According to OSHA, back injuries are the Number One workplace safety problem. According to the Bureau of Labor Statistics, more than one million workers suffer back injuries each year, and back injuries account for one of every five workplace injuries or illnesses and one fourth of compensation claims. https://www.osha.gov/dts/osta/otm/otm_vii/otm_vii_1.html

While OSHA does not have any written rules to follow to reduce back injuries, they do have several recommendations as shown in OSHA Fact Sheet No OSHA 93-09 which can be viewed at the website shown above. Further there are a number of places that make general recommendations that are mostly common sense. At Steward Observatory we recommend all employees follow proper lifting and carrying techniques to help reduce the number of back injuries.

Always wear the proper personal protection for the job. When lifting or carrying heavy equipment, wear sturdy safety shoes and gloves. A hard hat and eye protection may also be required. Special lower back support belts may be necessary when lifting however, back belts are not a final solution.
For more information see https://www.cdc.gov/niosh/docs/94-127/.

The process of lifting something properly involves several considerations.

1. Stretch prior to lifting.

2. If the material is too heavy, get help. Tip the load to see how light or heavy it is before attempting to lift it. If the load is too large to grip firmly or comfortably, it is too large to carry alone. Do not attempt to lift any load over 50 pounds alone.

3. Check the load for splinters, staples, loose strapping, or other hazards that could injure the hands or cause a tripping hazard.

4. When preparing to lift, place one foot alongside the object and one foot behind it. Keep the back straight. Grip the load firmly with the palms of the hand.

5. Ensure your body weight is centered over the feet. Draw the object close if necessary. Lift the object straight up, using the legs and keeping the back straight.

6. When turning while carrying a load, shift the feet rather than twisting the body. Feet should be pointed in the direction of travel before lifting the object.

7. Do not try to lift an object above waist level in one motion. Set the load on a table or bench, then adjust the grip to lift it higher.

8. Before carrying a load, check the intended route for tripping hazards. Also, check doorways to make sure there is enough clearance.

9. Use just as much caution when carrying a light load.
10. When carrying long loads, carry it on the shoulder, keeping the front end high. If two or more people are going to carry a load, decide ahead of time how it is going to be done.

There are other causes of back injuries besides improper lifting. For example, back injuries can also be a result of improper work motions such as continued bending over or twisting and turning. As a normal rule it is best to perform work while standing or sitting erect. In some cases, this may require longer handled tools, or other specialized equipment. If you feel strain on your back as a result of working in an unusual position or with unusual motion, discuss the situation with your supervisor and/or Safety Representative.