## **Shoulder Research at the University of Washington**

here is a critical connection between medical research and improving the care for each patient. Our research is sharply focused on restoring comfort and function to individuals with shoulder arthritis. The arthritic shoulder is complex: the normal joint surfaces are destroyed, the joint is out of balance and the muscles and tendons are contracted. Each shoulder in each patient presents a unique set of challenges. Our goal is to optimize the comfort and function for each individual in the safest possible way. This requires careful study of the condition of the shoulder and the patient before surgery, customization of the surgical procedure to manage the specifics of each case, and careful long-term follow-up to determine the result. Even though we've been treating arthritic shoulders for over forty years, we are still fine-tuning our methods through ongoing research.

One of our particular areas of research interest concerns the management of the socket of the arthritic shoulder joint. Many of our patients are best treated with the implantation of a high-density polyethylene socket that we insert with a minimal amount of bone cement. When this is coupled with a metal ball at the end of the humerus, it is called a 'total shoulder'.





Other individuals are best treated by inserting the metal ball and reaming the bony socket (rather than inserting a plastic socket) and allowing it to heal with a smooth surface – we call this a 'ream and run', a procedure developed by our team here at the University of Washington after extensive laboratory research. We've been impressed by the ability of this procedure to restore comfort and function to the shoulder by re-establishing a stable joint with a smooth joint surface. For example, here are the before surgery x-rays of a young man who developed arthritis after a prior surgery for recurrent dislocations. It is easy to see that the joint is arthritic and

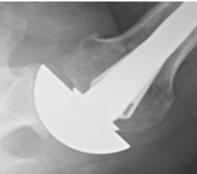




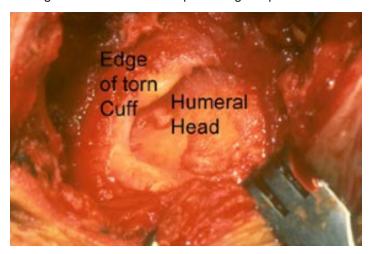
off-center. Because of the heavy demands of his profession, he chose a ream and run.

Here are his x-rays 10 months after a ream and run showing restoration of the smooth joint surfaces and balance of the joint. He is now back to active duty in the U.S. Navy special forces





As another example, our clinical research has shown that many individuals with chronic rotator cuff tears can be well treated with a small procedure that we call the 'smooth and move' rather than attempting a surgical repair of thin and retracted tendon tissue. After the 'smooth and move' the patient can start using the shoulder right away, rather than waiting several months while protecting a repair.



These are but two examples of applying research to our care of each individual.

If you would like to learn more about our research and how it is supported, please drop me an email at matsen@uw.edu. I'd also like to invite you to visit our blog where we post regular updates on what's new and what's true in the shoulder world: http://shoulderarthritis.blogspot.com/.

Best wishes,

J. C. Matsun 2

Frederick A. Matsen III, M.D. Professor

