

# Best Treatment for Wrist Fractures in Older Adults

## What's the Best Treatment for Wrist Fractures in Older Adults?

Wrist fractures among older adults are on the rise and expected to continue in that trend. Active Baby Boomers who are likely to live longer will top the list of those who experience this injury. Surgeons are taking a closer look at how this injury can be treated for the best results.

In this study, a group of researchers from the University of Michigan took the time to review studies done from 1980 to 2009 on the outcomes of treatment for unstable distal radial (wrist) fractures. This type of review is called a systematic review. By combining information from many studies, it offers more information than a single study can.

An unstable fracture means there may be several (sometimes many) bone fragments. Or the ends of the broken bone have moved away or separated from each other. This type of fracture is displaced and increases the risk of complications, malunion, and deformity.

Measures used to assess results included wrist motion, grip strength, function, X-ray findings, and complications. The studies included case series as well as randomized controlled studies. The level of evidence found ranged from low to high quality.

Some studies were done at a single site while others took place in multiple centers. At both types of centers, there were studies where only one surgeon performed all of the procedures and other studies that involved multiple surgeons.

Five different surgical treatments were reviewed: 1) the volar locking plate system, 2) nonbridging external fixation, 3) bridging external fixation, 4) percutaneous wire fixation, and 5) cast immobilization. From the names of the procedures, you can see the treatment ranged from putting a cast on the arm to holding the broken bone in place with various kinds of wires, screws, and metal plates.

With so many choices, you can see why it would be helpful for surgeons to know which one to choose, why choose that one, and when to use each approach. Taking a look back from results to treatment helps give perspective on this decision.

We will tell you a bit more details of interest but here's the bottom line: there simply was no consensus (agreement) about the best way to treat unstable wrist fractures in this age group (over 60). Surgeons must balance the patient's individual risks against the potential benefits and make the decision.

Other factors considered include patient quality of life (more than even age). Quality of life includes activity level and ability to complete daily tasks around the house or at work. Wrist pain, loss of wrist/hand motion, decreased strength, and impaired function can really put a damper on quality of life.

Complications were viewed in three separate categories: minor complications, major complications that required surgery, and major complications that did not need surgery. Minor problems after surgery included skin infection, skin blistering, and pins coming loose.

More serious problems included nerve injury, tendon rupture, deep infection, complex regional pain syndrome, and any time fixation devices had to be removed early (before healing was complete) for any reason. Patients who had to have a second surgery for any reason were also categorized as having a major complication.

A few of the more interesting findings from this study are listed below:

- Unstable wrist fractures treated conservatively (without surgery) are likely to collapse causing deformity, pain, loss of motion, and disability.
- What is seen on X-rays and how the wrist functions don't always match up. In other words, wrist deformity doesn't affect function.
- Rate of recovery is slower in older adults compared with younger patients who have the same injury. This factor can affect quality of life and may have an impact on treatment choices.
- Age of the patient and geographical location of the surgeon affected which surgical procedure was selected.

The results of this study were helpful to define problems in decision-making regarding unstable wrist fractures in older adults. The authors conclude that a multicenter study is needed to identify the best approach when treating this injury.

Results versus costs will be valuable information. Right now, we know that the traditional treatment approach (nonsurgical closed reduction with cast immobilization) isn't working for more than half the patients. So the sooner this type of information is available, the better with all those potential wrist fractures in the Baby Boom generation!

Reference: Rafael J. Diaz-Garcia, MD, et al. A Systematic Review of Outcomes and Complications of Treating Unstable Distal Radius Fractures in the Elderly. In *The Journal of Hand Surgery*. May 2011. Vol. 36A. No. 5. Pp. 824-835.