

# Proper Lifting and Protecting your back.



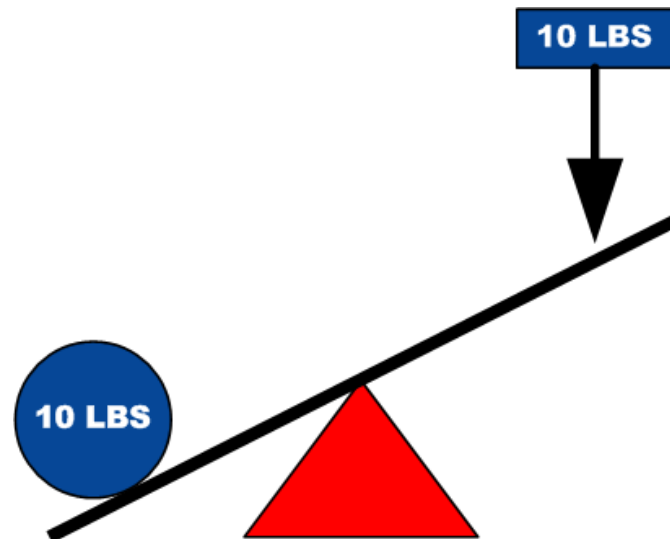
Your workplace will **GAIN**,  
When you have no **PAIN**!





# The Forces Involved

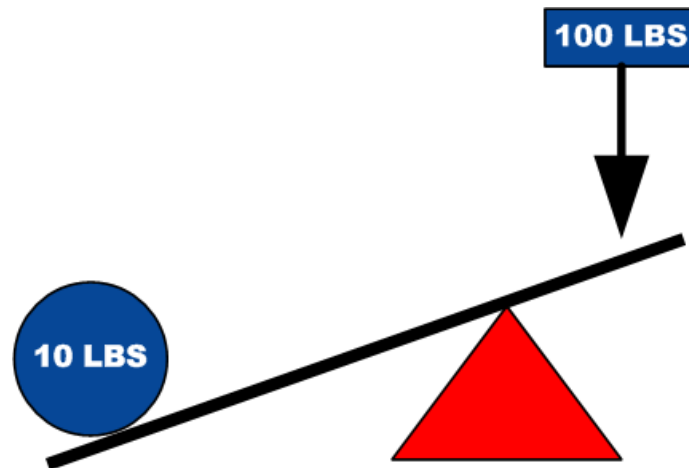
- The amount of force you place on your back in lifting may surprise you!
- Think of your back as a lever.
  - With the fulcrum in the center, it only takes ten pounds of pressure to lift a ten pound object.





# The Forces Involved

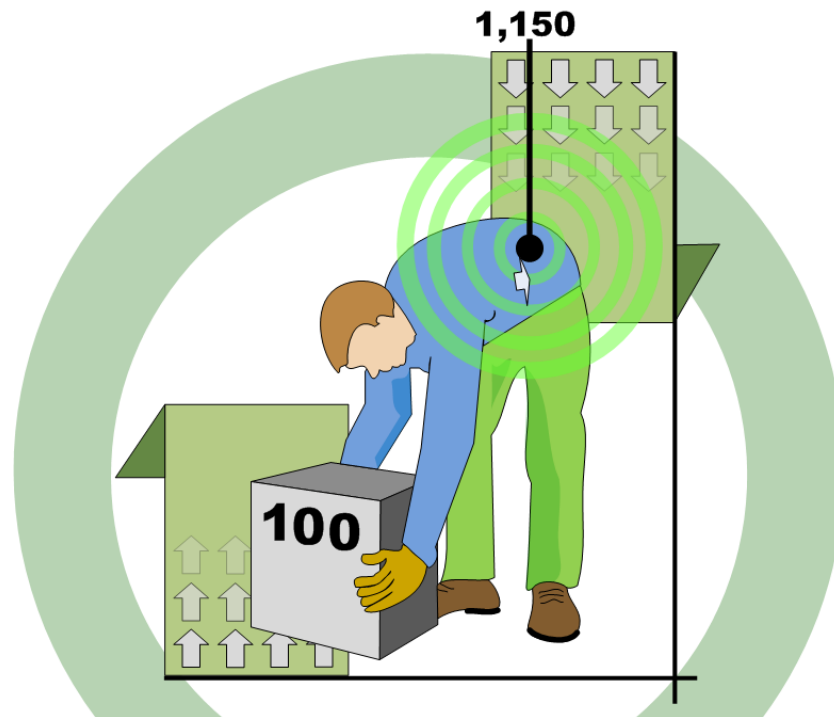
- If you shift the fulcrum to one side, it takes much more force to lift the same object. Your waist acts like the fulcrum in a lever system, on a 10:1 ratio.
- Lifting a ten pound object puts 100 pounds of pressure on your lower back.





