5-minute safety talk

Manual Operator Risks

Many employees can cite a specific instance when they performed a task that wrenched their backs or pulled muscles that even years later may still cause discomfort. Others feel a twinge now and then and chalk it up to age. The fact is lifting, lowering, carrying, pulling, pushing or reaching incidents, as well as repetitive everyday work tasks, may cause manual-handling injuries and illnesses.

Employees may avoid these injuries if they know the safe and proper way to perform the activities and recognize their own physical limits.

Know your limits

In many cases, injuries can be reduced by changing the position in which employees work. Cross-training employees is recommended for those who work at repetitive motion jobs so they can switch jobs with each other at set intervals. Taking breaks at specific times is also encouraged to help reduce strain, injuries and illnesses.

Heavy loads add more strain because of their weight, bulk or difficulty in handling. Employees who lift packages should know the general weight of the object inside and where the center of gravity is so they know how to grip the item. They should also know when to get help.

Hard and fast rules about the weight employees can lift are difficult because employees differ in size and strength. Before considering a lift, do a job safety analysis of the task and consult the Application Manual for the Revised NIOSH Lifting Equation.

If mechanical aids such as fork lifts or slings are not available or appropriate for a specific job, split loads into smaller, lighter packages to make the job safer. Set limits on how much a single employee can move.

It is important to lift with the legs and get as close as possible to a load when carrying heavy loads because you may not always be able to keep your back straight, which can cause injury. Employees in tight or awkward areas could injure themselves more if they try to keep their backs straight when circumstances work against it.

Employees should push loads as much as possible rather than pull them. The reaching motion of pulling exposes the knee caps, as well as the lower back and shoulders, to injury. When pushing, workers can get their whole body behind the material and use their legs for strength and leverage.

Shelves or workbenches should be adjustable to cut down on reaching or awkward bending. Poor posture or twisting can cause back injuries. The safest and most convenient height to manipulate loads will vary with the height of each individual.

Trade knowledge for power

Lifting is the leading cause of most back injuries. Employees need training and information to handle loads properly. They should be educated about the risk they may be open to if they do not perform their task correctly.

Let machines do the work

John Deere Works in Davenport, Iowa, redesigned a job in which workers used to push 800-pound baskets full of parts on roller conveyors. After an employee expressed concern, management stepped in. “What I did was automate it,” said Christopher J. Cox, Manager of Environmental Health and Safety at the Waterloo, Iowa plant. “Now the workers simply press a button and the basket takes off with no pushing.”

Whenever possible, engineer manual handling out of a process or use administrative controls to change or lessen the task. When you must push, pull, reach or lift, remember to work together and use safe practices and work methods.