

THE UNIVERSITY OF MICHIGAN

THE LAW LIBRARY

# **TRAINING SESSION D**

## **Basic Security and Injury**

### **Prevention**

**Handout-only version**

**DO NOT USE WITH VIDEO**

THE UNIVERSITY OF MICHIGAN  
THE LAW LIBRARY

**Basic Security and Injury Prevention**

Copies of the *Emergency Manual* for the Law Library are kept in various places, including the Reference Desk and the Circulation Desk. Each manual is in a red binder labeled *Emergency Manual*. Ask your supervisor where to find the *Emergency Manual* for your unit.

- A. Priorities in case of an emergency
  1. Lives
  2. Collection
  3. Building
- B. Get expert help!
  - Call 911 if situation is life threatening
  - Otherwise ask your supervisor or another full-time staff member
- C. What to do if the building is being evacuated – **Important!**
  - Leave quickly without panicking; do not wait for others.
  - Use emergency exits in the underground addition
  - Go to corner of Tappan and Monroe in front of the Business School and wait for the “All Clear” announcement from fire officials.
- D. Fires and fire alarm
  - Alarm is an unmistakable, unique sound
  - Assume it’s a real fire, *not* a drill
  - Alarm is connected to campus security, so they will be notified automatically
  - Use emergency exits in the underground addition and **not** the exits in the Reading Room.
    - **Do not use elevators or main staircase to Reading Room**
- E. Building and maintenance emergencies (e.g., leaking water)
  - Notify your supervisor – damage of books possible!
- F. Tornado warnings
  - Go to lowest point of the underground addition, away from glass windows
  - Do *not* use the elevator
- G. Thefts of personal property
  - Call security at 3-1131
  - Notify your supervisor
- H. Injuries to people
  - Call 911 if serious injury
  - See the “Reporting on-the-job injuries” handout
  - Report the injury to your supervisor immediately
  - Always have injury checked by a physician
- I. Preventing work-related injuries
  - See the “Preventing work-related injuries” handout
  - Please ask your supervisor if you have any questions

## REPORTING ON-THE-JOB INJURIES

If you are injured while at work, report the injury to your supervisor immediately and then have the injury checked by a physician. Neither you nor your supervisor can decide that the injury doesn't need to be seen by a doctor. The state Workers' Compensation law requires you to be seen at a designated health care facility within 10 days of the accident or injury. This policy also applies to student employees.

- ***MWorks Occupational Health Clinic***  
University Hospital  
1500 E. Medical Center Drive  
998-8788

Go in through the **Emergency Department** entrance and turn left for the MWorks Clinic. If you drive, there is free valet parking at that entrance.

- ***Evenings and Weekends***  
Same location. Go to the Urgent Care Clinic in the same suite as MWorks.

### **Your supervisor should**

- Call *MWorks* to tell them you are coming.
- Complete an Employee Referral Form for you to take with you. Use the form on the following page, or photocopy it. You will not be charged.

### **If no supervisor is available and you go without the form**

- Ask a co-worker to call the clinic to tell them you are coming. The co-worker should also give the number for Library Administration, 764-9322, so the clinic can contact the library.
- Identify yourself as a University of Michigan Employee with a work-related injury.
- Notify your supervisor about your injury as soon as possible.

If you need transportation, take Yellow Cab there and back. Get instructions from Administration or the Circulation Desk rolodex (see "taxi cabs"). If the injury is serious but you don't need an ambulance, you may call the Department of Safety, 3-1131, for assistance.

Your supervisor will also complete an Employee Accident or Illness Report form describing the circumstances of the injury. She may need details of the injury from you. This form goes to the Workers' Compensation Office within 1 business day of the injury. It establishes that the injury occurred on the job, which can be important if you ever need to file a claim.

The library's policy is that all injuries must be checked by a doctor. This protects both you and the library. It protects you in case an injury that seems trivial at first develops into something more serious. It protects the Library by ensuring that you don't keep working, perhaps making the injury worse, until it has been evaluated by a doctor.

