



## Margaret Cooke, MD

Clinical Assistant Professor, Orthopaedic Surgery

 Curriculum Vitae available Online

### CLINICAL OFFICE (PRIMARY)

- **Stanford Orthopedic Surgery at Pleasanton**

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Pleasanton, CA 94588

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### ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Donna San Juan - Administrative Associate

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### Bio

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#### BIO

Dr. Cooke is a clinical assistant professor in the Department of Orthopaedic Surgery at Stanford University School of Medicine. She has a strong clinical interest in hand, wrist, and elbow surgery for adult and pediatric patients. She is dual fellowship trained in Hand & Upper Extremity Surgery and Pediatric & Congenital Hand Surgery.

As an orthopaedic surgeon, Dr. Cooke's goal is to alleviate pain and improve hand, wrist, and elbow function so that her patients can return to the activities they enjoy. Her primary clinical interests are nerve compression (carpal tunnel), nerve injuries (traumatic/lacerations), joint instability/arthritis (degenerative conditions of the hand wrist and elbow), sports/athletic injuries, fracture care, and pediatric & congenital conditions of the hand and upper extremity.

Dr. Cooke utilizes a multi-disciplinary approach in order to provide comprehensive care for each patient. She works closely with colleagues from oncology, radiology, physical therapy, and other specialties. Her team includes certified hand therapists, cast technicians, medical assistants, and patient care coordinators. Together, Dr. Cooke and her team are committed to providing the best possible care for patients.

She invites patient referrals as early as possible when an upper extremity problem is suspected. She ensures a trusting relationship with referring physicians (whether primary care providers or specialists) by staying in communication so they understand and are comfortable with her recommendations.

In addition to patient care, Dr. Cooke has enjoyed contributing to her field through research. Among Dr. Cooke's clinical research interests is fracture healing, including gene expression following administration of medication to stimulate bone repair. She has authored articles on topics like infection prediction and pain management after surgical repair of fractures. Her work has appeared in the Journal of Orthopaedic Trauma, Journal of Orthopaedic Research, Osteoarthritis & Cartilage, Spine, and Transplantation. She also co-wrote the chapter "The History of Carpal Tunnel" for the textbook Carpal Tunnel Syndrome and Related Median Neuropathies.

Dr. Cooke's honors include a Howard Hughes Research Fellowship, an Outstanding Chief Resident Research Award, and recognition for authoring one of the top ten Foot & Ankle research papers at the 2016 American Academy of Orthopaedic Surgeons conference.

In addition to her practice in the U.S., Dr. Cooke has traveled abroad as a physician volunteer to provide surgical services in underserved areas where there is no access to hand surgery specialists. In partnership with the surgeon-founded nonprofit organization Touching Hands, she has performed hand surgeries on adult and pediatric patients in Honduras. Dr. Cooke also has traveled with Shriners Hospital to treat children in Davao, Philippines.

## **CLINICAL FOCUS**

- Congenital Hand Surgery
- Hand, Elbow and Wrist Surgery
- Hand Surgery

## **ACADEMIC APPOINTMENTS**

- Clinical Assistant Professor, Orthopaedic Surgery
- Member, Maternal & Child Health Research Institute (MCHRI)

## **HONORS AND AWARDS**

- Outstanding Chief Resident Research Award, Boston University Medical Center (2018)
- Third Place Research Award, OREF Northeast Resident Research Symposium (2017)
- Top 10 Foot & Ankle Papers: Paper 746, AAOS (2016)
- AAOS Resident Delegate, AAOS (2015)
- Howard Hughes Research Fellowship Award, Howard Hughes Medical Institute (2010)
- PACCTR Quarterly Research Fellowship, UCSF Medical School (2010)
- UCSF Dean's Prize in Outstanding Medical Student Research, UCSF Medical School (2010)
- Certificate Program in Biomedical Sciences, UCSF Medical School (2009-2011)
- M.D. with Thesis, UCSF Medical School (2009-2011)
- Dean's Quarterly Research Fellowship, UCSF Medical School (2009)
- Medical Student Curriculum Ambassador Grant, UCSF Medical School (2007)
- American Heart Association Undergraduate Research Grant, American Heart Association (2004)

