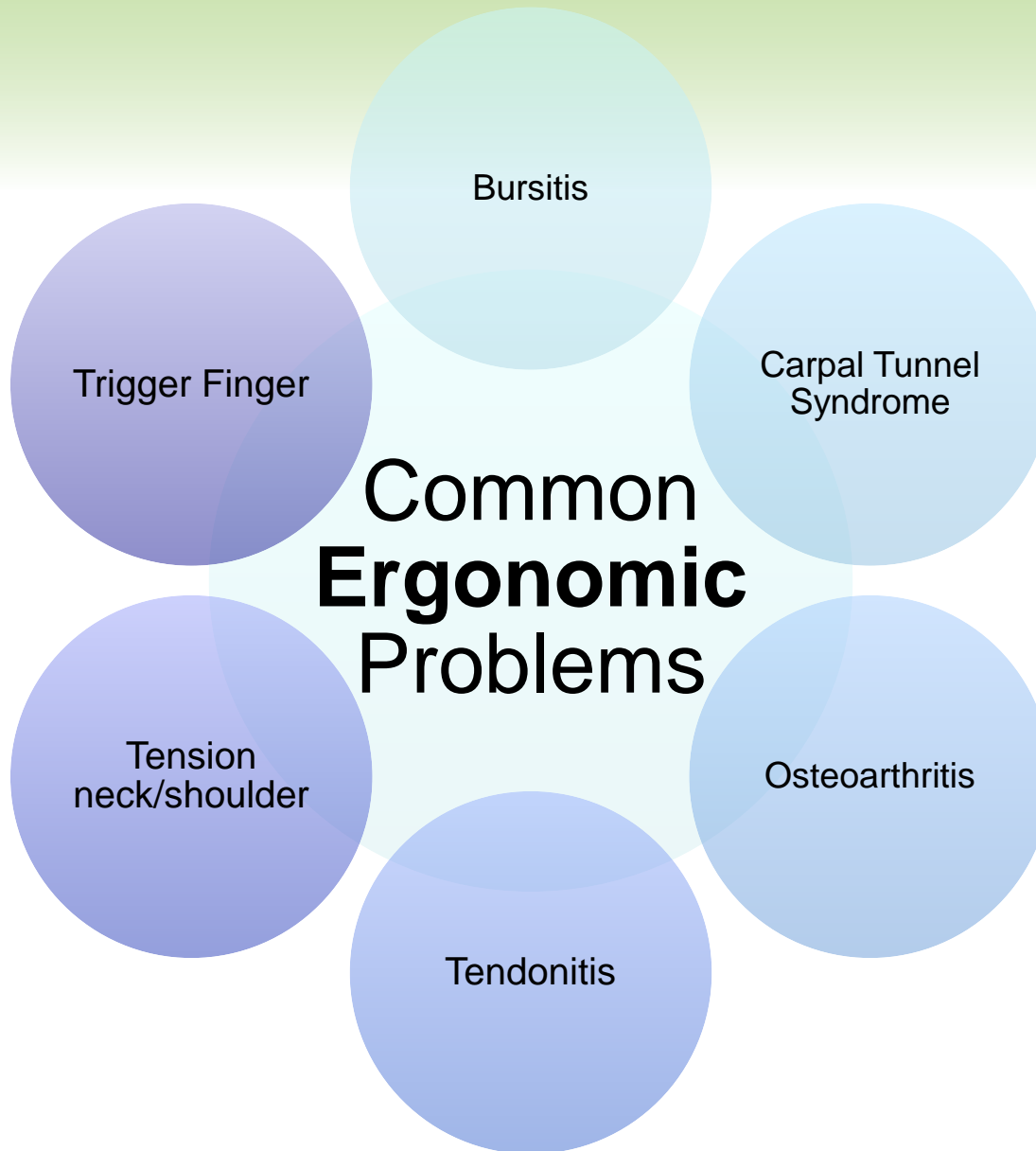
# Repetitive Movement

Non-strenuous or strenuous repetitive movement can cause ergonomic conditions.

Some conditions can be brought on by:

- Sudden increases in your workload
- Introduction of a new process to your work routine
- Use of vibrating tools
- Maintaining a rigid posture







# Ergonomic Solutions

Help minimize & possibly eliminate ergonomic risk factors:

- ✓ Talk with your supervisor about what to do if you are experiencing pain in the soft tissues
- ✓ Talk with ergonomic experts to identify what is causing your pain and to find a solution
- ✓ Reduce the pace of work, alternating repetitive tasks with non-repetitive tasks at regular intervals
- ✓ Increase the number of breaks from repetitive work

Taking appropriate steps means you will experience fewer injuries and fewer lost work days.



# Posters

Log in at [nsc.org/members](http://nsc.org/members)

## BACK 2 BASICS

A common sense approach to avoiding back injuries

**42%** of reported musculoskeletal disorders from workplace injuries involved the back and neck, and about seven days to recover.\*

