

# Wood Working Injury Trends

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Machine and woodworking shops are present in many schools throughout Colorado. The classes can teach valuable skills students will use well into adulthood. However, the equipment located within these shops has the potential to cause serious injury. According to the National Electronic Injury Surveillance System (NEISS) database, about 39,750 injuries annually on table saws alone.

Near miss incidents in shops can be indicators that safety processes need to be reviewed. Nothing can be more important, or more tragic, than the human aspect of an accidental injury or loss. To reduce the frequency and severity of both shop injuries, and the School District's liability, it is important that all students and staff recognize their obligation to conduct themselves in a safe manner while working with woodshop equipment. Injuries due to machine use in industrial arts, wood shop, automotive shop, theater tech and other similar types of educational programs are a serious issue. Many of the ways to prevent such injuries are by following basic safety rules. Failure to follow those rules will greatly increase the chance of injury.

## Claims Arising from Shop Accidents

In three recent school incidents, students experienced significant injuries while operating a table saw. The commonality of all three incidents highlights inherent "table saw" dangers.

In the most recent incident, a student was using a table saw to make several cuts for an offsite construction project. The saw blade came into contact with the student's thumb and little finger, causing amputation and severe lacerations. Observations of the table saw showed the blade guard was installed on the saw, but not correctly placed over the cutting area. There was no teacher supervision during this activity. The investigation showed that the student was taught how to operate the wood table saw safely and even passed a test. It appeared that the emergency shut off switches were available and operational.

In a separate incident, prior to using woodshop equipment, the student was administered a safety test to verify that he had been properly instructed in safety protocols and that he retained this knowledge. The student attempted to cut a 9-inch piece of wood with a table saw even though students were taught never to cut any piece of wood under 10 inches. The student was using his left hand to keep pressure against the wood. As the student began to cut the short piece of wood, it got into a bind and kicked backwards. As the wood kicked backwards, his left hand continued forward and came in contact with the saw blade. The student suffered a severe laceration to his hand, tendons, and ligaments, requiring 10 stitches and physical therapy after surgery.

Another incident involved a student using a table saw to cut wood for a theater set. The safety guard was not attached on the saw blade, and the student sliced his hand with the blade. An investigation of the matter revealed that the safety guard was missing. Someone had taken it off the week prior to the incident. The teacher could not find the screws, so she had left the guard off.

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### How Do Accidents Happen?

It has been identified that the immediate causes of an accident generally are due to circumstances immediately preceding the contact. Frequently they involve substandard practices and substandard conditions that lead to the occurrence of an accident.

<b>Substandard Practices</b> could include but are not limited to:	<b>Substandard Conditions</b> could include but not be limited to:
<ul style="list-style-type: none"> <li>• Operating equipment without authority</li> <li>• Making safety devices inoperable</li> <li>• Improper positioning for task</li> <li>• Inattention</li> <li>• Taking chances</li> <li>• Horseplay</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate guards or barriers</li> <li>• Inadequate or improper protective equipment</li> <li>• Defective tools equipment or material</li> <li>• Poor housekeeping</li> </ul>

Just as it is important to consider substandard practices and conditions, it is also important to think about the personal factors and environmental factors.

<b>Personal Factors</b> include:	<b>Environmental Factors</b> include:
<ul style="list-style-type: none"> <li>• Inadequate capabilities</li> <li>• Lack of knowledge</li> <li>• Lack of skills</li> <li>• Stress</li> <li>• Improper motivation</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate supervision or supervision</li> <li>• Inadequate maintenance</li> <li>• Inadequate tools, equipment, materials, wear and tear, abuse or misuse</li> </ul>

Although these factors are not the origin of substandard practices and conditions, they can start or exacerbate a sequence of events that can ultimately result in injury to the user.

### Insurance Coverage

In the event of a claim resulting from student injury, the Member's School Entity Liability Coverage Form would provide for defense and indemnification of the Member and other insured's that might be named.

Coverage is subject to policy terms, limits, deductibles, and exclusions. All claims are reviewed on case-by-case basis. As always, feel free to reach out to CSDSIP's Risk Programs Team with specific coverage questions.

### How Do We Help to Avoid Accidents?

The risks and hazards are numerous with the types of equipment found in industrial arts. Safety must be a priority in the courses that require the use of such equipment. There is no magic procedure that 100% prevents injuries. Schools must provide adequate training to students on the equipment, and students must be familiar with the shop safety rules and strictly follow the rules. Review General Safety Rules with all shop staff before the beginning of the year.

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Shop teachers should:

- 1) **Provide** written curriculum to the students on the safe use of all equipment in the shop.
- 2) **Test** the students and require a passing grade (100%) before use of the equipment.
- 3) **Keep** the curriculum and test results on each student for at least two years.
- 4) **Never leave students unattended.**

Click here to view [General Safety Rules](#). For more information on shop safety inspections click here for [Industrial Arts/Shop Checklist](#). Please contact CSDSIP's Risk Control Department for further information.