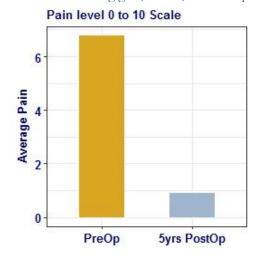
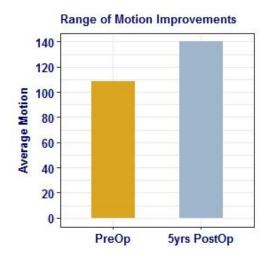


a Specialty Service of Western Orthopaedics www.denvershoulder.com 303-321-1333

Western Orthopaedics offers the only Shoulder and Elbow service in the Rocky Mountain region with two subspecialty fellowship trained Shoulder and Elbow surgeons. This unique service is highly focused on resolving common and more difficult shoulder and elbow problems while assuring the highest quality of care for our patients.

For patients with severe glenohumeral arthritis that limits function and participation in recreational activities, Total Shoulder Arthroplasty is a good option to conservative management of symptoms. *Significant improvements in shoulder range of motion and a decrease in shoulder pain is maintained over a number of years*, and patients are able to enjoy recreational activities including golf, tennis, non-bump skiing, and swimming.



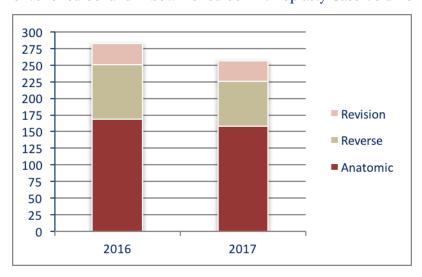


Source: Western Orthopaedics Shoulder Arthroplasty Registry, sponsored by Wright Medical

Patients who undergo elective orthopedic surgeries by surgeons specializing in upper extremity procedures, at high-volume hospitals have better surgical outcomes and experience fewer complications than those who undergo surgeries lower volume hospitals or by non-upper extremity specialists. (Hospital for Special Surgery, New York)

Armand Hatzidakis, MD and **Ben Sears, MD** perform the majority of their shoulder arthroplasty procedures at **Rose Medical Center.** Rose Medical Center was named as one of the top 10 U.S. Hospitals in Medicare Shoulder Replacement procedures (orthopedicnetworknews.com)

Denver Shoulder and Elbow - Shoulder Arthroplasty Case Volume



at Western Orthopaedics

We are often hear patients say, "I've been told I'm too old for a shoulder replacement...aren't I?" or "If I have a shoulder replacement I won't be able to participate in activities that I enjoy....right?" Shoulder replacement is an appropriate option for patients experiencing pain and loss of function due to significant joint damage from arthritis, avascular necrosis or trauma sequelae. Age alone is rarely a determining factor.

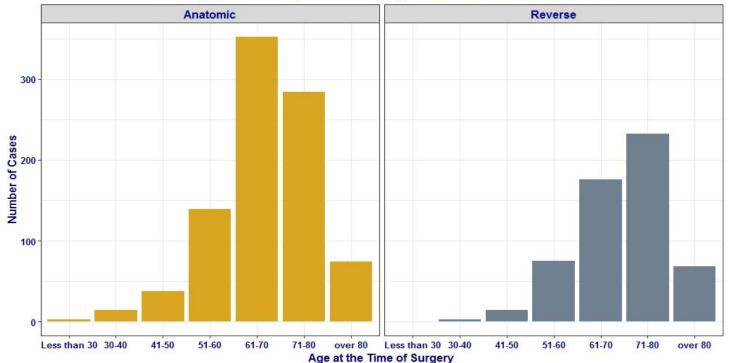


Alice was diagnosed with severe glenohumeral arthritis in her left shoulder when she was 76 years old. Her shoulder pain limited her enjoyment of some of her favorite activities such as golf and pickleball. Alice felt that her shoulder was 50% of normal and she wanted to pursue surgical treatment options. She underwent an anatomic shoulder replacement in 2012 with great result, being able to return to her high level of activity.

In 2016 she began experiencing significant pain in the right shoulder, once again limiting her functional and recreational activities. She underwent a right total shoulder arthroplasty with the new Simpliciti canal sparing implant. Now, at 6 years after left total shoulder and 2 years after the right shoulder arthroplasty, *Alice is a regular on the golf course and the pickleball court and states that her shoulders are 100% of normal.*



Primary Shoulder Replacement by Age at Denver Shoulder & Elbow





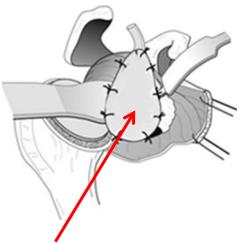
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Shannon began experiencing severe, activity limiting shoulder pain in her late 30s and was diagnosed with glenohumeral arthritis at the age of 41. She and her husband owned a fitness and self-defense company but she was unable to teach classes due to the level of pain and dysfunction she experienced.

She underwent a biologic resurfacing shoulder arthroplasty in 2012. *The biologic resurfacing procedure involves placing a humeral head resurfacing cap on the humeral side and allograft dermal tissue on the glenoid as a form of protective barrier for the glenoid.*







Cadaveric tissue covering the glenoid surface



At 6 years post-operative, Shannon states her shoulder is 95% of normal and she is able to participate in demanding physical activities such as Spartan racing, Tough Mudder and martial arts competitions. She has resumed her teaching at Colorado Krav Maga since completing the rehabilitation following her shoulder surgery.



Western Orthopaedics Research and Education Foundation



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Research interests of the clinicians with Denver Shoulder and Elbow include long-term outcomes of shoulder arthroplasty as well as new treatment options for shoulder arthritis, proximal humerus fractures and rotator cuff injury. Participation in joint replacement registries and FDA regulated Investigational Device Exemption (IDE) clinical trials enable the clinicians to conduct studies relevant to current practice decisions as well as provide an opportunity for patients to be involved in future direction of shoulder treatments.

Current Registry Studies:

- Total Shoulder Arthroplasty Multi-Center Registry; Sponsored by Arthrex, Inc.
- Tornier Shoulder Arthroplasty and Intramedullary Nail Outcomes Study; Sponsored by Wright Medical Group
- Prospective Clinical Evaluation of a Humeral Reconstruction Prosthesis; Sponsored by Exactech

Current FDA Regulated IDE Studies:

- A Prospective, Randomized, Multicenter Study Comparing the Safety and Effectiveness of Arthrex's EclipseTM Shoulder to the UniversTM II Shoulder Prosthesis in Patients with a Degenerative Joint Disease
- Pyrocarbon Humeral Head Hemi-Arthroplasty, Wright Medical Group

Other Research Activities:

- Biological resurfacing arthroplasty for younger patients with glenohumeral arthritis
- Superior capsular reconstruction for repair of massive rotator cuff tear

The Research Team:

Drs. Armand Hatzidakis and Ben Sears serve as principal investigators for the ongoing studies at Western Orthopaedics Research and Education Foundation (WOREF). Other clinical team members include Rose Christensen, PA-C, Renee Charet, PA-C.

Jackie Bader, MS, WOREF Clinical Research Director, and Libby Mauter, MSPT, WOREF Administrative Director



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