



Bungee Cord Safety

It's a common, everyday device, inexpensive and easy to use. It's used in businesses, homes, and leisure activities, but it possesses an inherent danger, one that has caused injury, and in some cases, permanent vision loss. What is this seemingly harmless device with a potential to cause lasting damage in the blink of an eye? It's a bungee cord!

Bungee cords are made of elastic material with metal J-shaped or S-shaped hooks on each end. They're used to tie down or secure equipment, restrain cargo, act as barriers, hold items in place, and can be conveniently locked or fastened to another structure. Bungee cord use is particularly attractive since the hooks are versatile connectors that can be easily applied with one hand. The usefulness of bungee cords is well known, but their potential for injury is not.

One of the characteristics of a bungee cord is its stored energy which can be suddenly released. The heavy elastic cords from which bungees are made contain tremendous force when they recoil, particularly when they're stretched beyond their recommended limits. This sudden release of stored energy results in a high speed flailing hazard when:

- the hook pulls out of the user's hand as it's being stretched into place the hook disengages from the attachment point
- the attachment structure fails
- the hook straightens out
- the cord breaks
- the hook detaches from the cord

In each of these situations, the free end of the bungee cord can recoil at speeds of up to 60 miles per hour and produce significant injury or damage upon impact. The American Medical Association has called for warning labels to be placed on bungee cords, including information about the deterioration of the cords, which can cause them to snap unexpectedly. Cracks in the cords significantly increase the failure risks of the bungee.

The majority of bungee cord accidents involve the eye and are becoming an increasingly common cause of both severe and penetrating eye injuries. In one hospital study, more than half the patients seen in the emergency room for bungee cord-sustained eye injuries required hospitalization for treatment of their injury. Injuries included bleeding within the eye, lacerations to the eye, traumatic cataracts, and tearing or detachment of the retina from the back of the eye. Most victims with damaged eyes had a mild-to-serious loss of vision, some had no useful vision, and some had injuries that were so severe that their eye had to be surgically removed.

How can bungee cord injuries be prevented? Eye doctors who treat people with eye injuries recommend replacing bungee cords with less volatile devices. Possible alternatives to secure equipment are ropes, buckled nylon bands or industrial plastic shrink-wrap. If bungee cord replacement is not possible, use appropriate, face or eye protection, even for the few seconds it may take to attach a bungee cord.



If workers will be allowed to use bungee cords in the course of their job, they should first receive instruction in the safe use, and the consequences of misuse, of bungee cords. They should be trained to use bungees with caution, including:

- using extreme caution when stretching the cord over a load
- securing hook ends carefully
- never extending the cord beyond its capacity of length or load
- keeping the face and other vulnerable body parts away from the cord's rebound path never using bungee cords to hold a surface which reacts to wind or air movement

Bungee cord safety procedures should be strictly enforced or, in the blink of an eye, an individual could lose an eye.

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