Rev 7-8-02

My Documents\Emergency Manual\injuries



## PREVENTING WORK-RELATED INJURIES

### Causes of injury

Back pain and cumulative trauma disorders can occur at the workplace by **overexertion**, **excessive force** or just too much **repetition**.

### Keys to prevention

1. **Thought before action--planning your activity**
2. **Use of appropriate and safe equipment.**
3. **Proper placement of equipment with regard to body.**
4. **Use of proper body mechanics.**
5. **Identification and early intervention of potential problems and early symptoms.**

### Thinking ahead:

Think about what is necessary for you to complete a job (see Figure 1).

E.g., remember to take a door stopper with you if you need it to help you get through a doors with a cart.

Thinking ahead also entails planning to your next movement to ensure the use of proper body mechanics.

E.g., before lowering books to a bottom shelf, remember to bend at the knees rather than the back.

Thinking ahead and planning for your safety is the first and one of the most important keys to injury prevention.

### Use of appropriate and safe equipment:

In process of work, equipment is often necessary to help accomplish the task. After thinking about what kind of equipment you need, be sure that the equipment you select is safe:

- Stools should be self-locking stool with wheels.
- Carts should be easy for you to push with large, semi-pneumatic wheels, designed to be easily handled for the job you need to do.
- Ladders should be stable and sturdy.
- Tables should be stable and the right height.
- Shoes should be stable, flat , for climbing ladders and stools.

### --maintenance

Equipment should be given a maintenance check--especially carts, which need a maintenance check every 6 months. Wheels should be cleaned.

### Placement of equipment:

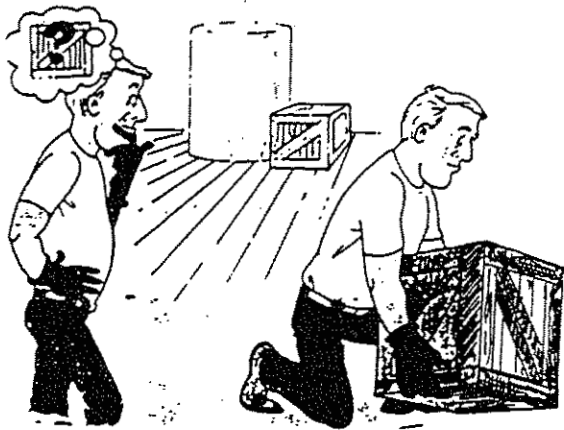
You should think about where you place the equipment you use so that it assists in good body mechanics.

Examples of good placement involving shelving:

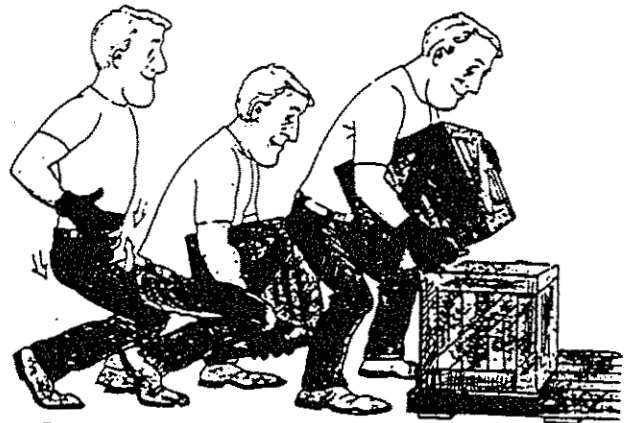
- Use stools and ladders so as to minimize overhead reaching.
- With a stool, place the stool near the bookshelf so you are not stretching and leaning to reach.
- Place carts near stools so as to eliminate the need to twist.
- Use the top shelf of the cart when working with high shelves so as to minimize bending and reaching.

