# Follow safe lifting principles to avoid back strain.

- Let your legs, not your back, do the work.
- Try to avoid leaning, bending, reaching, and stooping.
- Stand at bedside with one knee bent or resting on a stool.
- Don't twist to reach or change position. Turn your feet or swivel your hips, keeping your back straight.
- Wear sturdy shoes with nonskid soles.
- Keep feet spread a bit to provide support.
- Work at a height that doesn't require much bending.
- Change positions frequently.
- Take short breaks to stretch or move around.
- Don't overexert yourself. Learn your own limits.

# Plan before you lift or move a patient.

- Decide if you need help from another person or mechanical aid.
- Assemble the equipment or help you need.
- Check that you have a clear route; remove any obstacles.
- Explain the procedure to the patient.

# Plan and coordinate two person lifts.

• Have one person in charge, giving the count.

# Position and complete lifts properly.

- Make the bed and other surface level, close, and lock in place.
- Move the patient to the transfer side of the bed.
- Stand close to the patient, with your feet shoulder-width apart.
- Bend at the hips and knees with your back straight.
- Grip the patient firmly and hold him or her close to your body.
- Lift slowly with your legs, keeping knees bent.
- Use lifting boards or mechanical lifts when possible.
- Have two or more persons help on the move if the patient is heavy, immobile or attached to tubes and wires.

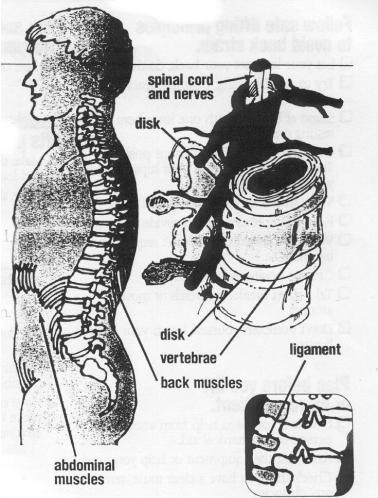
# Your back is your foundation...

# it supports your entire body.

Your spinal column is made up of **vertebrae** (bones) and **disks** (cushioning pads between the vertebrae).

Ligaments connect your vertebrae. At the center of the spinal column is the **spinal cord. Nerves** run from the **spinal cord** to other parts of the body. **Muscles** are also attached to the bones in your spinal column. Working with the muscles in your stomach, they keep the spinal column in place.



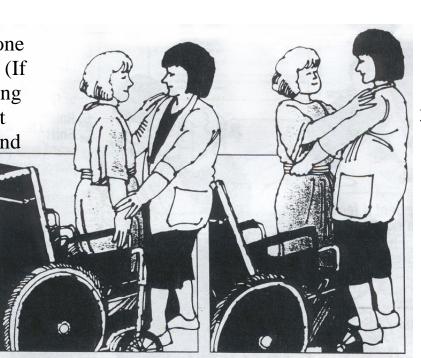


#### If you Slouch...

the ligaments, not the muscles, do all the work – work they're not designed to do. They stretch – and hurt – and put pressure on the vertebrae. Your lower back takes most of the strain when you're sitting, so you have to be particularly careful with it.

### Helping Patients Sit Down

1. Lock chair wheels or have someone hold chair. (If using a lifting belt, wrap it firmly around patient's waist).





3. Place arms under patient's arms and clasp your hands behind patient's back or grab back of lifting belt.

- 4. **Pivot patient** so back of patient's legs just touch chair.
  - 5. Shift your weight forward and slowly lower patient into chair. As you shift weight, slide one foot beside the chair so one foot is well ahead of the other.

## Helping Patients Stand Up



- 5. **Put arms under patients arms** and clasp your hands together or grab back of lifting belt.
- 6. Hold patient close to you.
   Shift your weight backward and pull patient up. Keep your knees bent and maintain your back's

natural curve.

1. Place patient's feet firmly on floor. (If using a lifting belt, wrap it firmly around patient's waist. Pull up on the lifting belt.)

2. **Stand** with your feet apart, back straight, and knees bent.