# The Forces Involved

- When you add in the 105 pounds of the average human upper torso, you see that lifting a ten pound object actually puts 1,150 pounds of pressure on the lower back.





# Common Causes of Back Injuries

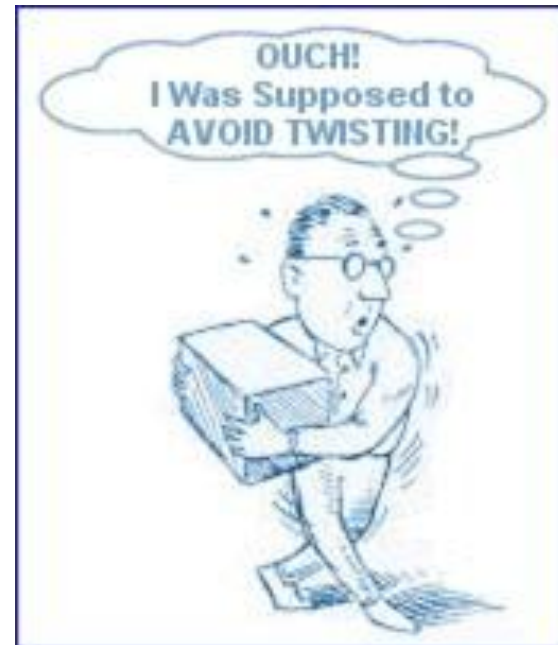
- **Anytime you find yourself doing one of these things, you should think:**
- **DANGER!** My back is at risk!
  - Try to avoid heavy lifting, especially repetitive lifting over a long period of time.





# Common Causes continued .....

- Twisting at the waist while lifting or holding a heavy load ... This frequently happens when using a shovel.





# Common Causes continued .....

- Lifting or carrying objects with awkward or odd shapes. Working in awkward, uncomfortable positions.
- Reaching and lifting over your head, across a table, or out the back of a truck.





# Common Causes continued .....

- Sitting or standing too long in one position (sitting can be very hard on the lower back.)
- It is also possible to injure your back slipping on a wet floor or ice.





# Prevent Back Injuries!

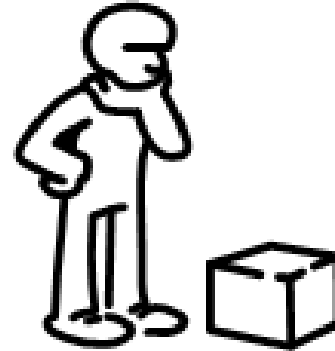


- 1. Avoid lifting and bending whenever you can.**
- 2. Place objects up off the floor.**
- 3. Raise/lower shelves.**
- 4. Use carts and dollies.**
- 5. Use cranes, hoists, lift tables, and other lift-assist devices whenever you can.**
- 6. Test the weight of an object before lifting by picking up a corner.**
- 7. Get help if it's too heavy for you to lift it alone.**
- 8. Use proper lift procedures**

# Safe lifting!



- Plan the lift.



- Stand close.



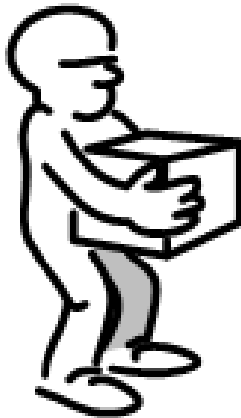
- Bend your knees.



- Keep back straight.



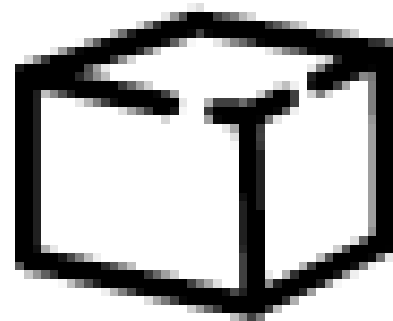
- Use your leg muscles to lift the load.



