



# CompWest Loss Lessons: Pressure Powered Nailing Tools

## True Story

An employer had an exemplary safety record except for injuries caused by pneumatically-driven nailers (nail guns). Despite implementing numerous controls to combat this injury potential, including organizing the work area, installing ergonomically optimal work surfaces, assuring safety mechanisms were in place and providing both classroom and on-the-job training, accidents involving nail guns continued to occur – which included hand, head, leg and feet injuries.

Unfortunately, the employer was experiencing more than five accidents per year and a critical injury was imminent. While using a nail gun, an employee was hit by a ricocheted nail. The nail caused significant injury to the employee. Emergency services transported the employee to the hospital where the individual was admitted and treated.

## Lessons Learned

The employer thought they had taken ample measures to ensure safe nail gun operation in the shop. A thorough investigation denoted the following substandard controls:

- Frequency of small accidents and near misses were not effectively contemplated
- Safety training was not comprehensive
  - Nail gun manufacturer’s safe operating instructions were not included as part of the training
- Employees, specifically new hires, were not assessed on nail gun use
- Accident investigations were not thorough enough to reach the root cause of accidents
- The lumbar quality was not considered
  - “Blow outs” can occur when a nail is placed near a wood knot
  - Knots include a change in wood grain which creates both weak and hard spots that can change nail direction

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## Prevention Tips

Consider the following tips to reduce or eliminate nail gun injuries:

### **Conduct a Job Hazard Analysis (JHA)**

- Establish nail gun work procedures
- Analyze each step of the process, which includes the use of the nail gun, hazards and required safety procedures

### **Increase Training**

- Ensure training is comprehensive
- Perform formal safety onboard training through use of video and/or nail gun technical information
- Review the manufacturer's nail gun safe operating instructions
- Utilize the JHA for training and post-accident assessment
- Demonstrate how the nail gun is to be used safely
- Assess employee use of nail guns and make corrections throughout the workday
- Confirm supervisors are aware of employees who have been counseled on safe nail gun use
- Follow up with affected employees on a daily and weekly basis until deemed proficient

### **Avoid Knots in Wood**

- Make sure employees understand the 'blow-out' hazards associated with nailing into a knot
- Replace the lumbar with one that does not have knots

### **Personal Protective Equipment (PPE)**

- Ensure that proper PPE is provided and worn – hard-toe work boots, work gloves and high-impact safety glasses (ANSI Z87.1)

### **Nail Gun Inspections**

- Inspect nail guns prior to use during each shift and on a weekly basis thereafter
- Operate and maintain pneumatically-driven nail guns according to the manufacturer instructions

### **Investigate Accidents**

- Investigations must be comprehensive and in-depth to prevent recurrences of similar injuries
- Be detailed in the investigation process so you can better extract the root cause and identify corrective actions to prevent recurrences

## Additional Resources:

- [Cal/OSHA - Pneumatically-Driven Nailers](#)
- [OSHA, Nail Gun Safety](#)
- [NIOSH, Nail Gun Safety](#)

The advice presented in this document is intended as general information for employers. For further information, please contact your CompWest loss control consultant.

## Success Story

With the implementation of these additional safety procedures, the employer has had zero nail gun injuries for the past six months. Future success is sure to follow.