

# Section 12

## MATERIAL HANDLING

### 12.1 Manual Handling Lifting of Material

- (a) When any heavy object is to be lifted and carried to another point, first inspect and clear the area and route over which the object is to be carried. Be sure nothing is in the way that might cause slipping or tripping.
- (b) Inspect the object to be lifted to determine how it will be grasped. Make sure it is free of sharp edges, protruding nail points, slivers or other hazards that might cause injury to the hands or body. Wear appropriate gloves to protect hands. (See Section 3.)
- (c) Do not permit material storage within 6 ft (1.8 m) of escalator wellways.

### Lifting Loads

- (a) Incorrect lifting methods require unnecessary effort and often cause strain or other types of injuries. When it is necessary to lift any object which is difficult for one person to handle, ask for help.
- (b) The safest way to lift is actually the easiest way to lift (see Figure 12a):

Figure 12a



- (1) Get a secure footing.
- (2) Bend at knees to grasp the object.
- (3) Keep a natural curve in back and as nearly upright as possible.
- (4) Get a firm hold.
- (5) Lift gradually by straightening legs, keeping the back as nearly straight as possible.

The same procedure must be observed when setting loads down.

- (c) Two common injuries that occur in our industry are back sprain or strain. Low-back pain is the most common ailment. The misconception that back injuries are only caused by improper lifting lulls us into a false sense of security. Overexertion, overextending, overreaching and improper bending are some of the many causes of low-back pain. Most of the low-back ailments are normally not of a serious nature, until we choose to ignore the warning signs. When this happens, the backaches become chronic.

**Figure 12b**

### **Position for Lifting**



All the load is on the back

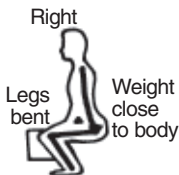


Figure 12c

## HELPFUL HINTS FOR ON AND OFF THE JOB

Walk with good posture. Keep head high – chin tucked in. Don't slouch.  
Don't wear improper shoes.

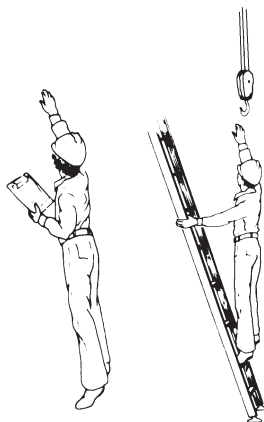


### DO'S



Stay close to your work and keep feet flat on floor.

### DONT'S



Don't overextend your reach by being on tip-toes.

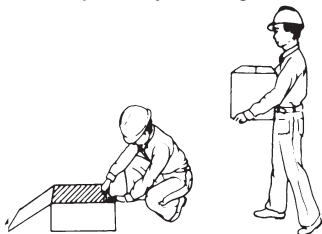
**Figure 12d**

**DO'S**



Keep feet flat on the floor when sitting. Your back should be firmly against the back of the chair.

Bend with your knees – keep a natural curve in your back. Lift objects only chest high.



Sleep on firm mattress. Sleep on your side with your knees bent.

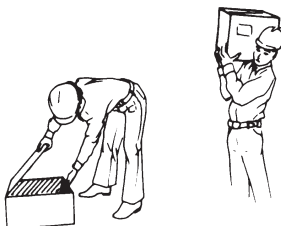


**DONT'S**

Don't Slump. Keep chair close to your work. Avoid excessive leaning and arching your back.



Don't bend with your legs straight. Avoid lifting above shoulder level.



Don't sleep on soft, sagging mattresses. Sleeping on your stomach will cause sway back.