# Plan the lift.



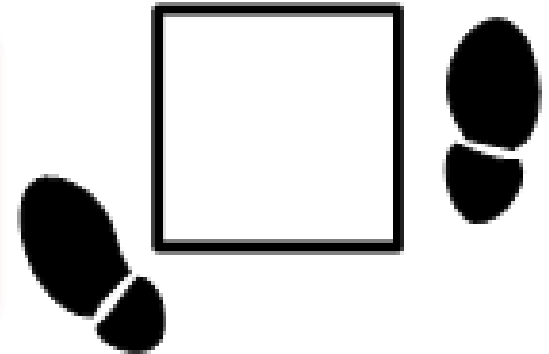
**If the load is too heavy, get help or think about another way to move the object.**



# Follow proper lifting rules.

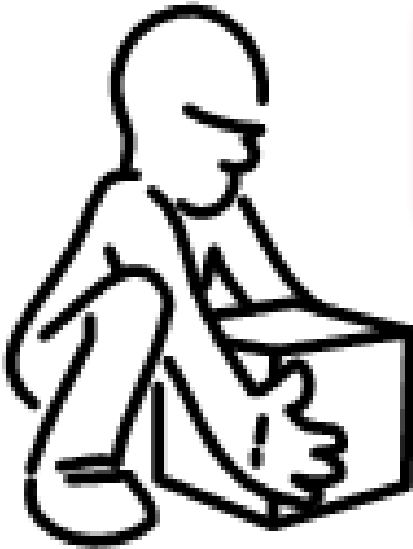


**STAND CLOSE TO THE OBJECT:**  
If possible, put one foot beside the object and one foot behind it, this gives you balance and stability.



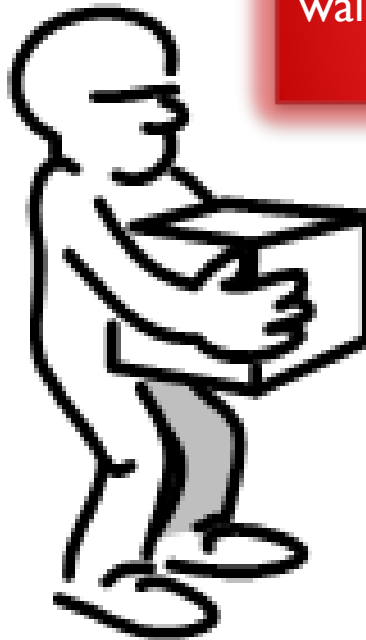
**BEND YOUR KNEES:**  
Hold the load firmly with both hands  
(not just your fingers or it might slip)

# Continued.....



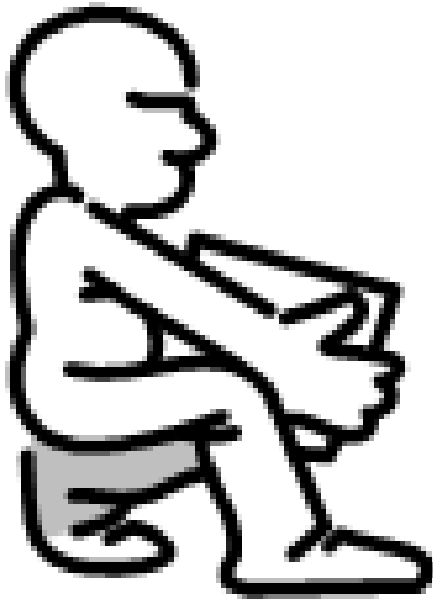
**KEEP YOUR BACK STRAIGHT**, raise your head and pull your chin in.

