



## Jordan Grier, MD

### Bio

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Dr. Jordan Grier is a fellowship-trained Hand & Upper Extremity surgeon at OrthoCarolina. Dr. Grier completed his undergraduate degree at The Ohio State University. He then earned his Doctor of Medicine degree and completed his orthopedic surgery residency training at Duke University Medical Center. Dr. Grier completed additional subspecialty training in hand and upper extremity surgery, peripheral nerve surgery, brachial plexus surgery, and microsurgery at the OrthoCarolina Hand Center.

Dr. Grier is committed to taking a patient-centered approach to care, and partners with each patient to create an individualized treatment plan to allow patients to achieve their unique goals and return to activities they enjoy.

Dr. Grier provides the latest in minimally invasive surgical techniques including arthroscopic surgery, wide-awake surgery, and endoscopic and open carpal tunnel release. He also offers hand, wrist, elbow, and shoulder fracture care as well as various injections, including the XIAFLEX® injection for Dupuytren's contracture. Dr. Grier has a particular interest in peripheral nerve surgery, sports-related injuries of the upper extremity, arthritis of the upper extremity including the hand, wrist, and elbow, and upper extremity reconstruction including nerve transfers, tendon transfers, and microvascular surgery.

Outside of work, Dr. Grier enjoys spending time with his wife and three children exploring the many wonderful parks and trails around Charlotte, playing golf, as well as attending concerts and sporting events.

### LOCATIONS

- Ballantyne
- Hand Center

### CLINICAL SPECIALTIES

- Elbow
- Hand
- Trauma
- Wrist

### Education

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- **The Ohio State University** - *B.S. in Neuroscience, Minor in Integrative Approaches to Health & Wellness*
- **Duke University School of Medicine** - *Doctor of Medicine*
- **Duke University Medical Center** - *Orthopedic Surgery Residency*
- **OrthoCarolina Hand Center** - *Hand & Upper Extremity Fellowship*

## Practice

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### CLINICAL SPECIALTIES:

- Arthritis and joint replacement of the hand, wrist, elbow
- Clavicle fractures
- Dupuytren's contracture, including XIAFLEX® injections
- Elbow fractures
- Endoscopic and open carpal tunnel surgery
- Hand fractures
- Hand, wrist, and elbow pain
- Humerus fractures
- Kienbock's disease and avascular necrosis
- Ligament injuries of the hand, wrist, and elbow
- Nerve injuries
- Nerve transfers
- Peripheral nerve surgery of the upper and lower extremity
- Shoulder fractures•
- Sports-related injuries of the upper extremity
- Tendon injuries, tendinopathies, and tendonitis
- Tendon transfers
- Upper and lower extremity amputee care
- Upper extremity fracture nonunion
- Wide-awake, minimally invasive hand surgery
- Wrist arthroscopy
- Wrist fractures

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### PROFESSIONAL SOCIETIES

- American Society for Surgery of the Hand – Candidate Member
- American Association for Hand Surgery – Candidate Member
- American Academy of Orthopaedic Surgeons – Candidate Member
- Piedmont Orthopaedic Society – Member
- American Orthopaedic Association - Emerging Leaders Program

## Awards

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- American Society for Surgery of the Hand Video Theater Competition – 2nd place – Transfer of the Opponens Pollicis Motor Branch to the Terminal Deep Branch of the Ulnar Nerve to Restore Pinch (2021)
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- American Orthopaedic Association (AOA) Resident Leadership Forum Participant (2019)
- Best Paper Presentation – Shoulder and Elbow Session – North Carolina Orthopaedic Association Annual Meeting (2018)
- American Society for Surgery of the Hand Annual Meeting Resident Scholarship (2018)
- Anthony V. Seaber Student Fellowship Award (2014)
- Research Distinction, Cum Laude Graduate - The Ohio State University (2011)

## Research

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### BOOK CHAPTERS

- **Grier, A.J.**, Malone, K.J. Extensor Tendon Injuries. In: Rhee, P.C., Hammert, W.C., Hand Surgery Update, Volume VII. American Society for Surgery of the Hand, Rosemont, IL, 2023.
- Gaston, R.G., **Grier, A.J.** Phalangeal and Metacarpal Fractures in the Digits. In: Lourie, G.M., Hand and Wrist Injuries in Baseball, 1e. Springer, New York, NY, 2021
- **Grier, A.J.**, Ruch, D.S. Bridge Plating of Distal Radius Fractures. In: Geissler, W.B., Wrist and Elbow Arthroscopy, 3e. Springer, New York, NY, 2021.
- **Grier, A.J.**, Ruch, D.S. Technique Spotlight: Bridge Plating. In: Garrigues, G.E., Skeletal Trauma of the Upper Extremity, 1e. Elsevier, Philadelphia, PA, 2021.

