



DR. GERALD F. KLIMO

A reverse total-shoulder arthroplasty is the last stop for an older patient whose irreparable rotator cuff damage (see fact box) has rendered him unable to lift an arm above his head.

Dr. Gerald F. Klimo of OMNI Orthopaedics has performed 25 such surgeries since March 2007, when the U.S. Food and Drug Administration approved manufacturer Exactech's orthopedic implants. He also served as a clinical evaluator in the development of the prosthesis, reviewing the implant and surgical tools used in the procedure.

REVERSED POSITIONS

Think of the shoulder joint as a ball and a cup, Klimo explained. In this surgery, the locations of the replacement metal alloy and plastic ball and cup are reversed. Why? Because if the rotator cuff is not functioning, the normal anatomical ball and socket configuration can't work properly.

Criteria for those who may benefit from the new surgery, he said, includes older patients who previously damaged the shoulder's rotator cuff to the degree that it cannot be repaired. This condition restrains range of motion in the arm. Many

Local surgeon takes new technique to Spain

by Diana Rossetti

patients have pain and are not able to lift their arms above shoulder height.

"We look for somebody with all the indications for normal osteoarthritis or rheumatoid arthritis. That is part of aging. We usually recommend it for somewhat older patients, where the demand level on the shoulder is not so great. The patient also must have a good deltoid muscle. (*The deltoid muscle forms the rounded contour of the shoulder, and its function is to move the arm away from the body.*) If you don't have one that's functioning well, this surgery won't help," he said.

Initial FDA guidelines indicate optimum patients be 70 years old. Klimo's youngest patient was 64. "We are starting to see younger patients being implanted because of the good results we're getting," he added.

The post-surgical recovery regimen includes keeping the arm in a sling for a short time, followed by physical therapy.

PETITION FROM SPAIN

When surgeons in Spain learned of the success of the new procedure, they petitioned Exactech to provide a surgeon to share his expertise. Klimo, who has practiced in Canton since 2000, was chosen.

During a 10-day stay there this summer, Klimo met with surgeons at hospitals in Girona and Pamplona, performing the first-ever reverse total shoulder arthroplasties. Working with his Spanish colleagues, the procedures were videotaped and

simulcast to other locations in Spain, Portugal and Italy. The University Hospital in Girona plans to use the videotape as a training tool. Generally, the surgery takes two hours.

"Total shoulder arthroplasty is a significant surgical procedure," Klimo said.

"It's a much more difficult operation because of exposure and anatomical considerations that could be damaged. Specialty training is key because this is an end-stage apparatus.

"Meaning, if this doesn't work, there is nothing else to be done.

"But for those patients who qualify for the surgery, it is quite satisfying to be able to pick up their arms and reach up over their heads again."

WHAT IS THE ROTATOR CUFF?

The rotator cuff is the network of four muscles and several tendons that form a covering around the top of the upper arm bone or humerus. These muscles form a cover around the head of the humerus. The rotator cuff holds the humerus in place in the shoulder joint and enables the arm to rotate.

Rotator cuff tears are a common cause of pain and disability among adults.

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