**LIFT THE LOAD** to your waist slowly by straightening your legs.



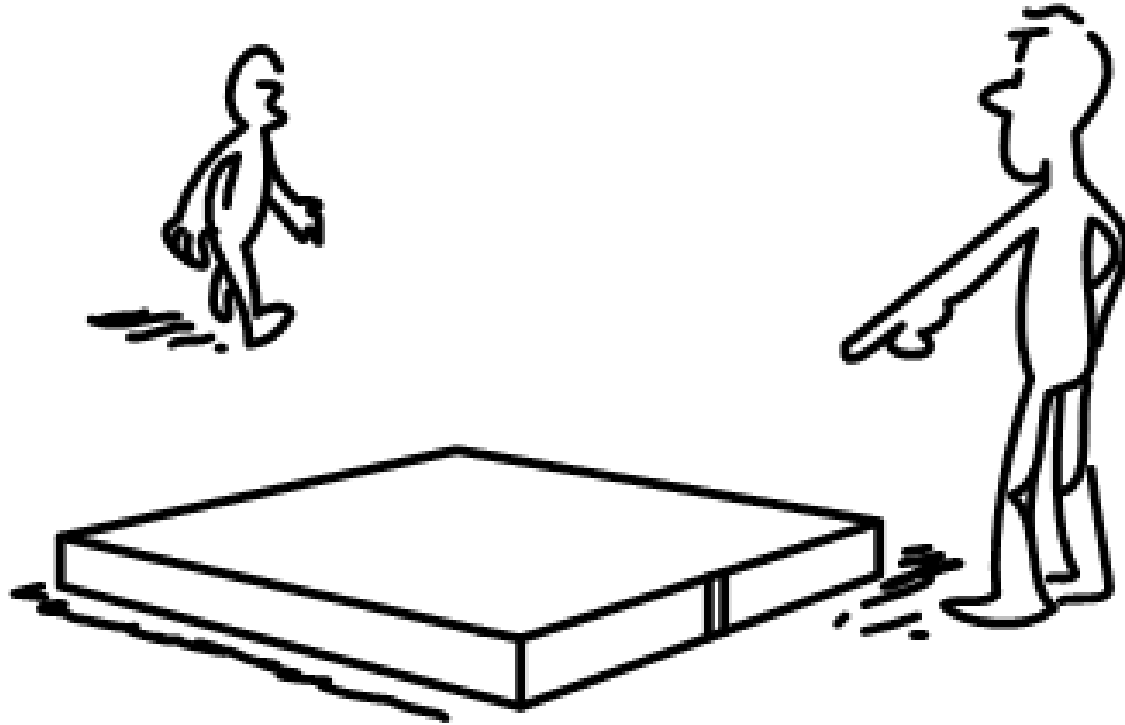
**USE YOUR LEG MUSCLES TO LIFT.** Lift smoothly and slowly keeping your back straight.

# Proper completion.



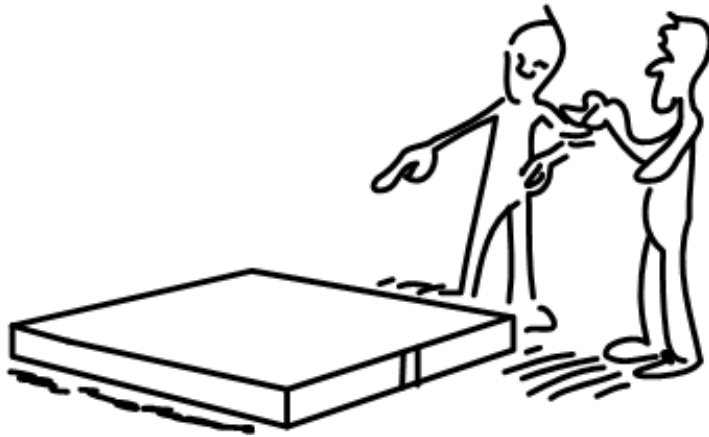
**TO PUT THE LOAD DOWN,  
BEND YOUR KNEES AND KEEP  
YOUR BACK STRAIGHT.**

# Larger lifts.



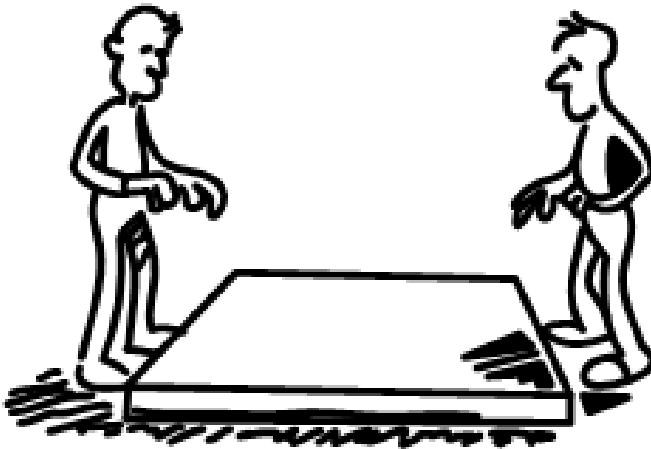
**“DON’T DO IT YOURSELF!”**

# Get some help.



Find someone about your size and weight to help you.

