



why

WHY IT MATTERS

Back injuries are some of the most insidious injuries that plague the workplace. They can occur at almost anytime and often without warning, and the recovery process can be long and involved, translating into missed work, permanent discomfort and even surgery. The reason back injuries can occur with so little warning is because they are often the result of many smaller

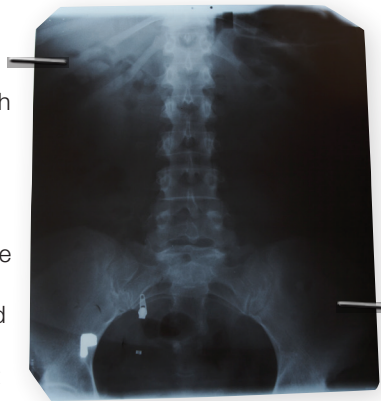
strains (or micro-traumas) occurring over a period of time due to repetitive motions and incorrect lifting techniques.

Back injuries can be a trial for both the employee and the supervisor, and every precaution should be taken to ensure the chance of injury is minimal so that the potential for injury is significantly reduced.



IMPORTANT FACTS

Back injuries are a subgroup of musculoskeletal disorders (MSDs), which the U.S. Department of Labor defines as injuries or disorders of the muscles, nerves, tendons, joints, cartilage and/or spinal disks. MSDs are rarely caused by a single incident, but rather are the result of years of repetitive micro-traumas. According to the National Institute for Occupational Safety and Health, indirect and direct costs associated with occupational back injuries accumulate between \$24-64 billion of expenses annually.



Each year, there are approximately 50 reported lifting-related injuries at NASA, occurring in a wide range of activities and operations. Countless others go unreported as chronic back pain or discomfort, and many may still result in back injury. Bad posture, incorrect lifting techniques, lifting excessively heavy objects, using repetitive motions, twisting and overreaching can all contribute to back injuries. Some of these issues can be addressed by stretching, lifting with a buddy or using a tool to lift the object. Others require a redesign of the workplace in order to minimize the amount of strenuous lifting, twisting or repetitive motions.

To address some of these issues, take a closer look at your workplace. Could it be redesigned to become

more efficient and safe? Are there repetitive motions that could be avoided by rearranging where things are located? Look for objects that are used frequently that are stored too low (such as on the floor) or too high (above your shoulders), which could cause strain or overreaching. Objects that are moved frequently might be stored on a wheeled cart to avoid repetitive lifting.

Likewise, when you go to pick up an object, make sure that it does in fact need to be moved, and that moving it does not require additional tools or machinery, or more hands to help with the load. If you must move an object, make sure to hold it close to your body and lift with your knees. Incorrectly lifting an object can put over 1000 pounds of additional pressure on your spine. You should try to lift within your "power zone," the area between your mid-thigh and chest (similar to the baseball strike zone), where your arms and back use the least amount of effort to carry an object.

Changes to your workplace and lifting techniques now can prevent serious back injury or pain in the future. If you do experience back pain or aches, you should be even more careful when lifting.

facts



checklist

LIFTING CHECKLIST

- Do you really need to move this item?
- Is there a way to move the object without manually lifting?

IF YOU MUST MOVE THE ITEM MANUALLY

- Does the lift require one or more employees to assist?
- Can the lift be broken up into several lighter lifts (i.e., moving smaller pieces separately to reduce the weight)?
- Can the workplace be altered to make this move more efficient and/or safe?
- Have you stretched or warmed up your muscles recently?
- Is this item already in your power zone (or is it too low or too high)?
- Keep the item close to your body to avoid the fulcrum effect.
- Turn with your feet, do not twist with your back.
- If you are lifting with a partner, communicate!

WORKPLACE CONSIDERATIONS

- Could your workspace be redesigned to become more efficient and safe?
- Could rearranging things remove some repetitive motions?
- Are objects stored too low (on the floor) or too high (above your shoulders)?
- Could objects be stored on a wheeled cart to avoid repetitive lifting?
- Remember to get up and stretch.
- Backache is not normal, and should not be ignored.