Source: BACK TO BACKS: A GUIDE TO PREVENTING BACK INJURY

**Handling Tips—Thinking Along the Way**



**Figure 1**  
Lift load mentally. Plan every step before you perform it physically.



**Figure 2**  
Get close to the load. Keep your feet apart for a stable base. Bend your knees, tighten stomach muscles, lift with your legs. Keep load close.

**Figure 3a, b, c**



**Push, don't pull.** You can push twice as much as you can pull, while running less risk of back strain.



**Don't twist when you lift and carry.** Avoid twisting or excessive bending when you set down your load.



**Watch your footing.** Wear non-slip shoes. Keep toes out for extra stability. Take small steps. Go slowly.

## Proper body mechanics

### **Actions**

#### **--lifting**

(see Figure 2)

The work of lifting should be done with the legs instead of the back. Before lifting, get close to the load, setting your feet apart for stability; then, bending at the knees and tightening the stomach muscles, lift the load, straightening the legs. Keep the load close to you.

#### **--push vs. pull**

(see Figure 3a)

*Pulling* a cart is more likely to produce back strain than pushing. By *pushing* carts and other wheeled equipment, one can move twice as much as by pulling. Carts and equipment should not be so loaded that even pushing requires straining. Push carts within your pushing ability.

If pushing a cart requires throwing body weight into cart to the degree that you are hyper-extending your hands (Figure 4a), the cart is probably too heavy. Shelves confronted with even reasonably loaded carts should consider stretching for a couple of minutes before starting their work.

#### **--twisting**

(see Figure 3b)

A twisting action, especially of the back, is a big no-no. One of the major ways to prevent work-related back injury is to place equipment so it easy to turn between one work position and the equipment. To do this use proper foot placement. Equipment should be placed so a worker can slightly shift body direction with the feet without twisting the back. While lifting, carrying, and setting down a load, one should also avoid twisting.

#### **--climbing**

(see Figure 3c)

Wear non-slip shoes for jobs requiring climbing. Keep toes turned out for extra stability.

#### **--reaching**

Try to reach between shoulder and waist level. Try to avoid far and overhead reaching. When reaching below waist level, bend at the knees versus the back. Reach with both arms instead of one arm.

#### **--gripping**

(see Figure 5a,b)

It may seem natural to grip and carry a item of substantial weight--such as a book--by pinching it between fingers and thumb, but it is easier on the body to take a book using both hands and carry it down at the side--hand/fingers curved under and around book in a hook position.

Summary of Do's and Don'ts: Proper body mechanics

DO	DONT
<ul style="list-style-type: none"> <li>-think, plan, before physically working</li> <li>-warm-up 2-3 minutes</li> <li>-place stool close to the bookshelf, reach between shoulder and waist level</li> <li>-bend your legs to reach below waist level</li> <li>-use both arms while reaching</li> <li>-use foot placement for turning</li> <li>-use neutral position of the wrists (see handout)</li> <li>-use hand grip in hook position (see handout)</li> <li>-push cart with books within your pushing ability</li> <li>-take posture breaks when performing repetitive work</li> </ul>	<ul style="list-style-type: none"> <li>-start without any preparation</li> <li>-push heavy carts without a brief warm up period</li> <li>-reach far, or overhead for heavy books</li> <li>-bend your back to reach below waist level</li> <li><b>-twist or turn with lower back!!</b></li> <li>-bend your wrists too much forwards or backwards</li> <li>-refined grip or wide grip with one hand</li> <li>-push with shoulders only</li> <li>-no pulling</li> <li>-overload the cart.</li> <li>-avoid repetitive movements with your hands/fingers</li> </ul>

## CHOOSING THE RIGHT ANGLES TO PREVENT KEYBOARD INJURY

### POSTURE

Back angled backward a few degrees to widen angle between torso and thighs, increase blood flow and reduce compression of spine.

Arms relaxed and loose at sides; forearms and hands parallel to floor.

