

Chainsaw safety requires paying attention

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Whether an industry professional or homeowner who rarely uses a chainsaw, use of personal protective equipment when running a saw is essential. Proper PPE can significantly reduce the chances of a severe injury or even death.

More than 36,000 injuries associated with chainsaws happen every year in the United States. On average, these injuries require 110 stitches at a cost of \$12,000 per injury before factoring in losses in production and time. In Alabama, state agencies have reported more than 70 chainsaw-related incidents over the past five years.

PPE worn while operating a chainsaw helps protect the areas of the body at greatest risk. The left leg, specifically the upper thigh, and the back of the left hand are the two areas most prone to injury. The head and upper torso are both at risk from falling debris and chainsaw injury from rotational kickback.

Essential PPE for chainsaw operation includes a hard hat, cut-resistant safety chaps, and eye and hearing protection. The possibility of injury is so great that even those assisting the chainsaw operator should wear the full recommended protective equipment.

Head protection

A hard hat protects the head from falling debris, such as limbs and branches, and from injury due to hits against low-hanging

objects. The shell of the hard hat is typically made of a high-density thermoplastic that is durable and resistant to falling debris and impacts.

A hard hat should have three components: shell, suspension and chin strap. These components must be properly functioning, free of damage or defects and properly worn by the user. Do not drill ventilation holes into the shell of a hard hat that was not manufactured with them. Some hard hats are designed by manufacturers to have ventilation ports; however, there is some risk of small debris entering through these areas.

Inspect your hard hat before each use. Cracks or other physical damage can reduce effectiveness. Over time, excessive sunlight exposure, chemical exposure and age can cause the shell to become brittle and unsafe. A simple method to test the elasticity of the hard hat is to push in on the exterior sides; the hat should compress inward and quickly expand to its original form. If this doesn't happen or if the hard hat begins to make a popping and cracking sound or develops a crack, replace it.

Other warning signs of a damaged hard hat shell include fading color or chalky appearance. Also inspect the suspension straps for cut or frayed straps or damage to the connections to



Photos Submitted

Wear gloves when working on chainsaws and Hard hats should be updated every five years. **Below:** Hard hats protect the head from falling debris.

the shell.

Replace a hard hat five years after the stamped manufacture date or sooner if it is damaged or experiences signs of wear as outlined above. All hard hats will come with the date of manufacture stamped inside. This date is displayed by two dial-like symbols

with an arrow inside pointing to a number. The first dial points to the month and the number alongside the arrow designates a year. The second dial arrow points to a number specifying the date.

Position your hard hat squarely on the top of your head, facing forward. Keep

the space open between the hard hat shell and the suspension. Do not store items inside the hat or wear a baseball cap — this could cause a head injury when the hard hat compresses when struck by a falling object.

An often-unused component of the hard hat is the chin strap. A hard hat will come either with the chin strap permanently attached or with slots for a chin strap attachment. Chin straps help secure the hard hat to your head in situations where you are leaning over, in high winds or in an elevated area.

Leg protection

Always wear leg protection when operating a chainsaw. The most common form of leg protection is cut-resistant safety chaps, commonly referred to as chainsaw chaps. It is important to understand that this style of chaps is not cutproof; it does not

eliminate all risks to legs but does reduce the potential for injury.

Chainsaw safety chaps are composed of a rough exterior layer and an interior layer composed of long strands of nylon, polyester, Avertic or Kevlar which extend the length of the chap. When a moving chain contacts the chaps, it easily cuts the exterior layer while the inner strands pull out and tangle the drive sprocket. This quickly and effectively slows or completely stops the moving chain.

Chaps come in three styles: apron, calf wrap and full wrap. Apron styles provide protection from the hips down to two inches past the top of the boot minimum on the front side of the leg only. Calf-wrap chaps provide protection in the same areas as apron styles plus cover the entire calf. Full-wrap chaps provide protection around the

See **SAFETY**, 16C



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