

# **BODY MECHANICS**

**Inservice = 1 Credit Hour**

**Instructions: Please read, complete and return post test.**

## **BODY MECHANICS**

Taking care of your back is a life long project! With the prevalence of back pain at an alarming 60% among U.S. adults, preventative measures are needed. The use of proper body mechanics is an effective way to prevent further injury to your back. When incorporated into activities of daily living, body mechanics help decrease the amount of stress on the spine. Education in body mechanics is therefore, essential in prevention of back pain.

### **What is Body Mechanics?**

Body mechanics can be described as the proper or most efficient way to perform daily activities that are safe, energy conserving and help prevent the physical strains that may cause injury. The goal of body mechanics is to learn how to move the body so as to prevent further injury to the spine. Awareness of common mistakes and proper principles can only help to achieve this goal.

### **Posture**

The benefits of good posture far outweigh the ease of poor posture. Poor posture is one of the main causes of neck and back injuries. Forward head position and rounded shoulders contribute to poor posture. Any desk or computer employee has probably been guilty of poor posture at some point, and it is a hard habit to break.

### **Proper Posture:**

1. Keep bones and joints in the correct alignment, so that our muscles are used properly and efficiently.
2. Helps decrease the abnormal wear and tear on our joints.
3. Decrease the stress on your ligaments holding the spine and joints together.
4. Prevents fatigue because muscles are being used efficiently, requiring less energy to be used by the body.
5. Good posture = great appearance! (It also makes you appear taller and thinner!)

### **What does good posture look like?**

The body is straight, but not stiff and awkward. Good posture is relaxed as the ears, shoulders, hips, knees, and ankles are aligned in one straight line. Imagine an imaginary plumb line from the earlobe and the line would hang straight through the middle of the anklebone.

## RULES TO LIVE BY TO PROTECT YOUR BACK

- Never bend from the waist only; bend the hips and knees.
- Never lift a heavy object higher than your waist.
- Always turn and face the object you wish to lift.
- Avoid carrying unbalanced loads; hold heavy objects close to your body.
- Never carry anything heavier than you can manage with ease.
- Never lift or move heavy furniture. Wait for someone to do who knows the principles of leverage.
- Avoid sudden movements and sudden “overloading” of muscles.
- Learn to move deliberately; swinging the legs from the hips.
- Learn to keep the head in line with the spine when standing, sitting or lying down.
- Put soft chairs and deep couches on your “don’t sit” list. During prolonged sitting, cross your legs to rest your back.
- Your doctor is the only one who can determine when low back pain is due to faulty posture. He is the best judge of when you may do general exercises for physical fitness. When you do, omit any exercise which arches or overstrains the lower back, backward bends or forward bends, or touching the toes with the knees straight.
- Wear shoes with moderate heels; all about the same height. Avoid changing from high to low heels.
- Put a foot rail under the desk and a footrest under the crib.
- Diaper the baby sitting next to him or her on the bed.
- Don’t stoop and stretch to hand the wash; raise the clothesbasket and lower the clothesline.
- Buy a rocking chair. Rocking rests the back by changing the muscle groups used.

### Most common back problems due to improper body mechanics are:

- √ Muscle guarding
- √ Disc strain and bulge
- √ Disc herniation
- √ Acute strains and sprains
- √ Joint stiffness
- √ Postural strains and sprains
- √ Osteoporosis

## Do's and Don'ts

- Beware of heavy backpacks. A loaded backpack should not exceed 15% of a person's body weight. (No more than 25 lbs.)
- Avoid carrying everything but the kitchen sink in your handbag!
- When you sit, sit with your back against the back of the chair with your knees at hip level.
- Don't cradle the phone between your head and shoulders.
- Don't sleep on your stomach. Sleep on your back or side.
- Working at a computer can be very fatiguing. Try to take short breaks after 20 to 25 minutes – all you need is a short 1 to 2 minutes to stand up and stretch.

## Transferring of Patients

- Give only the assistance necessary to aide
- Note and protect any drainage tubes, IV's, etc.
- Transfer across the shortest distance and adjust the bed to a convenient height.
- Lock all wheels to prevent slipping
- Generally move client towards his strong side while you assist his weak side.
- Have client wear shoes for standing transfers. Avoid slippery slippers.
- Tell client what you are going to do before transferring. (Teamwork – step by step)
- Avoid false, jerky motions. Give short, simple commands – then work together. Encourage your client's progress.
- Let client see their destination during the move.
- Strap or secure the client in the wheelchair, if needed, after transfer to prevent a fall.
- Use mechanical lifting aides, i.e. Hoyer lift, when available.
- When needed – GET LIFTING HELPERS!
- Caution – Be aware that transfer methods NEED to fit the assistant and client in abilities, size or weight.

**BE SURE TO NOTIFY YOUR SUPERVISOR OF ANY CHANGES WITH YOUR CLIENT,** especially if the client was an assist and is not a total lift!!!

## **Before transferring, know your client's abilities:**

- √ **Physiological Condition** - How reliable are basic body functions (i.e. posture, circulation)?
- √ **Mobility** - Are joint motions restricted?
- √ **Strength/Endurance** - Will fatigue prevent his/her completion of a transfer?
- √ **Balance** - Does the client have a tendency to fall or lean to one side, or have muscle spasms?
- √ **Understanding** - Is client aware enough to see, hear, and follow simple commands?
- √ **Motivation** - Is the client eager and willing OR reluctant? Is pain a factor?

## BODYMECHANICS

### POST TEST

Credit = One (1) In-service Hour

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

- 1). **Body Mechanics can be described as:**
  - A. The proper way to complete your paperwork.
  - B. The proper and most efficient way to perform daily activities that are safe while preventing physical strains.
  - C. The mechanics necessary to prevent mobility.
  
- 2). **To prevent back problems you should always:**
  - A. Carry anything no matter how heavy it is.
  - B. Have your back to whatever you are lifting.
  - C. Use proper body mechanics
  
- 3). **List three (3) things that you should know about a client prior to transferring?**
  - A. \_\_\_\_\_
  - B. \_\_\_\_\_
  - C. \_\_\_\_\_
  
- 4). **Heavy objects should be held CLOSE TO / AWAY FROM your body.**

(Circle the correct answer)
  
- 3). **List three (3) things that assist with proper posture:**
  - A. \_\_\_\_\_
  - B. \_\_\_\_\_
  - C. \_\_\_\_\_