Thighs at right angle to torso.

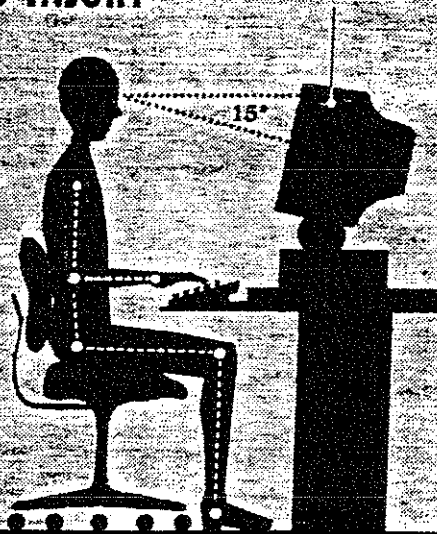
Knees at right angle to thighs.

### CHAIR

Back rest fits curve of lower back.

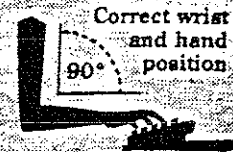
Seat inclines forward slightly to transfer pressure from spine to thighs and feet.

Cushion curves downward at front to ease pressure on thighs.



### MONITOR

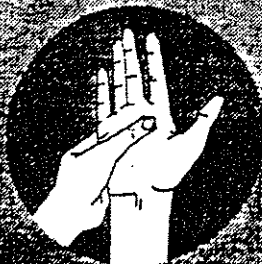
Top of screen at eye level, center viewed with slight downward gaze.



Correct wrist and hand position



## WARMING UP: Exercises for the hands, wrists and fingers



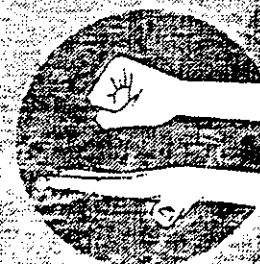
Massage inside and outside of hand with thumb and fingers.



Grasp fingers and gently bend back wrist. Hold for five seconds.



Gently pull thumb down and back until you feel the stretch. Hold for five seconds.



Clench fist tightly, then release, fanning out fingers. Repeat five times.

Source: John Kella, Ph.D., Miller Health Care Institute for the Performing Arts; Joyce Institute

Detroit Free Press, Mar.10, 1992

Source: Yokich, S. P., Pestillo, P. J.: The UAW-FORD JOB IMPROVEMENT GUIDE, UAW-Ford National Joint Committee on Health and Safety, 1988.