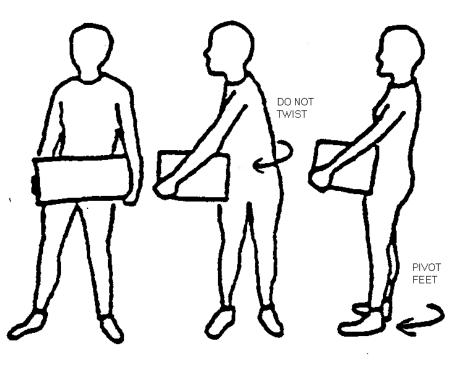
3. Place feet on sides of patient's legs. Put one foot in front of patient's feet as brace, the other foot 8 to 10

inches further forward.4. Place patient's hands on your waist.

#### **Body Mechanics**

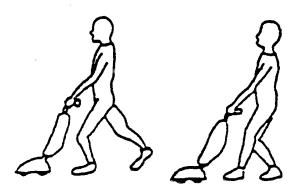
Most people are not aware of the excessive amount of bending and twisting they do throughout the day. This repeated bending and twisting can contribute to back pain. Here are some tips to help reduce twisting of your low back.

1. Do pivot your feet. Do not twist at the waist.



2. Shifting your weight: use this when vacuuming or mopping floors.

Forward and Backward



Side to Side

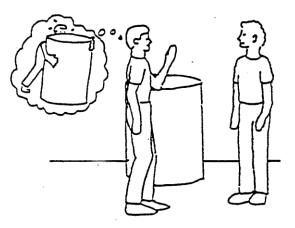


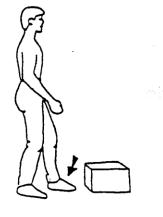
#### Lifting and Moving Objects

It is extremely important that when lifting objects you maintain proper body positioning. The most important part of lifting is planning.

How to lift properly:

- 1. Size up the load: If the load is too bulky or heavy, find someone to help you or use available equipment, such as a pull cart or dolly.
- 2. Maintain a firm footing: Keep your feet apart, toes pointed outward.
- 3. Bend at your knees, keep back straight.
- 4. Tighten your stomach muscles.
- 5. Lift with your legs.
- 6. Keep your load close.
- 7. Don't twist: twisting increases the stress on your spine. Pivot with your feet or take small steps.







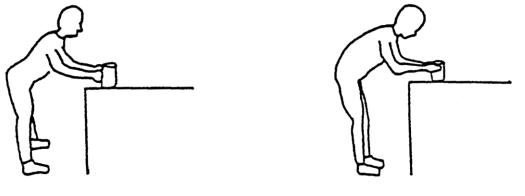




#### **Bending:**

Sometimes bending forward cannot be avoided. Here are some tips to help you bend correctly.

1. **Bend at the hips** rather than the waist. Keep abdominals pulled in, keep knees slightly bent.



Correct

Incorrect

2. Put hand forward on table or counter top and lean on it. Keep abdominals pulled in.



3. Extend one leg behind.



Pushing and Pulling Objects:



Pushing and pulling may cause excessive strain on your spine. Improper pushing and pulling can cause a major change in your three natural spinal curves, and it may also over stretch the muscles and ligaments in your back. It is better for your back to push or pull an object than it is to lift it. If you have the option, push rather than pull.

The following guidelines are for pushing and pulling techniques:

- 1. Keep your back straight. Maintain all three spinal curves. Keep your chest high.
- 2. Place one leg behind you for better leverage. Your toes should point straight ahead.
- 3. Bend at the knees and hips. Use your leg muscles to push. Your arms and back are for stabilizing only.
- 4. Your force should be applied in the direction the object is moving.

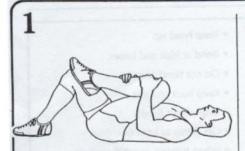


# LOW BACK EXERCISE PROGRAM

The following exercises are designed to increase gradually strength and flexibility in the low back and surrounding musculature. Continue to do the exercises after your back injury has healed. This will decrease the chance of re-injury and future back problems.

#### THIS PROGRAM SHOULD BE DONE ONLY WITH THE APPROVAL OF YOUR DOCTOR.

#### DIRECTIONS FOR EXERCISES 5. Begin by completing 5 repetitions of each exercise, except 1. Study the position of each figure carefully before performing those which state ONLY ONCE in the caption. each exercise. 6. Add additional repetitions as you can tolerate comfortably. 2. Complete all exercises in the order shown unless otherwise in-Work to 15 repetitions of each. Continue to do only 1 repetistructed by your doctor. tion where instructed. 3. Do this routine at least 3 - 5 times a week, daily is preferable. 7. Peform all exercises smoothly, never jerk or bounce from one position to another. 4. Discontinue any exercise which causes pain, until you can add it to the program without discomfort. 8. Unless the caption says otherwise, when an exercise is done to both sides of the body, complete the repetitions to one side and then repeat to the other side.



