



Dr. Oppenheim and Dr. Fowler at 2015 AACPD annual meeting

## Fracture Database Yields Surprising Insights

*What data from 4,000 patients reveals about elbow fracture treatment*

Armed with the right query, Dr. Mauricio Silva, Medical Director of Orthopaedic Institute for Children (OIC), can find answers to his most pressing questions about elbow fractures.

That's because he's built the nation's largest database of patient information related to supracondylar, medial epicondyle, and lateral condyle fractures of the humerus.

"I initially tried doing some retrospective studies, but there was always information that was missing," Silva says. "So the only way to have something meaningful was to collect, every time that I saw a patient, all the information I thought could be valuable or needed in the future."

Since 2007, he and his staff have gathered information from around 4,000 patients who have been seen and treated at OIC. Data include age, hand dominance, injury type, whether or not surgery was needed, surgery type, fixation type, range of motion, presence or absence of nerve injury, radiographic information, any complications experienced and time of complete recovery.

Findings from his database studies have resulted in 15 scientific publications and have been presented at numerous conferences. All have informed his daily practice, but some have surprised the entire orthopaedic community.

Prevailing opinion on Type II supracondylar fractures, for example, advises surgery in all cases. Dr. Silva's data suggests otherwise.

"Our fracture database has shown that only those with particular characteristics—a fracture that is rotated or misaligned in a certain way—need surgery. So only about 40% of those patients with that particular injury require surgery. That, in itself, has resulted in far less surgeries for my patients."

For patients with lateral condyle fractures, the database revealed that about 76% will develop bone spurs (overgrowth) but that it will not limit range of motion. It also showed that those who receive surgery up to two weeks after injury, can still expect a satisfactory outcome.



## Faculty Accomplishments

On October 23, 2015 at the annual meeting in Austin, Texas, **Dr. William L. Oppenheim** received a Lifetime Achievement Award from the American Academy for Cerebral Palsy and Developmental Medicine.

The **Orthopaedic Research Center** at OIC is one of the six centers that was awarded a NIH consortium grant to study brittle bone or osteogenesis imperfecta.

Orthopaedic Research Society (ORS) selected **Dr. Nicholas Bernthal's** manuscript, "The role of chairman and research director in influencing scholarly productivity and research funding in academic orthopaedic surgery", as Editor's Pick in 2015.