### PUBLICATIONS

- **Grier, A.J.**, Pidgeon, T.S., Baumgartner, R.E., Paul, A.V., Risoli, T.J., Green, C.L., Richard, M.J., Ruch, D.S. Impact of Time to Fixation on Outcomes of Operative Treatment of Intraarticular Distal Radius Fractures (In Review – HAND).
- Guerrero, E.M., **Grier, A.J.**, Ferlauto, H.R., Wahl, E.P., Richard, M.J., Ruch, D.S. Suspensionplasty for Revision Thumb Carpometacarpal Osteoarthritis Surgery: Comparing Suture Button Suspensionplasty to Ligament Reconstruction and Tendon Interposition. *Plast Reconstr Surg.* 2022 Sep 1;150(3):601-605.
- **Grier, A.J.**, Loeffler, B.J., Gaston, R.G. Starfish Procedure. *Hand Clin.* 2021 Aug; 37(3): 447-455.

- Crowe, M.M., Martin, J.T., **Grier, A.J.**, Spritzer, C.E., Richard, M.J., Ruch, D.S. In Vivo Mechanical Function of the Distal Radial Ulnar Ligaments During Rotation of the Wrist. *J Hand Surg Am.* 2020 Nov;45(11):1012-1021.
- Mundy, L.R., Klassen A., Sergesketter A.R., **Grier A.J.**, Carty M.J., Hollenbeck S.T., Pusic A.L., Gage M.J. Content Validity of the LIMB-Q: A Patient-Reported Outcome Instrument for Lower Extremity Trauma Patients. *J Reconstr Microsurg.* 2020 Jul 2.
- Mundy, L.R., Klassen, A., **Grier, A.J.**, Gibbons, C., Lane, W., Carty, M.J., Pusic, A.L., Hollenbeck, S.T., Gage, M.J. Identifying Factors Most Important to Lower Extremity Trauma Patients: Key Concepts From the Development of a Patient-Reported Outcome Instrument for Lower Extremity Trauma, The LIMB-Q. *Plast and Reconstr Surg.* 2020 May;145(5):1292-1301.
- Ruch, D.S., Tocci, F.L., **Grier, A.J.**, Miles, J.J., Patel, P.S., Mithani, S.K., Richard, M.J. Integrated Compression Screw Stabilization of the Dorsal Lunate Facet in Intra-articular Distal Radius Fractures. *J Hand Surg Am.* 2020 Apr;45(4):361.e1-361.e7.
- Mundy, L.R., Klassen, A., **Grier, A.J.**, Carty, M.J., Pusic, A.L., Hollenbeck, S.T., Gage, M.J. Development of a Patient-Reported Outcome Instrument for Patients With Severe Lower Extremity Trauma (LIMB-Q): Protocol for a Multiphase Mixed Methods Study. *JMIR Res Protoc.* 2019 Oct 17;8(10):e14397.
- Mundy, L.R., **Grier, A.J.**, Weissler, H.E., Carty, M.J., Pusic, A.L., Hollenbeck, S.T., Gage, M.J. Patient-Reported Outcome Instruments in Lower Extremity Trauma: A Systematic Review of the Literature. *Plast Reconstr Surg Glob Open.* 2019 May3;7(5):e2218.
- Shamma, R.L., Mundy, L.R., Truong, T., Weber, J.M., **Grier, A.J.**, Cho, E.H., Peskoe, S.B., Gage, M.J., Hollenbeck, S.T. Identifying Predictors of Time to Soft Tissue Reconstruction Following Open Tibia Fractures. *Plast and Reconstr Surg.* 2018 Dec;142(6):1620-1628.
- **Grier, A.J.**, Tainter, D.M., Godin, J.A., Klement, M.R., Templeton, E.L., Lark, R.K., Alman, B.A., Reilly, R.M. Incarcerated Coronoid Fracture at the Time of Pediatric Elbow Dislocation. A Case Report. *The Duke Orthop J.* 2018 8(1);22-27.
- **Grier, A.J.**, Garret, W.E., Moorman, C.T., Queen, R.M. Gender-Specific Lower Extremity Kinematic Differences in Collegiate Soccer Athletes During Three Kicking Tasks. *The Duke Orthop J.* 2018 8(1);55-60.
- **Grier, A. J.**, Bala, A., Penrose, C. T., Seyler, T. M., Bolognesi, M. P., Garrigues, G. E. Analysis of Complication Rates Following Perioperative Transfusion in Shoulder Arthroplasty. *J Shoulder Elbow Surg.* 2017 Jul;26(7):1203-1209.

