# C Scott Humphrey, MD

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# EMPLOYMENT

Orthopaedic Surgeon, Shoulder Specialist, and Founder Humphrey Shoulder Clinic Eagle, ID 2006-present.

Research and Fellowship Co-Director, Founder Idaho Shoulder Education and Research Foundation (ISERF) Eagle, ID 2014-present.

# EDUCATION

Orthopaedic Surgery Fellow Shoulder and Upper Extremity Surgery Tom R Norris, MD and Relton H McCarroll, MD California Pacific Medical Center San Francisco, CA August 2005- July 2006

Chief Resident in Orthopaedic Surgery and Rehabilitation University of Nebraska Medical Center/Creighton University Medical Center Omaha, NE July 2004 - June 2005

Orthopaedic Surgery and Rehabilitation Resident University of Nebraska Medical Center/Creighton University Medical Center Omaha, NE July 2000 - June 2005

MD, University of Utah School of Medicine Salt Lake City, UT September 1996 – June 2000

BA, University of Oregon Eugene, OR Major: Political Science Minor: Economics September 1986 – March 1989

# **RESEARCH/PUBLICATIONS/PRESENTATIONS**

## Papers:

Humphrey CS, Gale AL. Spherical versus elliptical prosthetic humeral heads: a comparison of anatomic fit. *Journal of Shoulder and Elbow Surgery*. 2018 Jun;27(6S):S50-S57. doi: 10.1016/j.jse.2018.03.002.

Humphrey CS, Bravman JT. A Method to Facilitate Improved Positioning of a Reverse Prosthesis Stem During Arthroplasty Surgery: The Metaphyseal-centering Technique. *Techniques in Shoulder and Elbow Surgery*. 2018 Jun;19(2):67-74. doi: 10.1097/BTE.00000000000133. Epub 2018 May 1.

Sanders WE, Raizman EA, Humphrey CS, and Johnson AJ. Prevalence and associated factors of injury in bovine practitioners in the United States and Canada. *The Bovine Practitioner*, 51(2): 205-214, Summer 2017.

Humphrey CS, Sears BW, Curtin MJ. An anthropometric analysis to derive formulae for calculating the dimensions of anatomically shaped humeral heads. *Journal of Shoulder and Elbow Surgery*. 2016 Sep;25(9):1532-41. doi: 10.1016/j.jse.2016.01.032. Epub 2016 Apr 7.

Humphrey CS, Brown TC, Kuhlman S, and Sabick MB. The fixable suture anchor plate: a mechanical comparison to other devices commonly used for tendon anchorage to bone during rotator cuff repair surgery. Research to Reality. *Orthopreneur*. May/June 2010.

Humphrey CS and Giangarra CE. A Humeral-Sided, Subscapularis-Splitting Capsulorrhaphy Procedure for Multidirectional Shoulder Instability. *Techniques in Shoulder & Elbow Surgery*. 9(3):151-163, September 2008.

Kelly JD, Humphrey CS, Norris TR. Optimizing Glenosphere Position and Fixation in Reverse Shoulder Arthroplasty: Part I, The 12mm Rule. *Journal of Shoulder and Elbow Surgery*. 17(4):589-94, Jul-Aug 2008.

Humphrey CS, Kelly JD, Norris TR. Optimizing Glenosphere Position and Fixation in Reverse Shoulder Arthroplasty: Part II, The 3-column Concept. *Journal of Shoulder and Elbow Surgery*. 17(4):595-601, Jul-Aug 2008. Epub 2008 Jun 9.

Johnson DAL, Humphrey CS, Norris TR. Glenoid Resurfacing With Use of a Lateral Meniscal Allograft. *Techniques in Orthopaedics. Biologics in Shoulder Surgery.* 22(1):55-61, March 2007.

Norris TR, Kelly JD, Humphrey CS. Management of Glenoid Bone Defects in Revision Shoulder Arthroplasty: A New Application of the Reverse Total Shoulder Prosthesis. *Techniques in Shoulder and Elbow Surgery* 8(1):37–46, March 2007.

Humphrey CS, Izadi KD, Esposito PW. Osteonecrosis of the Capitate: A Pediatric Case Report. *Clin Orthop Relat Res.* 447:256-9, June 2006.

Vajda EG, Humphrey CS, Skedros JG, Bloebaum RD. Influence of topography and specimen preparation on backscattered electron images of bone. *Scanning*. 21(6):379-387, Nov-Dec 1999.