Figure 4a, b, c

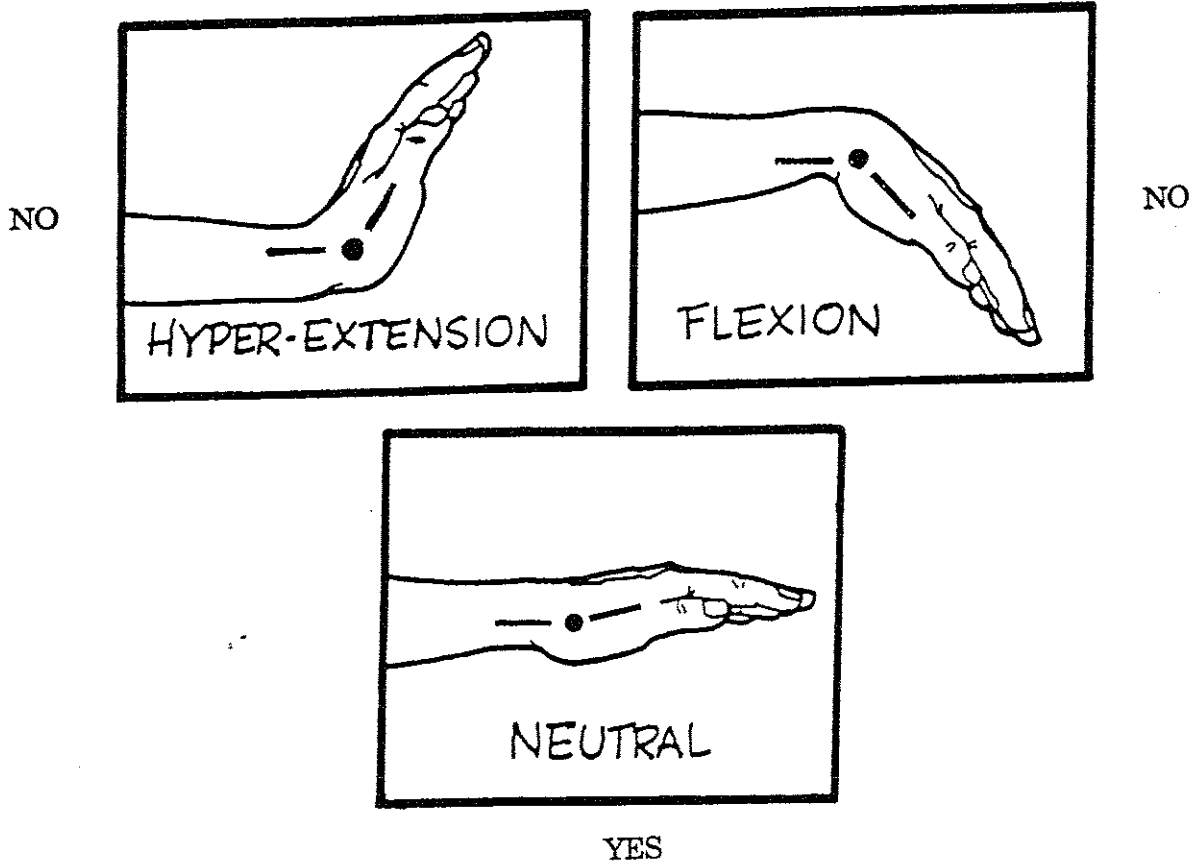
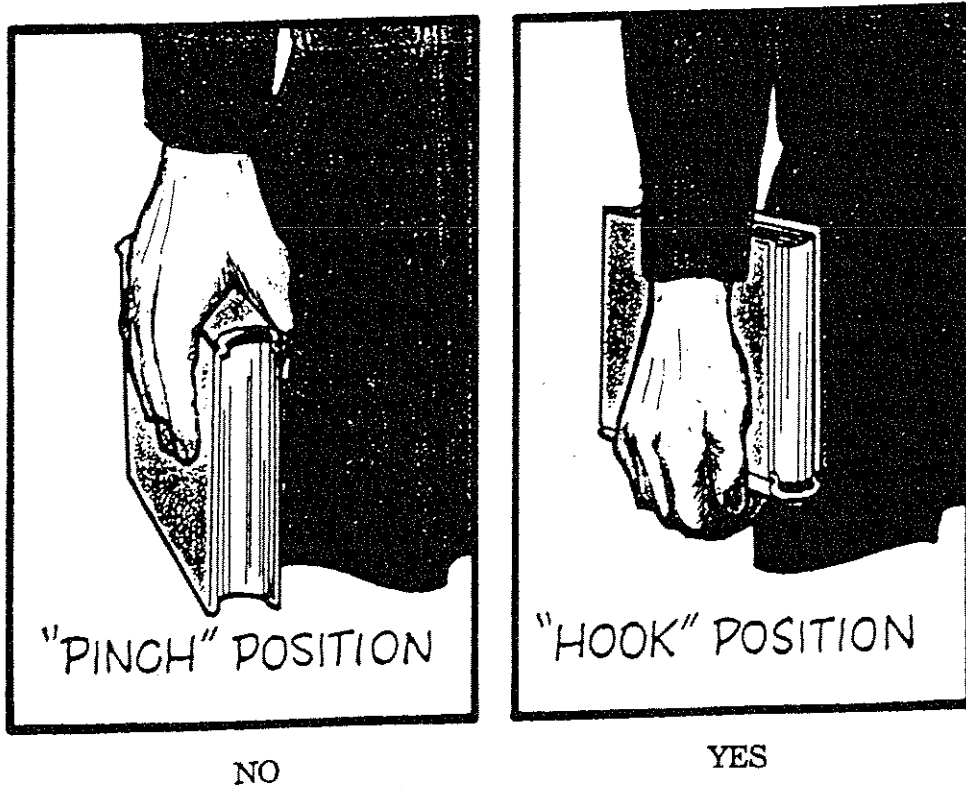


