# BACK AND ERGONOMIC SAFETY FOR SCHOOL BUS DRIVERS

REFERENCE VIDEO GUIDE AND TEST QUESTIONS

## **INTRODUCTION**

Everyone is exposed to risk factors in their jobs. Some factors are obvious. You must always be focused on protecting yourself from injury. Less obvious, are risks bus drivers take in driving a school bus every day. The GOAL Of this video is to introduce preventive and effective techniques to prevent back and ergonomic injuries. Some key points:

- . Back and ergonomic injuries are cumulative. They appear over a long period of time. A major cause of back injuries are incorrect posture and mechanical techniques.
- . It is imperative that bus drivers use safe techniques while operating the school bus.
- . We all age and protecting yourself when you are younger will help guarantee you will not encounter these problems later in life.

This video will be presented in separate sequences. Each sequence will cover a different part of back and ergonomic safety.

#### 1. EXERCISES FOR SCHOOL BUS DRIVERS

- . Bending, stooping, reaching and kneeling are part of the work day for the bus driver.
- . Exercise at the start of the day, or anytime during the day, can reduce the chance of an injury, while performing these tasks. These exercises include:

A: Trunk Twists- Rotating the body at the waist from side to side to limber up muscles used in up and down movements such as bending.

B: Leg Stretch- Leaning against the bus and extending the legs out and stretching back and lower leg muscles. This is done because drivers go up and down steps when loading and unloading the bus. It reduces the chance of a muscle pull and leg strain.

C: Head Roll- The driver rotates his head to both the right and left side. This is good for reducing head and neck strain. Drivers who spend many hours each day siting in a fixed position need to continuously limber up their neck muscles.

D: Arm Roll- Arms extended out at sides. Rotate out, up, forward and down motions. Good for releasing arm and shoulder stress.

Exercise is vital and it is a mistake to ignore. Drivers who spend long hours each day driving the school bus, doing pre-trip inspections and taking care of Special Needs students have to make sure they are not stessing their bodies. The prime benefactor of good health is you, the bus driver.

#### 2. AVOIDING COMMON BACK AND ERGONOMIC INJURIES

Most back and ergonomic injuries are the result of not knowing the proper practices of back and ergonomic satiety.

- . Deck lid opening uses arm motion. A tall person can open the deck lid from the center where the handle is located. A tall person can also close the deck lid from the center. A shorter person must close the deck lid by moving to the side, next to the bus, and close the deck lid where they can safely reach it.
- . Emergency door latches can be difficult to open. Use both hands to open the latch to alleviate stress and avoid repetitive hand motion damage.
- . Tire checks should be done by bending knees and not by bending at the waist while standing. This will avoid stress to lower back.
- . Inspecting windshield by using the bumper foothold and standing straight with the wiper blade base as a hand support and to help you stay balanced. This will avoid back, neck and arm strain.

#### **INSIDE THE BUS**

. Window opening and closing should be done with your body close to the window so your arms can easily move the window up and down and your back and arms will not be strained.

. Opening the hatch can be done by reaching up and pushing upward on the hatch. If you are not tall enough, you need to stand on the seat. One foot should be placed on the left and right seat leaving you in the center of the isle. Now you are tall enough to open the hatch.

## 3. AVOIDING BACK AND ERGONOMIC STRAIN WHILE DRIVING THE BUS.

Drivers expose themselves to constant stress of their neck, shoulders, back, arms and hands. By following the principals of good body positioning, you may be able to avoid serious back and ergonomic injuries.

PROPER POSITIONING OF SEAT AND THE ROLL IT PLAYS IN REDUCING ERGONOMIC INJURIES.

A: Seat Adjustment

- 1. Steering wheel tilted.
- 2. Arms slightly bent to grasp steering wheel.
- 3. Back is straight against seat and will not be stretched forward when using push pull or hand over hand techniques when turning the wheel. Hands, arms, neck, shoulders and back should all be working comfortably.

# WHAT HAPPENS WHEN DRIVERS ARE NOT SEATED CORRECTLY.

1. Seat is adjusted to low or high

- 2. Arms tend to be positioned straight out.
- 3. Turning techniques require driver to stretch their back.
- 4. Trying to use mirrors will become extremely difficult.

By not using proper seating techniques will cause cumulative stress on back, neck, shoulders arms and hands over a period of time. Correct posture and seating adjustment will help to avoid back and ergonomic injuries over years and thousands of miles of driving.

# 4. SAFETY TIPS FOR DRIVERS WITH SPECIAL NEEDS STUDENTS ON THE BUS. Moving wheel chair onto lift.

. The driver should stand in front of the wheel chair with legs bent and back straight. Unlock wheel chair brakes and push chair onto the ramp using your legs for power not your back. Lock brakes.

# Tie down techniques.

- . Bend legs, place one knee to ground and keep your back straight.
- . Adjust the tie down device to the chair and pull the slack out of the tie down strap. This will reduce continued ratcheting to tighten. It will also reduce repetitive hand motions. Check to make sure chair is locked.

## **Reminder:**

Please follow the policies or suggestions of your school district regarding back and ergonomic safety. Your health is your most important concern. Protect it now and you will have a much better chance of staying healthy as you grow older.

# TEST QUESTIONS

1. Regular exercise can reduce the chance for a back injury.
TRUE
FALSE
2. Stretching your back while driving keeps you loose and relaxed.
TRUE
FALSE
3. Sore muscles means you're working too hard.
TRUE
FALSE
4. If you are too short to close the deck lid, you should jump up, grab the lid and pull it down
TRUE
FALSE
5. If you don't have any aches or pains at age 30 it means you should'nt have any at age 60.
TRUE
FALSE
6. The prime benifactor of good health is you.
TRUE
FALSE

7. This is the correct way to tie down a wheelchair Bend legs, place one knee to ground and keep your back straight.
TRUE
FALSE
8. Having your arms stretched out and hands on the steering wheel keeps you more alert to avoid an accident.
TRUE
FALSE
9. Pulling the slack out of a wheel chair tie down cuts down on repetitive hand motion.  TRUE
FALSE
10. Your health is your most important concern.
TRUE
FALSE

# **ANSWER KEY**

1. TRUE

2. TRUE

3. FALSE

4. FALSE

5. FALSE			
6. TRUE			
7. TRUE			
8. FALSE			
9. TRUE			
10. TRUE			