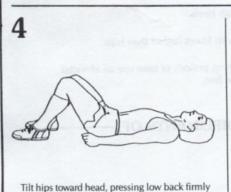
Keeping low back flat, bring each knee to chest for 30 seconds. Alternate legs. **DO ONCE.** 



Keeping low back flat, bring knees to chest for one minute. **DO ONCE** 



Keeping low back flat on floor, curl upper body toward pelvis until hands cup kneecaps. Hold 2-3 seconds.

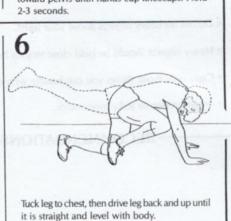


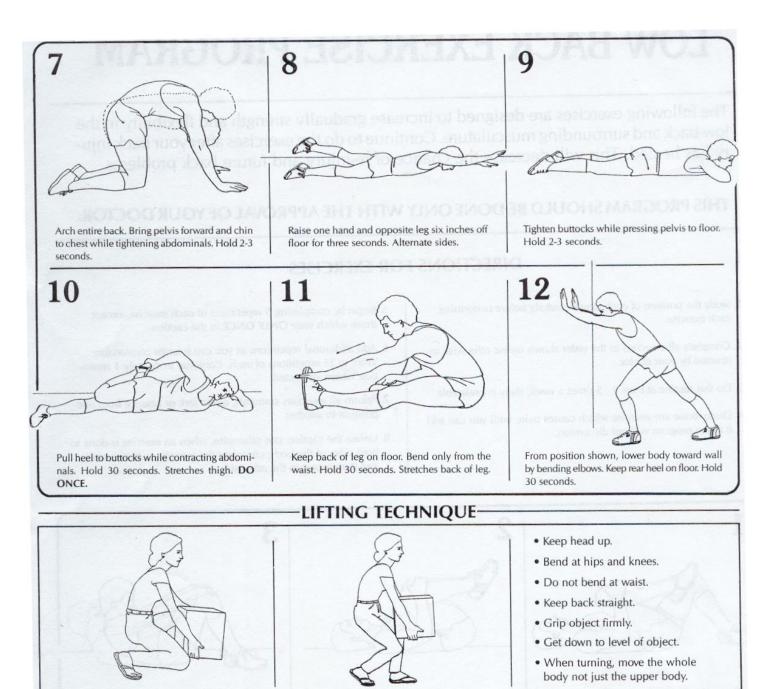
to floor and tightening abdominals. Hold 2-3

seconds.



Pull leg to bent position then follow motion shown. Complete all repetitions to one side.





- Encode leveloped dev. Busine 1 one minute. ERG GAVED.
- **BACK CARE TIPS**
- Do not lift heavy objects above your waist.
- · Heavy objects should be held close to your body.
- · Carry only those things you can handle with ease.
- · Avoid sudden or jerky movements.

- Avoid shoes with high heels.
- When possible sit with knees higher than hips.
- When standing for long periods of time use an elevated footrest and alternate feet.

#### **CERVICAL SPINE MOBILITY**

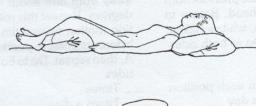
#### **EXERCISE GUIDELINES**

These exercises are designed to help develop correct cervical posture, achieve normal muscle tone/joint mobility, and reduce musculoskeletal stress.

- Do these exercises only under the supervision of a physical therapist and/or doctor.
- Pulling, aching, and throbbing feelings are to be expected, while doing the exercises.
- Feeling tired, weak, or sore for the first week of exercises is possible.

#### SLEEPING-

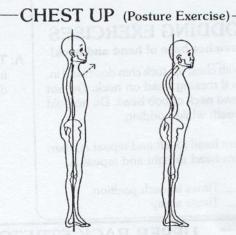
- DO NOT sleep on the stomach.
- Support the curve in the neck when sleeping on back or side.
- Your physical therapist will discuss the use of an appropriate neck pillow.





Pillow under knees places low back in rest position. Use appropriate neck support.

