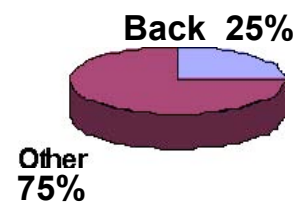


BACK INJURY PREVENTION IN CONSTRUCTION

Construction work puts physical stress on the body. Various studies have shown that the construction trades have a higher incidence of back injuries and muscle strains than many other occupations.

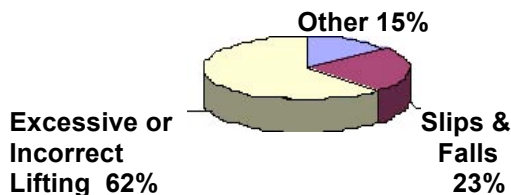
INJURIES

Over the years, low back injuries have consistently accounted for about 25% of all the lost workday injuries in the construction trades according to the Bureau of Labor Statistics. Pain in the low back and joints is a major factor in forced retirement from the construction trades and in workers seeking less demanding occupations. Such changes are often accompanied by a serious reduction in living standard.



Construction Lost Workday Injuries

INJURY CAUSES



Causes of Back Injuries

In construction, about half of the low back injuries are attributed to lifting excessive weight or lifting incorrectly while roughly 25% are the result of slips, trips and falls. Workers lifting and carrying equipment or materials can be injured when they use improper techniques, twist their bodies, stand in awkward positions, or try to handle heavy loads without help. Most back injuries are the result of everyday wear and tear rather than a single traumatic event.

The cause is generally not a single lift but damage done over time. Back injuries also result from slips, trips, and falls caused by bad weather or poor housekeeping. Repeated twisting, awkward postures, heavy lifting, and prolonged vibration can all contribute to back pain and injury. Unfortunately, once back pain is experienced, the chances of it recurring increase greatly.

BACK INJURY PREVENTION IN CONSTRUCTION

Page 2



INJURY PREVENTION PROGRAM

To reduce back injuries on the job, a prevention program in ergonomics is necessary, covering topics such as body posture, proper lifting techniques, exercises, and housekeeping.

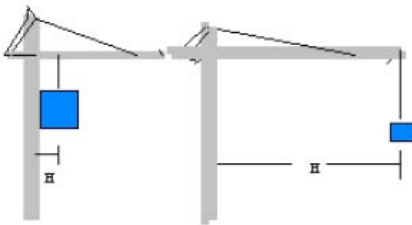
LIFTING CAPACITY

Lifting Capacity

Lifting a weight that is too heavy, lifting in an awkward position, twisting your body when lifting or doing excessively heavy work are all common causes of low back problems. The following lifting models illustrate the need for good work technique.

A Tower crane's lifting capacity is reduced the further the load is away from the mast. Our lifting capacity is also reduced the further a load is away from our spine.

H = The horizontal distance
When H is increased, the crane's capacity to lift the load is decreased.



A Tower crane's lifting capacity is reduced the further the load is away from the mast. Our lifting capacity is also reduced the further a load is away from our spine.



BACK INJURY PREVENTION IN CONSTRUCTION

Page 3

LIFTING GRIP

To ensure solid contact when lifting heavy objects, use your entire palm, not just your fingertips.

UNLOADING

1. Lower the load, maintaining the natural curve of your back.
2. Push the load into place.
3. When lowering a load onto a deep shelf, put it on the edge of the shelf first and then push it.

CARRYING

1. Keep your low back in its normal arched position and use your leg muscles to lift.
2. Maintain a good grip and keep the load close to your body.
3. Do not let the object obstruct your vision.
4. Do not twist your torso. Move your whole body as one unit.

PROPER LIFTING

Size up the load and make sure your path is clear.

1. Get help as needed.
2. Get as close to the load as possible.
3. Tighten your stomach muscles as the lift begins.
4. When lifting, keep your low back straight and use your leg muscles to lift.
5. Use your feet to pivot. Move your whole body as one unit to turn.
6. Don't twist your back.
7. Lower the load smoothly, maintaining the natural curve in your low back.





TOOL BOX TALKS



BACK INJURY PREVENTION IN CONSTRUCTION

Page 4

TRANSFERRING WEIGHT

1. Pull the object towards you while transferring your weight to the lift side.
2. Lift only to the level required.
3. Shift your weight to the other leg while pushing the object into position.
Do not twist

EXERCISE

To protect your spine, the muscles supporting your back must be both strong and flexible. Construction work strengthens some muscles while others that are not being used become shorter and weaker, creating a muscle imbalance. A regular exercise program can help to keep muscles balanced and reduce the risk of low back injury. A pre-work stretching program is highly recommended. Warming up prepares your body for the physical work ahead and helps reduce the risk of injury.

A good exercise program should include both stretching and strengthening exercises. The three essentials are:

- Warm-up
- Workout
- Cool down

Remember; check with your doctor before starting any exercise program.