## **Textbook chapters:**

Humphrey CS, Green A. Indications and Outcomes for Revision Shoulder Arthroplasty. In: Nicholson GP, ed. *Orthopaedic Knowledge Update: Shoulder and Elbow 5*. Wolters Kluwer; In Press. Humphrey CS, Kelly JD, Norris TR. Management of Glenoid Deficiency in Reverse Total Shoulder Arthroplasty. In: Fealy S, Warren RF, Craig EV, Sperling JW, eds. *Shoulder Arthroplasty. Complex Issues in the Primary and Revision Setting.* New York: Thieme; 2008.

Durrall CJ, Giangarra CE, Humphrey CS. Anterior Capsulolabral Reconstruction. In: Robert C. Manske M, MPT, SCS, ATC, CSCS, ed. *Postsurgical Orthopedic Sports Rehabilitation: Knee and Shoulder*. First ed. Wichita: MOSBY; 2006.

### **Editorial articles:**

Humphrey CS. How to Get Rich and Not Pay Taxes in Today's Healthcare Environment: A Satire in 12 Steps. *Orthopreneur*. Sept 2012.

Humphrey CS. Doctor with Ideas, or Doctor Who's Intoxicated? Orthopreneur. 10-13, Mar-Apr 2010.

#### **Podium Presentations:**

Humphrey CS. The Long Head of Biceps Tendon is the Satan of the Shoulder. *ISERF Arthroplasty Update 2016 Course*. Middle Fork of the Salmon River, Idaho: July 30-Aug 28, 2018.

Humphrey CS. The Metaphyseal Centering Technique for Shoulder Arthroplasty: It's What is Best for Patients. ISERF Arthroplasty Update 2016 Course. Middle Fork of the Salmon River, Idaho: July 30-Aug 28, 2018.

Humphrey CS, Gale AL (presentor). Spherical versus Elliptical Prosthetic Humeral Heads: A Comparison of Anatomical Fit. *American Shoulder and Elbow Surgeons 2017 Fellow's Day Symposium* (San Diego Shoulder Course). San Diego, CA. June 16, 2017.

Humphrey CS (surgeon), Frankle MA (moderator). Live surgery streaming: reverse total shoulder arthroplasty. *International Congress offoint Replacement (ICJR) 5th Annual Shoulder Course*. Las Vegas, NV. November 4, 2016.

Humphrey CS. Humeral Head Shape: Implications for Shoulder Arthroplasty. *ISERF Shoulder Surgery Update* 2016 Course. Middle Fork of the Salmon River, Idaho: August 23-28, 2016.

Humphrey CS. Surgeon as Entrepreneur: the Importance of Protecting Your Ideas. *ISERF Shoulder Surgery* Update 2016 Course. Middle Fork of the Salmon River, Idaho: August 23-28, 2016.

Humphrey CS. The Painful Shoulder: Common Conditions and Treatments. ACMEC Grand Rounds. St. Luke's RMC, Boise, Idaho: May 11, 2016.

Humphrey CS. Rotator Cuff Treatment Update. ISERF Shoulder Surgery Update 2015 Course. Middle Fork of the Salmon River, Idaho: August 23-28, 2015.

Humphrey CS. Non Operative Treatment of Rotator Cuff Tears: When is it Appropriate? *Geisinger Orthopaedic Institute 2nd Annual Shoulder and Elbow Course*. Hershey, PA: June 19-20, 2015.

Humphrey CS. Does Impingement Syndrome exist? The Role of Isolated Arthroscopic SAD. *Geisinger* Orthopaedic Institute 2nd Annual Shoulder and Elbow Course. Hershey, PA: June 19-20, 2015.

Humphrey CS. Mid to Long Term Results in Reverse Total Shoulder Arthroplasty. *Geisinger Orthopaedic Institute* 2nd Annual Shoulder and Elbow Course. Hershey, PA: June 19-20, 2015.

Humphrey CS. Ask the Expert Workshop Session: Treatment of Proximal Humerus Fractures. 2014 Current Solutions in Shoulder and Elbow Surgery. Tampa, FL: Jan 17, 2014.

Kelly JD, Hobgood R, Humphrey CS (presenter), *P. acnes* in Shoulder Surgery. *Idaho Hand Society Conference*. Boise, ID: August 23, 2012.

Humphrey CS (presenter), Giangarra CE. A Humeral-Sided, Subscapularis-Splitting Capsulorrhaphy Procedure for Multidirectional Shoulder Instability. *Idaho Orthopaedic Society 2008 Annual Meeting*. McCall, ID: Oct. 25, 2008.

Humphrey CS. Shoulder Arthritis: Diagnosis and Treatment Options. *Idaho – Arthritis in Motion (I-AIM) Lecture Series*. Boise, ID: May 5, 2008.