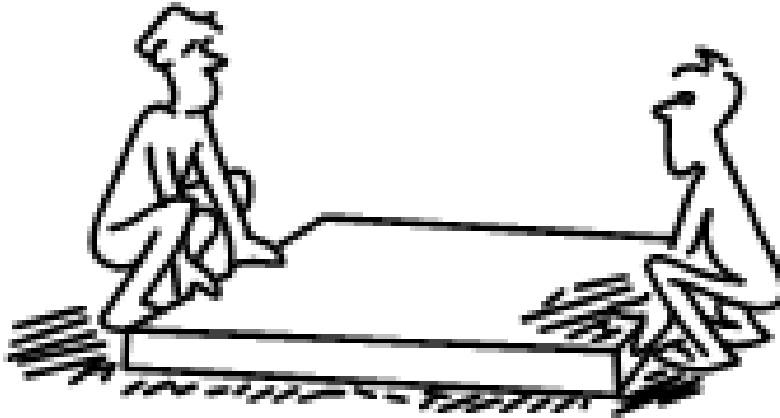
One of you should be the leader who gives directions. Plan the lift together.



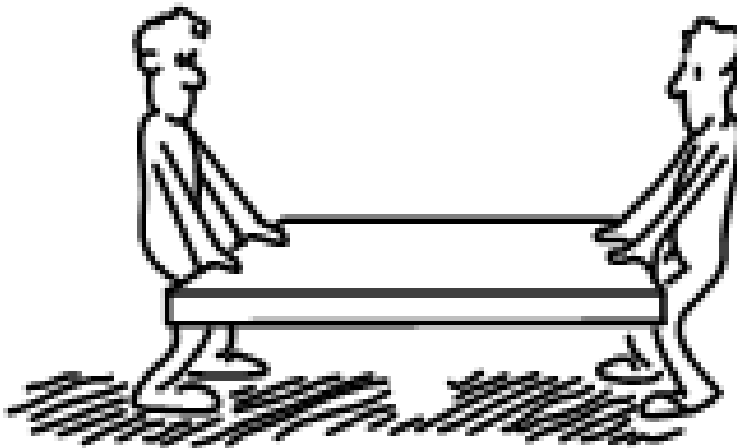
Stand close to the load with your feet apart.



