

Exactech Shoulder System Among Lowest Published Fracture Rates in Largest Study of Its Kind

***Journal of Bone and Joint Surgery* article highlights extensive study on rare and challenging type of scapula fractures after reverse total shoulder replacement surgery**

GAINESVILLE, FLA. (Sept. 3, 2020) – [Exactech](#), a developer and producer of innovative implants, instrumentation and computer-assisted technologies for joint replacement surgery, announced today that, in the largest study of its kind, Exactech's Equinox[®] shoulder system demonstrated low acromial and scapular fracture rates, according to a study published in the [Journal of Bone and Joint Surgery](#), one of the most prestigious journals in orthopaedics.

The [study](#) investigated the risk factors and impact on clinical outcomes associated with acromial and scapular fractures after reverse total shoulder arthroplasty (rTSA). This study of 4,125 shoulders, using a single medial glenoid/lateral humerus rTSA prosthesis design, is larger than the next three largest rTSA outcome studies combined and shows that the acromial and scapular fracture rate associated with the [Equinox[®]](#) platform shoulder is 1.5% (61 of 4,125 shoulders).

"Exactech has a long-term commitment to clinical data collection," said orthopaedic surgeon Joseph Zuckerman, MD, one of the study's authors. "The multi-center clinical research teams generated large-scale data to achieve the study power necessary to properly investigate rare complications like acromial and scapular fractures after rTSA. Specifically, in this important new study, we identified numerous preoperative and intra-operative risk factors and demonstrated the impact on outcomes when these fracture patients are treated conservatively."

Orthopaedic surgeon Howard Routman, DO, another study author, noted, "One of the most significant findings of this new research is that rTSA implant design is itself a risk factor for acromial and scapular fractures. The 1.5% fracture rate reported in this large study is one of lowest published rates for any rTSA prosthesis design and aligns well with the findings of a recent meta-analysis by King et al. in the Bone and Joint Journal, which concluded that this same medial glenoid/lateral humerus rTSA prosthesis design is associated with a significantly lower fracture rate than the lateral glenoid/medial humerus prosthesis design and also the Grammont (medial glenoid/medial humerus) prosthesis. Interestingly, our 1.5% fracture rate is lower than some other medial glenoid/lateral humeral prostheses, suggesting that not all lateralized humeral rTSA designs (i.e. onlay prostheses) are the same, where subtle differences in medial and lateral offset, or the use of glenoid bone graft (i.e. BIO-RSA) could be responsible for the increased fracture rates reported with these other onlay prostheses."

Chris Roche, vice president of Exactech's Extremities business unit and an author of this study, said, "Much of the published clinical research today features the experience of a single surgeon or site, and while valuable, that evidence is likely not generalizable or of significant scale to investigate rare occurrence events, like acromial and scapular fractures after rTSA. Our retrospective analysis of 4,125 rTSA shoulders features data from 23 different surgeons in the United States and Europe and

reports the causes and risk factors associated with these rare fractures. We also found the three different fracture types may be associated with different demographic, comorbidity, and implant selection-related risk factors. This knowledge may be useful for orthopaedic surgeons to preoperatively identify patients at risk for this complication, which may help mitigate fracture occurrence.”

Given the large scale and multi-center nature of this research, it is important to note that the high-powered clinical evidence presented is generalizable to different patients and surgeons for only the medial glenoid/lateral humerus rTSA prosthesis used in this study. Similarly, the recent clinical experience of much smaller studies using other onlay rTSA designs, both with and without BIO-RSA, is only relevant to those investigated prostheses, and certainly not generalizable to the Equinox prosthesis.

Exactech’s Equinox shoulder system, available worldwide, is the industry’s fastest growing and most studied shoulder system.

About Exactech

Based in Gainesville, Fla., Exactech develops and markets orthopaedic implant devices, related surgical instruments and biologic materials and services to hospitals and physicians. The company manufactures many of its orthopaedic devices at its Gainesville facility. Exactech’s orthopaedic products are used in the restoration of bones and joints that have deteriorated as a result of injury or diseases, such as arthritis. Exactech markets its products in the United States, in addition to more than 30 markets in Europe, Latin America, Asia and the Pacific. Additional information about Exactech can be found at www.exac.com.

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