Figure 5a, b



**Identification and early intervention of potential problems**

Knowing the risk factors can help you stop injury. For the back and arms especially, take note of the following risk factors:

**Back: risks**

- twisting/turning
- poor body mechanics while lifting/carrying, pushing/pulling
- staying too long in one posture (sitting, forward bending)
- vibration
- smoking

**Arms: risks**

- excessive force
- repetitive movements
- mechanical stress
- using pinching action

**Environment & equipment**

Identify problems involving the equipment or your environment. Note where these problems cause physical stress. Take note of material objects, tools or areas that impede your work or strain your body.

E.g.:

A surface which is unlevelled, such as an elevator surface not in alignment with the hallway surface, can jar the body. Maintenance may be able to adjust the elevator. Maintenance can also level off edges under doors.

Old or malfunctioning equipment or tool, like a stapler, can cause stress on the part of the body straining to compensate for the work the equipment should do easily. Report problem, replace equipment.

Be sure to report any problems to your supervisor, who will take the proper steps to try to solve the problem, replace equipment, or look for equipment that is safe or an aid to reduce stress.

**Early symptoms**

What kind of symptoms may result in back problems/upper extremity problems?

- lower back, aching pain
- reduced ability to move
- upper back pain
- fatigue at the end of the day
- pain at night in arm(s), wrist(s)
- numbness, tingling in hand/fingers
- heat, redness, swelling in muscles/joints
- decreased activity
- weakness in refined grasp
- reduced feelings in hand
- decreased productivity

**What to do if you**

**recognize risk factors.** Report any problem. Report any of the above symptoms to your supervisor.

**How to prevent back and upper extremity injuries:**

- 3 times per week cardiovascular activities (please consult your doctor first) - 20 minutes
- listen to your body
- no smoking
- warm ups and use posture breaks (see Appendix A for warm-ups).
- incorporate above mentioned recommendations daily.

**Finding Cause and Relief of Symptoms**

Ask yourself the questions below. If symptoms persist after taking corrective action, ask your doctor about physical therapy or occupational therapy.

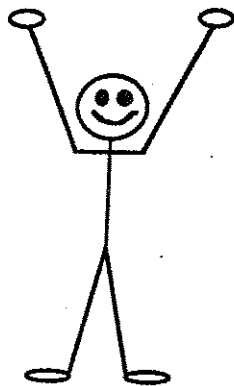
1. Are you planning ahead your workload?
2. Are you doing any warm-ups before you start lifting, carrying, pushing, pulling?
3. Do you consistently use good body mechanics?
4. Do you incorporate good body mechanics outside of work time?
5. Do you check the pushing cart before using it? (i.e. the number of books loaded on the cart, the position of the wheels, any obstacles on the floor)?
6. Do you load the pushing cart with enough books within your pushing capacity?
7. Do you use two hands while handling books?
8. Do you take posture breaks when frequent, repetitive movements are required?
9. Do you have any symptoms in lower back, shoulders, or arms?
10. Are you involved in cardiovascular activities 3 times a week (i.e., fast walking, biking, aerobics)?