## **PROFESSIONAL EDUCATION**

- Board Certification: Hand Surgery, American Board of Orthopaedic Surgery (2024)
- Board Certification: Orthopaedic Surgery, American Board of Orthopaedic Surgery (2022)
- Fellowship: Shriners Hospitals for Children Orthopaedic Surgery (2020) CA
- Fellowship: Hospital for Special Surgery Orthopaedic Surgery Residency (2019) NY
- Residency: Boston University Medical Ctr Orthopaedic Surgery (2018) MA
- Medical Education: University of California at San Francisco School of Medicine (2012) CA

## **Teaching**

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### **COURSES**

2025-26

- Musculoskeletal Exam Practicum: ORTHO 201 (Win)

#### 2024-25

- Musculoskeletal Exam Practicum: ORTHO 201 (Win)

#### 2023-24

- Musculoskeletal Exam Practicum: ORTHO 201 (Win)

#### 2022-23

- Musculoskeletal Exam Practicum: ORTHO 201 (Win)

## Publications

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### PUBLICATIONS

- **Relationships between matrix mineralization, oxidative metabolism, and mitochondrial structure during ATDC5 murine chondroprogenitor cell line differentiation.** *Journal of cellular physiology*  
Blank, K., Ekanayake, D., Cooke, M., Bragdon, B., Hussein, A., Gerstenfeld, L.  
2024
- **Incidence of Carpal Tunnel Syndrome after Distal Radius Fracture.** *Journal of hand surgery global online*  
Cooke, M. E., Gu, A., Wessel, L. E., Koo, A., Osei, D. A., Fufa, D. T.  
2022; 4 (6): 324-327
- **Open Ankle Fractures: What Predicts Infection? A multi-center study.** *Journal of orthopaedic trauma*  
Cooke, M. E., Tornetta, P. 3., Firoozabadi, R., Vallier, H., Weinberg, D. S., Alton, T. B., Dillman, M. R., Westberg, J. R., Schmidt, A., Bosse, M., Leas, D. P., Archdeacon, M., Kakazu, et al  
2021
- **Are Continuous Femoral Nerve Catheters Beneficial for Pain Management After Operative Fixation of Tibial Plateau Fractures? A Randomized Controlled Trial** *JOURNAL OF ORTHOPAEDIC TRAUMA*  
Cooke, M. E., Welch, T., Gusakov, O., Tornetta, P.  
2019; 33 (12): E447–E451
- **Serum proteomic assessment of the progression of fracture healing** *JOURNAL OF ORTHOPAEDIC RESEARCH*  
Hussein, A. I., Mancini, C., Lybrand, K. E., Cooke, M. E., Matheny, H. E., Hogue, B. L., Tornetta, P., Gerstenfeld, L. C.  
2018; 36 (4): 1153–63
- **Correlation between RUST assessments of fracture healing to structural and biomechanical properties** *JOURNAL OF ORTHOPAEDIC RESEARCH*  
Cooke, M. E., Hussein, A. I., Lybrand, K. E., Wulff, A., Simmons, E., Choi, J. H., Litrenta, J., Ricci, W. M., Nascone, J. W., O'Toole, R. V., Morgan, E. F., Gerstenfeld, L. C., Tornetta, et al  
2018; 36 (3): 945–53
- **The History of Carpal Tunnel** *Carpal Tunnel Syndrome and Related Median Neuropathies*  
Cooke, M. E., Duncan, S.  
Springer.2017: 7–12
- **ECM stiffness primes the TGF beta pathway to promote chondrocyte differentiation** *MOLECULAR BIOLOGY OF THE CELL*  
Allen, J. L., Cooke, M. E., Alliston, T.  
2012; 23 (18): 3731–42
- **Structured three-dimensional co-culture of mesenchymal stem cells with chondrocytes promotes chondrogenic differentiation without hypertrophy** *OSTEOARTHRITIS AND CARTILAGE*  
Cooke, M. E., Allon, A. A., Cheng, T., Kuo, A. C., Kim, H. T., Vail, T. P., Marcucio, R. S., Schneider, R. A., Lotz, J. C., Alliston, T.  
2011; 19 (10): 1210–18
- **Transfusion-Related Acute Lung Injury After Transfusion of Maternal Blood A Case-Control Study** *SPINE*  
Dunbar, N., Cooke, M., Diab, M., Toy, P.  
2010; 35 (23): E1322–E1327

- **Peripheral blood leukocyte counts in cytomegalovirus infected heart transplant patients: Impact of acute disease versus subclinical infection** *TRANSPLANTATION*

Cooke, M. E., Potena, L., Luikart, H., Valantine, H. A.  
2006; 82 (11): 1419-1424