Humphrey CS (co-presenter), Kelly JD (co-presenter), Norris TR. Surgical Technique for Reverse Total Shoulder Arthroplasty. Part I: the 12mm Rule. Part II: the 3-column Concept. 3<sup>rd</sup> Annual Orthopaedic Education Day. Shoulder to Hand: Hot Topics. San Francisco, CA: July 27, 2007.

Humphrey CS, Kelly JD (presenter), Norris TR. Optimizing glenoid component position and fixation in reverse shoulder arthroplasty: the 3-column concept. *American Academy of Orthopaedic Surgeons 2007 Annual Meeting*. San Diego, CA: February 14-18, 2007.

Johnson DAL (presenter), Humphrey CS. Technical Tips: The Reverse Prosthesis. New England Shoulder and Elbow Society Meeting. Jay Peak, VT: 2007.

Humphrey CS, Kelly JD, Norris TR (presenter). Preoperative Planning for Reverse Shoulder Arthroplasty: Glenoid Component Positioning. *American Shoulder and Elbow Surgeons: 23rd Annual Closed Meeting*. Chicago, IL: September 13, 2006.

Humphrey CS, Johnson DAL (presenter), Norris TR. Meniscal Allograft Interposition Arthroplasty for Shoulder Osteoarthritis: Two-year Follow-up Results. *American Shoulder and Elbow Surgeons: Biologics in Shoulder Surgery Meeting*, Chicago, Illinois: September 16, 2006.

## Poster Presentations and Abstracts:

Humphrey CS, Gale AL. Spherical Versus Elliptical Prosthetic Humeral Heads: A Comparison of Anatomical Fit (ePoster). *American Shoulder and Elbow Surgeons 2017 Annual Meeting*. New Orleans, LA: October 11-14, 2017.

Norris TR, Humphrey CS (presenter), Kelly JD, II. Management of glenoid bone defects in revision shoulder arthroplasty: A new application of the reverse shoulder prosthesis. *American Academy of Orthopaedic Surgeons 2007 Annual Meeting*, San Diego, CA: February 14-18, 2007.

Humphrey CS, Giangarra C, Buck D (presenter). A modified T-capsular shift surgical technique for anteroinferior shoulder instability with associated capsular redundancy. *Mid-America Orthopaedic Association, 22nd Annual Meeting*. Amelia Island, Florida; 2005.

Humphrey CS (presenter), Tarkin I, Knight RQ, Garvin KL. Orthopaedic Patients Expect Web Sites from their Physicians. *Mid-America Orthopaedic Association, 21st Annual Meeting*. Hilton Head Island, South Carolina; 2003.

### National Scientific Meeting Participation (Industry Sponsored)

11th Annual Fellows Course in Shoulder Arthroplasty (Enovis). Tampa, FL. April 27-29, 2023.

- Faculty member and cadaver course instructor
- Presentation: What Have I Changed since Fellowship?
- Panelist:
  - What component should I use on a 40 year old's glenoid?
  - Complex revisions

Shoulder Fellows Course (DJO). Tampa, FL. April 15-17, 2021.

- Invited faculty and cadaver lab instructor
- Presentation, Argument for Lesser Tuberosity Osteotomy
- Panelist, Case Presentations with Panel Discussion: Complications in Reverse TSA

Course Faculty. Shoulder Summit (DJO). Chicago, IL: August 23-25, 2019.

Course Faculty. Shoulder Summit (DJO). Chicago, IL: August 11-13, 2017.

Course faculty. Upper Extremity MasterMinds Roundtable: Current Concepts and Future Innovations in Upper Extremity Surgery (DJO). Vista, CA: May 20, 2017.

Course co-chairman, speaker, cadaver lab instructor. New Solutions for Challenging Shoulder Problems (CONMED). Henderson, NV: April 29, 2017.

Guest speaker on proximal humerus fracture treatment. Journal Club (DJO). Seattle, WA: April 24, 2017.

Course co-chairman, speaker, cadaver lab instructor. Advances in Shoulder & Elbow Arthroplasty (DJO). Tampa, FL: September 23-24, 2016.

Course co-chairman, speaker, cadaver lab instructor. Advances in Shoulder & Elbow Arthroplasty (DJO). Las Vegas, NV: April 29-30, 2016.

Humphrey CS. Considerations in Optimal Reverse Shoulder Stem Design. Orthopedic Journal Club (DJO). Salt Lake City, UT: July 11, 2015.

Course co-chairman, speaker, cadaver lab instructor. Advances in Shoulder Arthroplasty (DJO). Las Vegas, NV: July 24-25, 2015.

Course director, speaker, cadaver lab instructor. *Clinic Concepts in Shoulder Arthroplasty (DJO)*. Denver, CO: February 6-7, 2015.

Speaker, cadaver lab instructor, faculty. *Masters Course in Shoulder Arthroplasty (DJO)*. Vista, CA: October 24-25, 2014.

