Injury Prevention: The Back

Back injuries and back pain are common health problems in the agriculture sector. Over 1 million back injuries are sustained in the workplace each year, and agriculture is in the top 5 occupations for back injury resulting in days away from work.

Preventing Injury

According to OSHA, back pain is one of the leading causes of lost time at work and individual suffering. If steps are not taken to maintain a healthy back, the pain can become long-term and disabling.

Most back pain is caused by overuse or straining of the muscles and ligaments. Back pain can usually be prevented with safe work practices, stretching and strengthening activities. (OSHA)

There are several risk factors that can lead to increased chance of back injury on the worksite. Reducing these risk factors will reduce the chances of a worksite back injury

The most common back injury risk factors include:

- Awkward posture
- Overexertion
- Repetition

Awkward Posture

Posture is the position in which a person holds their body when standing, sitting, or lying down.

“Your body posture determines which joints and muscles are used and the amount of force that is generated. Whether standing or sitting, there is a neutral position for your back. Postures that differ from the neutral position increase stress on the back, especially when combined with other risk factors” (OSHA).

Avoid:

- Strenuous activity while the body is in a twisted or bent position
- Repeated bending, twisting, and reaching
- Bending forward while lifting

Reduce Awkward Postures by:

- Having work station at waist level to avoid repeated bending and twisting
- Use dollies, carts, skid loaders, tractors, and trucks to handle heavy materials.
- Use correct lifting techniques
- Move your feet when moving materials to avoid twisting your back
- Ask for assistance when lifting to help divide the load.
- Reposition the body to avoid holding a bent, stooping, twisting position for an extended period of time.
Back Injury Prevention

Proper Posture and Body Mechanics

Farmers, ranchers, and agriculture workers spend hours of their day standing or riding equipment. The way in which you train your body to sit and stand is very important for maintaining good back health. The position that you hold your body upright while sitting, standing, or lying down is called posture.

**Good posture** is training your body to sit, stand, and lie down in a way that gravity is putting less stress on your body. When you have proper posture, your body is aligned so that your spine can easily and efficiently support your body weight. Having improper posture puts strain on your muscles, tendons, and ligaments to support your body because it is not properly balanced.

### Sitting Properly

- Sit in a chair that allows you to rest both feet flat on the floor while keeping your knees level with your hips. Use a footstool if your feet don’t reach the floor.
- Sit back in your chair and use a rolled towel or small pillow to support your lower back’s curve if needed.
- Do not cross your legs. Your ankles should be in front of your knees.
- Keep your upper back and neck comfortably straight.
- Keep your shoulders relaxed, not elevated, rounded or pulled backward.

### Standing Properly

- Stand straight and tall with your shoulders pulled backward.
- Pull in your abdomen.
- Keep your feet about hip distance apart and do not lock your knees.
- Balance your weight evenly on both feet.
- Let your hands hang naturally at your sides.
- Keep your head level. Your earlobes should be in line with your shoulders. Do not tilt your head forward, backward or sideways.

**Good Seated Posture**

![Diagram of good and poor seated postures](Photo Credit: OSHA)
Correct Lifting Techniques:

- Position your body directly in front of the object.
- Bend at your hips and knees so that your legs, not your back, perform most of the work.
- Keep your back upright and straight throughout the lift.
- Turn your feet toward the destination rather than twisting the trunk when lifting heavy loads.
- Keep the object as close to your body as possible.
- Lift as smoothly as possible.
- Throughout the move, the load should be as balanced and evenly distributed as possible.
- Mechanical aids (lift tables, hoists, carts, and forklifts) are safer than manual lifting for heavy items.
- Lifting above head height presents a high risk of injury and puts increased strain on the back.

LIFTING DO’S & DON’TS

- **DO** LIFT AS A TEAM
  
  Do lift bulky or heavy loads as a team. Doing so is smart and the safe way to work.

- **DO** TURN WITH LEGS
  
  Do move your legs and feet when turning or lowering the load. Avoid twisting at your waist.

- **DO** USE YOUR LEGS
  
  Do lift the load using your powerful leg and buttocks muscles. Your feet should be wide apart, head and back upright. Keep abdominal muscles tight and the load in close.

- **DO** USE EQUIPMENT
  
  Do use equipment like hand trucks, dolly’s, or forklifts to do the heavy lifting. It’s much less work and less risk of injury.

- **DON’T** LIFT BULKY LOADS ALONE
  
  Don’t lift bulky or heavy loads alone. Doing so puts great stress on your low back muscles and spine.

- **DON’T** TWIST WHEN LIFTING
  
  Don’t twist when lifting, lowering, or carrying any load as this increases your risk of back injury.

- **DON’T** USE YOUR BACK
  
  Don’t lift the load with your rear end high and your lead low. Use your leg muscles, not your weaker low back muscles.

- **DON’T** LIFT HEAVY LOADS
  
  Don’t lift heavy loads when you can use equipment. It is less work and less stress on your low back.