**Safety rules to observe when using sharp implements:**

1. Make sure the cutting tool is in good condition. Keep cutting tools sharp. Replace cutting blades frequently.
2. Never cut towards the body.
3. Always keep a safe distance from another worker.
4. Always enclose the blade when the tool is not in use or when it is being transported.

Appendix A

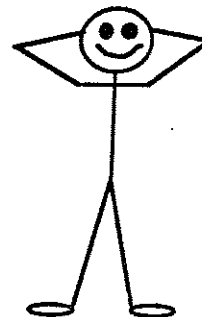
**WARM-UP EXERCISES AND POSTURE BREAKS ACTIVITIES**



Stretch your arms  
5x



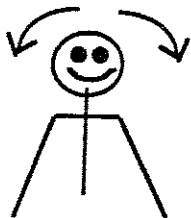
Lengthen your back  
5x



Place your hands behind  
your head, 3x



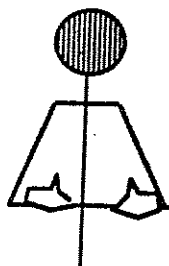
Roll your shoulders  
5x



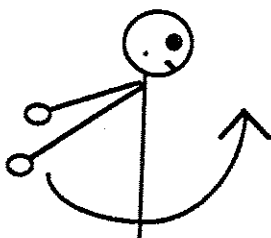
Move your head  
5x



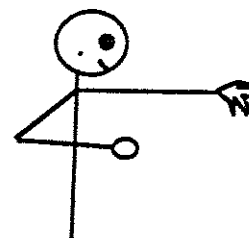
Reach for your elbow  
and stretch hold, 3x



Hold your arms  
behind your back



Swing your arms  
5x



Move arms, open and  
close your hands, 5x

**Training Session D Basic Security and Injury Prevention**

**Basic Security and Injury Prevention**

**Quiz**

Name \_\_\_\_\_ Date \_\_\_\_\_

1. Where are copies of the red Emergency Manual kept?
2. I should be more concerned about people's lives, including my own, than about the building in case of an emergency.

True/False?

3. If the building is being evacuated, I should make sure everyone else is out before I leave.

True/False?

4. I should use the elevators when I evacuate during an emergency.

True/False?

5. If I hear a fire alarm, I should assume it's a drill, not a real fire.

True/False?

6. Whom should you call if you see water coming into the building?

7. If I am injured at work, I should see a doctor right away.

True/False?

PLEASE RETURN YOUR COMPLETED QUIZ TO YOUR SUPERVISOR.

PLEASE REMEMBER TO REWIND THE TAPE BEFORE RETURNING IT TO THE CIRCULATION DESK.

Basic Security and Injury Prevention Quiz, \_\_\_\_\_

## TRAINING SESSION EVALUATION

Please complete this form and give it to your supervisor along with the quiz from this training session. *Please be as complete and thoughtful as you can.* We use these evaluations to improve the sessions and you, the trainees, are the best people to tell us whether our training program is effective.

Name of Training Session \_\_\_\_\_

Date you read handout, viewed or listened to the tape, or date of group session \_\_\_\_\_

The format of this session was (check one)     handout     video     audio     live

Please circle the number that best describes your response:

	Agree	Neutral	Disagree
This topic is relevant to my job	1	2	3
I understand the library's philosophy on this topic.	1	2	3
I learned enough about this topic to perform this part of my job competently.	1	2	3
I know how to find information on this topic when I am on the job.	1	2	3
The quiz helped me be sure that I understood the material in the session.	1	2	3
The presentation was clear.	1	2	3
The handouts are useful.	1	2	3
Too much material was presented.	1	2	3
I need more information on this topic.	1	2	3

We use recorded sessions because: new employees can be trained as soon as they are hired and at their convenience; and recorded training sessions can be complete and consistent.

The best format for this session is (check one)     handout     video     audio     live

Please use the back for comments on any aspect of the training program. Or, give suggestions to your supervisor, or to someone in Library Administration.