Use pillow under arm and between knees. Use appropriate neck support.



sharp or stabbing pain, and/or radiating pains into the

Good head/neck posture during sitting, standing, walking, etc is accomplished by holding your chest up and forward. This head/neck posture may be strenuous at first. **Do not force**.

#### SITTING - RISING

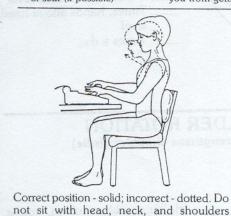
- Chairs should have:
- wheels (if possible)
- unyielding straight back
  up/down adjustment of seat (if possible)
- low back support (Discuss
- with physical therapist.)
  armrests which do not prevent
- you from getting close to your work area.
- Reading material should be at eyelevel (if possible)

• Stop exercising if you experience:

head/arms/facial areas.

nausea or dizziness.

Do not look down at your work by moving your head, neck, and shoulders forward. Look down by moving your head on your neck only.
Keep chest up always.



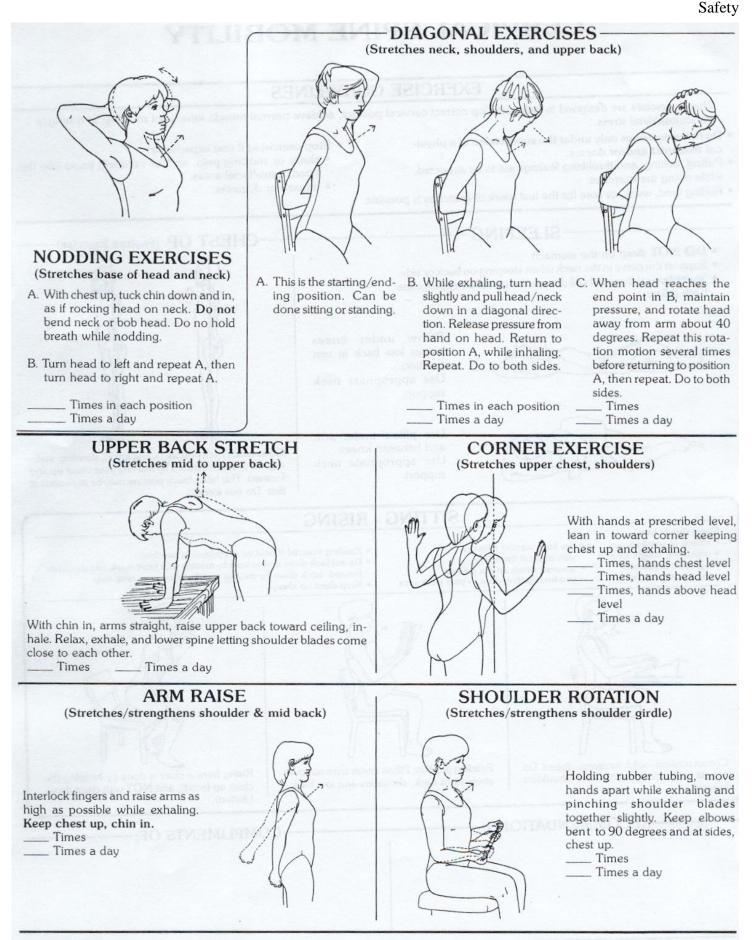


Reading position: Pillow under arms removes stress from neck, shoulders and low back.

sing from a chair is done by keeping t

Rising from a chair is done by keeping the chest up (solid), and **NOT** with chest down (dotted).

forward.

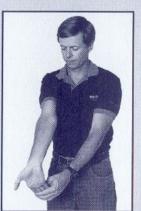


#### ACTIVE RELEASE TECHNIQUES® ARM, WRIST, AND HAND STRETCHES

#### WRIST PRONATORS



 Flex arm and stretch fingers down and back with opposite hand.
 Straight while keep on fingers.



2. Straighten arm while keeping tension on fingers



**3.** Rotate arm by twisting fingers inward.

# THUMB FLEXORS

 Extend wrist back, allowing fingers to curl in.
 Stretch thumb back toward arm.

#### WRIST FLEXORS



1. Flex arm with palm up like holding a tray.

2. Reach through with opposite hand and stretch last two fingers down.

#### WRIST EXTENSORS



1. Place arm straight down at side with plam facing back.

2. Stretch hand back, allowing fingers to cup.



3. Rotate hand outward.

**4.** Make a loose fist for more stretch.