# Lift it RIGHT!

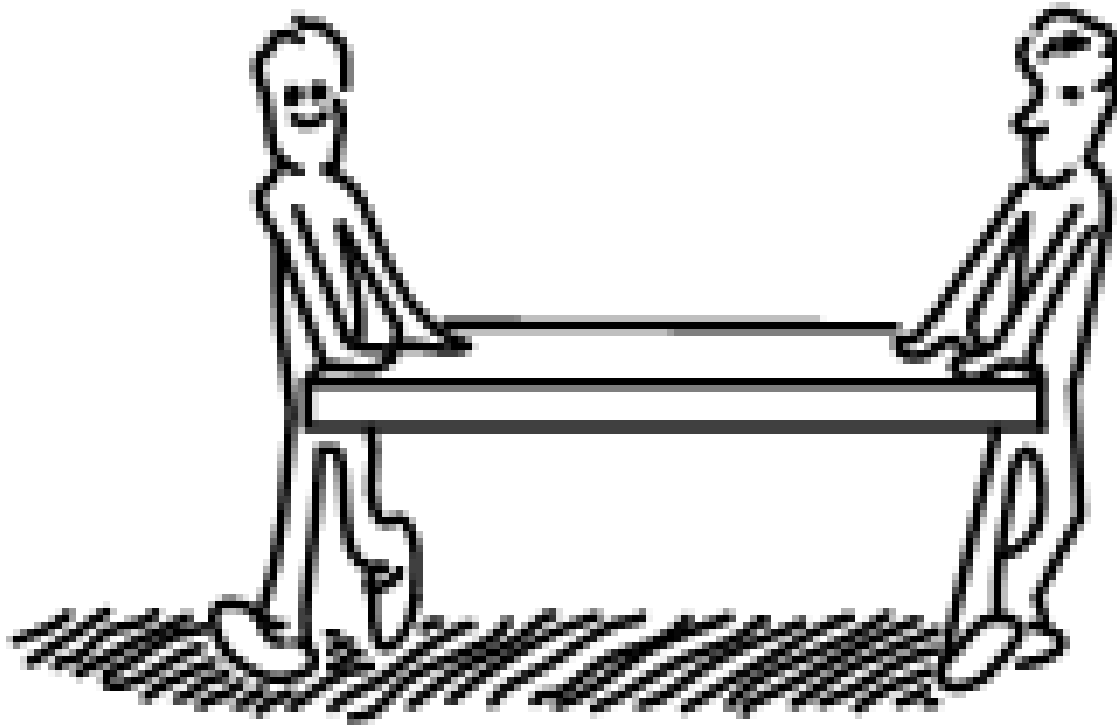


Bend your knees and hold the load firmly with both hands.



Keep your backs straight, lift by straightening your legs.

# Carry it RIGHT!



**WALK TOGETHER**

With the leader giving directions  
( for example, "Move your end to the right.")

# Things You Can Do, Exercise!



- Minimize problems with your back by exercises that tone the muscles in your back, hips and thighs.
- Exercise regularly, every other day. Warm up slowly.
- A brisk walk is a good way to warm up.
  - Inhale deeply before each repetition of an exercise and exhale when performing each repetition.

**Before beginning any exercise program, you should check with your doctor.**



# Wall slides to strengthen your muscles.

- Stand with your back against a wall, feet shoulder-width apart. Slide down into a crouch with knees bent to 90 degrees. Count to 5 and slide back up the wall. Repeat 5 times.



# Leg raises to strengthen back and hip muscles.



- Lie on your stomach.
- Tighten muscles in one leg and raise leg from floor.
- Hold for count of 10, and return leg to floor.
- Do the same with your other leg.
- Repeat five times with each leg.



# Leg raises to strengthen back and hip muscles.



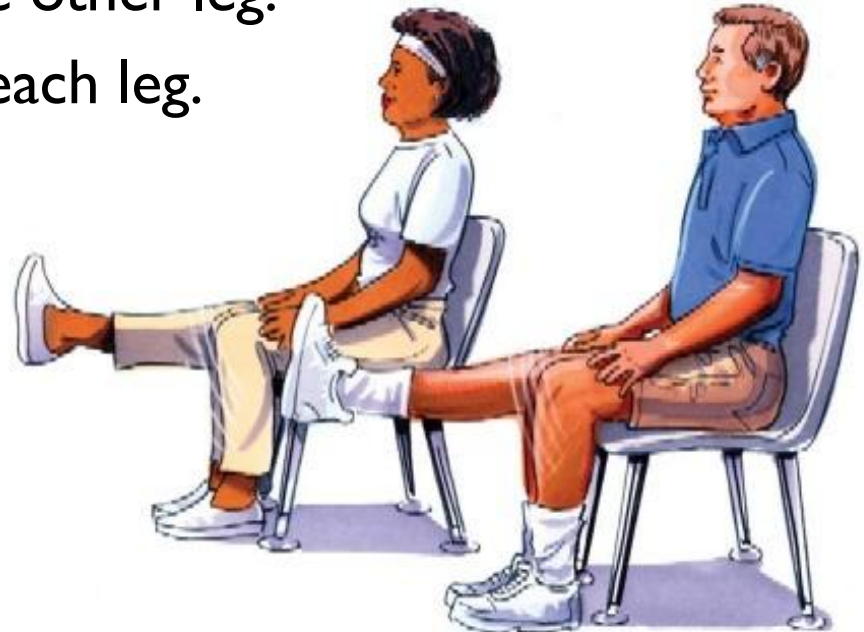
- Lie on back, arms at your sides.
- Lift one leg off floor and hold for count of ten.
- Do the same with the other leg.
- Repeat 5 times with each leg.
  - If this is too difficult keep one knee bent and the foot flat on the floor while raising the other leg.