Speaker, cadaver lab instructor, faculty. Shoulder Arthroplasty Course (DJO). Tampa, FL: January 19, 2014.

Speaker, cadaver lab instructor, faculty. *Clinical Concepts in Shoulder Arthroplasty (Tornier)*. Minneapolis, MN: August 12, 2011.

Humphrey CS (presenter), 73-year-old female with fracture dislocation of the right shoulder. *Tornier Masters Course*. Chicago, IL: September 23, 2011.

Humphrey CS (presenter), Total Shoulder Arthroplasty Using the Ascend Shoulder System. *Tornier Instructional Course*. Minneapolis, MN: August 12, 2011.

Speaker, cadaver lab instructor, faculty. Reversed Shoulder Clinical Concepts (Tornier). Henderson, NV. April 9, 2010.

Kelly JD (presenter), Humphrey CS, Norris TR. Optimizing Glenosphere Baseplate Position. *Masters Shoulder Symposium (Tornier)*. Chicago, IL: Sept. 27, 2008.

Speaker, cadaver lab instructor, faculty. 2008 Clinic Concepts in Shoulder Arthroplasty (Tornier). San Diego, CA: January 25, 2008.

Humphrey CS (presenter), Kelly JD, Norris TR. Optimizing Glenosphere Position and Fixation in Reverse Shoulder Arthroplasty: Part I, The 12mm Rule; Part II, The 3-column Concept. *Tornier 2008 Clinic Concepts in Shoulder Arthroplasty*. San Diego, CA: January 25, 2008.

#### Web sites:

Creator of *ShoulderSurgeon.com*, a website for patients who are interested in learning more about conditions affecting the shoulder. Humphrey CS, Norris TR, Kelly JD, editors. *www.ShoulderSurgeon.com*. San Francisco: Humphrey; 2006-present.

Webmaster for the Department of Orthopedics at the University of Nebraska Medical Center 2000-2001.

Creator of the company Boards Prep Interactive, LLC, which produced *Interactive Prep for the USMLE Step 1*, a computer software product that was sold internationally from the internet (www.boardsprep.com), 1998-2001.

# OTHER

#### Patents:

Inventor on the following granted US Patents:

- US10433969B2 Arthroplasty implants and methods for orienting joint prosthesis
- US10610367B2 Arthroplasty components
- US10751190B2 Instruments and techniques for orienting prosthesis components for joint prostheses
- US9962266B2 Arthroplasty components
- US9956083B2 Instruments and techniques for orienting prosthesis components for joint prostheses
- US 8968371 B2 Proximal humerus fracture repair plate and system
- US 8945234 B2 Prosthesis having a metaphyseal element
- US 8267973 B2 Fixable suture anchor plate and method for tendon-to-bone repair
- US D662205 S Suture Anchor
- US D745157 S Prosthetic Device
- US D760900 S1 Keeled glenoid

## Orthopaedic device design:

Design surgeon team member, shoulder arthroplasty project, United Orthopedic Corporation (2018-present).

Design surgeon team member, DJO AltiVate standard and small shell reverse shoulder stems (short and standard length), DJO Surgical, 2013-2019.

Founder of and inventor/designer for medical device company Shoulder Options, Inc. (2007-2017).

Surgeon design team member for broaching instrumentation system to support the *Tornier* Aequalis® Reversed Fracture stem, 2010-2011.

#### Surgical Videos:

Author/producer of five surgical technique videos on VuMedi.com.

A Method to Facilitate Improved Positioning of a Reverse Prosthesis Stem During Arthroplasty Surgery: The Metaphyseal-centering Technique (http://links.lww.com/TSES/A29).

# COMMITTEE/BOARD APPOINTMENTS

Journal of Shoulder and Elbow Surgery, Reviewer, 2014-present.

American Shoulder and Elbow Surgeons, Industry Committee, 2016-present.

Guest Editorial Board Member, Orthopreneur. 2009-present.

## **BOARD CERTIFICATIONS**

Successfully passed USMLE Boards Step 1,2, and 3.

Certified by the American Board of Orthopaedic Surgery, 2008-2028.

#### INTERESTS/HONORS/AWARDS

White-water river guide on the Middle Fork of the Salmon River, Stanley, ID. Summers 1985-1996.

Certified Acute Trauma Life Saving instructor (ATLS), 2000-2002.

Stipend recipient for orthopaedic research project, University of Utah School of Medicine, 1997.

President of Kappa Sigma Fraternity, University of Oregon, 1987-1988.

Recipient of Idaho Boys State Academic Scholarship, 1985.

#### HOBBIES

Whitewater rafting

Skiing

Guitar playing

Building musical instruments and amplifiers