

# Nurses effective at treating common arm injury in kids, but docs do it better

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A clinical trial to determine if nurses in the emergency department could reduce "pulled elbows" in children at a rate similar to that of physicians found that although nurses were able to treat this common injury 85% of the time, physicians were more effective, with a 97% success rate. The trial is published Mar. 24 in *CMAJ (Canadian Medical Association Journal)*.

Pulled elbow, or radial-head subluxation, is a common arm injury in young children, often resulting in a visit to the emergency department. The injury is easy to diagnose and quick to fix, but children usually wait hours in the emergency department.

Researchers performed an open, cluster-randomized controlled trial to determine whether triage nurses in the emergency department could fix the condition, thereby freeing up valuable resources. The trial involved 268 children at the Children's Hospital of Eastern Ontario in Ottawa, Canada. Children were assigned to be treated by either a physician or a nurse who was trained in treating this injury. On the basis of feedback from a survey of emergency [physicians](#), researchers set a target of 10%, meaning if nurses reduced the injury by rates within 10% of physician rates, the doctors would consider using the protocol at their hospitals.

Nurses had a success rate of 85% in reducing the injury compared with a rate of 97% by physicians, which was 12% below the physician rate.

"Nurses accurately identified and reduced radial-head subluxation in most cases," writes Dr. Andrew Dixon, Department of Pediatrics, University of Alberta, and Stollery Children's Hospital, Edmonton, Alberta, with coauthors. "Children in the nurse-treatment group had a shortened length of stay compared with [children](#) in the physician-treatment group, spending an average of 55 minutes less in the [emergency department](#)."

Although the nurses did not meet the target for reducing the injury, their success rate was still high, and there could be benefits for using trained [nurses](#) to help reduce the injury.

The authors conclude "task-shifting in health care involves trade-offs. Our study provides an informed choice between an immediate treatment that works 7 times out of 10 and a delayed treatment that works 19 times out of 20."

## More information:

[www.cmaj.ca/lookup/doi/10.1503/cmaj.131101](http://www.cmaj.ca/lookup/doi/10.1503/cmaj.131101)

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