**1 Stay fit**

**Tone your muscles.** Exercise your abdominal and leg muscles. The stronger they are, the less your back has to work.

**Loose extra pounds.** Excess weight can exaggerate the curve of the spine and strain the back.

**Stand up straight.** Try to keep your ears, shoulders and hips in a straight line.

**2 Lift right**

**Get help.** If the object is too heavy to lift by yourself, ask a coworker for assistance.

**Keep your back straight!** If you have to squat. Also, bend at the knees and keep the load close to you.

**Avoid twisting.** To lift and turn, point a foot in the direction you want to go before lifting.

\*SOURCE: <http://www.nsc.org/research>

## AVOID ERGONOMIC INJURIES

**Work in moderation**  
What to do to avoid ergonomic injuries:

**Work in a comfortable position**

**See the Signs**

- Tenderness
- Loss of grip strength
- Numbness or tingling
- Pain or swelling

**Lift, lower, push, pull, reach or stretch in moderation**

**Change the way you sit or stand frequently**

**Avoid repetitive motions**

## WHAT YOU SEE COULD HURT YOU

**THE CAUSES OF EYE STRAIN:**

- COMPUTER MONITORS** that are hard to read
- STARING** at a close, fixed object
- GLARE** from lighting fixtures without shades
- UNCORRECTED** vision problems
- LACK OF COLOR VARIETY** in a worker's surroundings

**THE REMEDIES:**

- ANGLE MONITORS** away from lights and windows
- PLACE FILTERS** on overhead lighting to diffuse the light
- DIM OVERHEAD LIGHTING** if it is too bright
- LOOK AWAY** from your computer monitor every few minutes
- ADJUST** the brightness and contrast of your computer monitors

**To Avoid Computer Vision Syndrome**

**PLACE YOUR COMPUTER SCREEN ABOUT 4 OR 5 INCHES BELOW EYE LEVEL AND 20 TO 28 INCHES AWAY.**

**20-28 INCHES**

For more information on this and other safety topics, please log on to the member-exclusive website at [nsc.org](http://nsc.org)



# Checklist



## Safety check: Ergonomics

### Lift safely

Improper lifting technique can lead to strains, dislocations and even muscle tears, with most injuries occurring in the back. Whether you're organizing your inventory or decorating your home, make sure you're practicing these safe-lifting guidelines.

- Stretch beforehand so your body gets warmed up
- Keep your back straight and bend your knees – remember to never twist or bend your back
- Make sure you're on solid ground with your feet shoulder-width apart
- Keep the box or object close to your body
- Lift with your legs, not your back
- Limit the amount of weight you carry – it's better to separate boxes or make two trips than to carry too much at once
- Ask for help to carry heavy, bulky or large loads
- Keep pathways clear of tripping hazards

### Setting up a home office

More and more workplaces are providing telecommuting and working from home options to help maintain a better work-life balance for employees. While these options may be convenient, don't forget to make sure home offices are set up ergonomically correct. Here are some basic things to check off your list:

- Chairs have proper lumbar and arm support, and can be adjusted for height
- Feet are flat on the ground or footrest
- Viewing distance from your eyes to the monitor is at least 18 inches
- Keyboard and mouse are at approximately elbow height
- Lighting is sufficient enough that you don't have to strain, but not too bright where glare is an issue
- Proper accessories, such as a document holder or phone headset, may be necessary depending on the work

### Fast Stat:

About 80% of the American population will experience a back problem at some point. These injuries are not only preventable, they're also costly – Americans spend at least \$50 billion each year on back pain. (American Chiropractic Association)

### Green Cross Tip

Staying healthy and active are two big ways you can prevent low back pain. Those who carry around extra weight or smoke regularly are more susceptible to back injuries.



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*Use this checklist to perform a quick ergonomic safety check.*

*Find the checklist under*

*Practical Solutions at*

*[nsc.org/members](http://nsc.org/members)*





# Ergonomic Tips Sheet

*Use these smart tips to improve ergonomic issues with early intervention and don't forget to bring your knowledge home too!*



## Ergonomics: Combining comfort and safety

### Fitting the job environment to you

You should never have to feel like you need to work through pain to get your job done. Following the principles of ergonomics - the science of designing a safe and efficient job environment to work in - you can reduce stress and eliminate injuries associated with poor posture, overexertion and repeated tasks. Whether you're lifting boxes in a warehouse, placing items in an assembly line or typing on a computer, ergonomic safety is important to everyone.

If gone undetected, ergonomics issues can lead to serious muscle and joint concerns. If you are experiencing pain, swelling or numbness, be sure to pay attention to the following risk factors on the job:

- Improper workstation setup
- Overexertion while lifting, lowering, pushing, pulling, reaching or stretching
- Repetitive motions
- Working in awkward positions
- Sitting or standing too long in one position
- Using excessive force

Fortunately, ergonomic issues can be prevented and improved with early intervention. Here are some simple tips you can follow to avoid discomfort:

- Take frequent breaks - get up and stretch, walk around or change your scenery
- Vary the workday - if possible, try to space out different types of tasks
- Report pain or discomfort immediately - don't wait until it becomes serious, always inform your supervisor
- If you are a supervisor, be sure to monitor your employees and make sure they are taking necessary breaks

### Bring it home

While ergonomics is most commonly thought of as a workplace safety concern, ergonomic injuries can also result from activities at home and in communities like playing video games, cooking, sewing or home repair. They can also impact your ability to engage in hobbies you enjoy off the job with your family and friends.

Bring your ergonomic safety knowledge home with you:

- Carry a backpack, purse or laptop case that distributes weight evenly with multiple compartments; if your bag has only one strap, rotate which shoulder you carry it on
- Watch your posture at night - one-third of the day is spent in bed; make sure your mattress and pillows support good sleeping postures
- Look for ergonomically designed tools - kitchen knives, gardening shovels, rakes - that have grooved handles for your hands

Don't let an ergonomic injury prevent you from doing what you love. Keep these tips in mind for safe work and play.

### Fast Stat:

Overexertion is the third leading cause of nonfatal injuries in the United States, accounting for about 3.2 million emergency department visits. (*Njky Facts*™)

### Green Cross Tip

Your eyes need a break, too. Every 20 minutes, look 20 feet away for 20 seconds.



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