

**FOR IMMEDIATE RELEASE**

**Contact:** Betsy van Die  
(847) 378-0517 or [bvd@aans.org](mailto:bvd@aans.org)

## **While Nail-Gun Neck Injury is Uncommon – Do-It-Yourselfers Can Take Steps to Prevent Common Neurological Injuries at Home**

ROLLING MEADOWS, Ill. – The nail-gun neck injury and treatment incurred by a 25-year-old carpenter described in the *Journal of Neurosurgery: Spine* article might read like an oddity, but nail guns are actually a common form of penetrating low-velocity injury. What made this case unique was that the patient incurred a penetrating wound to the cervical spine by a barbed nail lodged in close proximity to the right vertebral artery. He presented at the emergency room fully conscious, without any neurological deficits, with only the head of the nail visible. A barbed nail can wreak havoc on its victim if removed incorrectly. By ordering and utilizing simple radiographs as guidance, the surgeons were able to detect that the nail was barbed and remove it very carefully through a deep neck dissection without damaging the vertebral artery. The patient recovered completely without any neurological deficits and resumed his profession.

According to the Centers for Disease Control and Prevention, the incidence of penetrating nail-gun injuries treated at US hospital emergency rooms has tripled in the last two decades, with an estimated annual rate of 37,000 cases. As the JNS authors note, a disturbing fact is that 40 percent of injuries involve consumers not employed in the construction industry – do-it-yourselfers.

“With Father’s Day just around the corner, thousands of dads will likely receive tools and gadgets for their home workshops. There tends to be a spike in these injuries with warm weather since many homeowners are eager to tackle outdoor projects,” said Gail L. Rosseau, MD, a Chicago-area neurosurgeon and American Association of Neurological Surgeons board member.

Along with nail guns, common and often seemingly harmless products found in backyards, gardens, garages, and home workshops contribute to approximately 100,000 head injuries and 46,000 neck injuries a year. According to the AANS, the more serious injuries are incurred by falling or bumping into an object forcefully. While some of these incidents are life-altering or fatal, most can be prevented. Among the biggest culprits are ladders, poles, fences, porches/balconies, items used in the garden such as tools, hoses, and sprinklers; manual and power tools, nails/screws/tacks/bolts, and garage doors.

A few true-life cases reported by the US Consumer Product Safety Commission:

- A 51-year-old male tripped and fell onto a table saw bench, suffering a closed head injury.
- An 82-year-old male was up on the roof cleaning gutters, fell off and was found by his wife on the ground, bleeding from the head. He was pronounced dead on arrival at the hospital.
- A 39-year-old male was cleaning the chimney, fell off the ladder and suffered a fatal head injury.
- A 48-year-old male was hit in the throat/neck with a hoe while gardening. He suffered an open wound to the neck and died from his injury.
- A 69-year-old female fell off a shed she was disassembling, hit her head on a tree, and landed on a pile of shingles. She suffered a neck fracture at C-6 as well as a broken nose.
- A 5-year-old male was playing on a 4 ½-foot tall stack of construction bricks, fell off and suffered a fractured skull.
- A 4-year-old male was standing on a chair, trying to reach a ball on top of the grill. He fell off the chair onto the deck, suffering a frontal skull fracture

## **AANS Outdoor Home-Related Injury Prevention Tips**

- Inspect and remove debris from walkways, driveways, porches, and yards.
- Inspect and remove debris from lawns before mowing or gardening.
- Store outdoor equipment and tools properly.
- Make sure that ladders are stable and secure before using them.
- Do not use broken equipment or tools.
- Never operate equipment, use hand or power tools, or perform do-it-yourself tasks after drinking alcohol.
- Install outdoor handrails if elderly or frail.
- Do not let children engage in activities inappropriate for their age.
- Supervise younger children at all times.
- If you suffer a penetrating injury, do NOT try to remove/dislodge the object.

The AANS has more information on injury prevention at <http://www.aans.org/patientInformation.aspx> under Patient Safety Tips.

Founded in 1931 as the Harvey Cushing Society, the American Association of Neurological Surgeons (AANS) is a scientific and educational association with more than 8,000 members worldwide. The AANS is dedicated to advancing the specialty of neurological surgery in order to provide the highest quality of neurosurgical care to the public. All active members of the AANS are certified by the American Board of Neurological Surgery, the Royal College of Physicians and Surgeons (Neurosurgery) of Canada or the Mexican Council of Neurological Surgery, AC. Neurological surgery is the medical specialty concerned with the prevention, diagnosis, treatment and rehabilitation of disorders that affect the entire nervous system, including the spinal column, spinal cord, brain and peripheral nerves.