# Leg raises while seated.

- Sit upright, legs straight and extended at an angle to the floor.
- Lift one leg waist high.
- Slowly return to floor.
- Do the same with the other leg.
- Repeat 5 times with each leg.



# Partial sit-up to strengthen stomach muscles.



- Lie on back, knees bent and feet flat on floor.
- Slowly raise head and shoulders off floor and reach both hands toward your knees.
- Count to 10.
- Repeat 5 times.





# Back leg swing to strengthen hip and back muscles.



- Stand behind chair, hands on chair.
- Lift one leg back and up, keeping the knee straight.
- Return slowly.
- Raise other leg and return.
- Repeat 5 time with each leg.





# Exercises To Decrease the Strain on Your Back.

- Lie on back, knees bent, feet flat on floor.
- Raise knees toward chest.
- Place hands under knees & pull knees to chest.
- Do not raise head.
- Do not straighten legs as you lower them.
- Start with 5 repetitions, several time a day.





# Exercises To Decrease the Strain on Your Back.

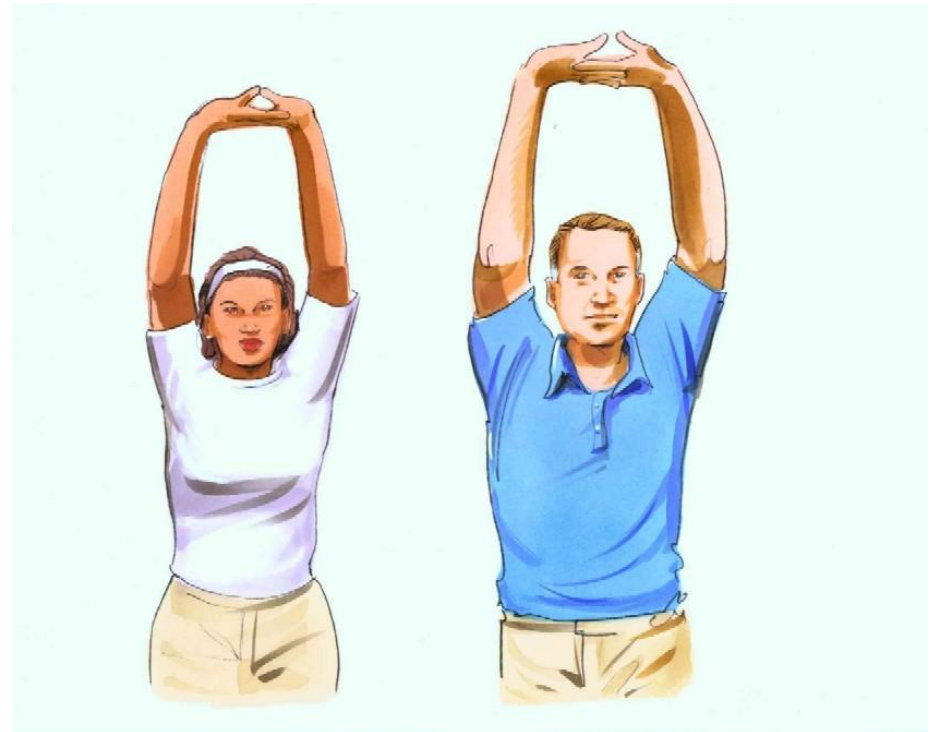
- Lie on stomach, hands under shoulders, elbows bent and push up.
- Raise top half of body as high as possible.
- Keep hips and legs on floor.
- Hold for one or two seconds.
- Repeat 10 times, several times a day.





# Exercises To Decrease the Strain on Your Back.

- Interlace fingers so palms face outward.
- Slowly lift arms above head, pushing upward (stretch will be felt in arms, shoulders, and upper back).
- Hold for 10 seconds.
- Repeat as needed.



# Take care of your back... and it will take care of you.



- **Exercise daily.**
- **Avoid Heavy Lifting.**
- **Get Help with heavy or bulky objects.**
- **If you must bend over, do it properly.**
- **Avoid twisting at the waist when carrying objects.**
- **Always watch where you're going.**



**THANK YOU**