- **Grier, A.J.**, Butler, R.J., Adams, S.B., Queen, R.M. The Effect of Hindfoot Alignment on Frontal Plane Mechanics Following Total Ankle Replacement. *Gait Posture*. 2016 Jul;48:13-8.
- Heim, E.A., **Grier, A.J.**, Butler, R.J., Bushmiaer, M., Queen R.M., Barnes C.L. Use of Liposomal Bupivacaine Instead of an Epidural Can Improve Outcomes Following Total Knee Arthroplasty. *J Surg Orthop Adv*. 2015 Winter;24(4):230-4
- Queen, R.M., **Grier, A.J.**, Butler, R.J., Adams, S.B., Easley, M.E., Nunley, J.A., DeOrio, J.K. Prospective Results of Concomitant Triceps Surae Lengthening at the time of Total Ankle Arthroplasty. *Foot Ankle Int*. 2014 Sep;35(9):863-70.
- Agarwal, V., Babu, R., **Grier, A.J.**, Adogwa, O., Back, A., Friedman, A. H., Fukushima, T., & Adamson, C. (2013). Cerebellopontine angle meningiomas: postoperative outcomes in a modern cohort. *Neurosurgical focus*, 35(6), E10.
- Walton, J.C., **Grier, A.J.**, Weil, Z.M., Nelson, R.J. Photoperiod and stress regulation of corticosteroid receptor, brain-derived neurotrophic factor, and glucose transporter GLUT3 mRNA in the hippocampus of male Siberian hamsters (*Phodopus sungorus*). *Neuroscience*. 2012 Jun 28;213:106-11.

## PODIUM PRESENTATIONS

- 2019 **Grier, A.J.** (presenter), Pidgeon, T.S., Baumgartner, R.M., Paul, A.V., Richard, M.J., Ruch, D.S. Impact of Time to Fixation on Outcomes of Operative Treatment of Intraarticular Distal Radius Fractures. American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting, Las Vegas, NV.
- 2019 Guerrero, E.M. (presenter), **Grier, A.J.**, Ferlauto, H.R., Richard, M.J., Ruch, D.S. Suspensionplasty for Revision Thumb Carpometacarpal Osteoarthritis Surgery. American Association for Hand Surgery (AAHS) Annual Meeting, Palm Desert, CA.
- 2018 Guerrero, E.M., **Grier, A.J.** (presenter), Ferlauto, H.R., Richard, M.J., Ruch, D.S. Suspensionplasty for Revision Thumb Carpometacarpal Osteoarthritis Surgery. North Carolina Society for Surgery of the Hand (NCSSH) Annual Meeting, Kiawah Island, SC.
- 2018 Guerrero E.M., **Grier, A.J.** (presenter), Morwood M.P., Kankaria R.A., Johnston P.A., Garrigues G.E. Shoulder Arthroplasty Using Mini-Stem Humeral Components and a Lesser Tuberosity Osteotomy. North Carolina Orthopaedic Association (NCOA) Annual Meeting, Kiawah Island, SC.
- 2015 Queen, R.M. (presenter), **Grier, A.J.**, Butler, R.J., Wellman, S.S., Bolognesi, M.P., Attarian, D.E. Differences Between Observed and Patient-

Reported Functional Status Following Primary Total Joint Arthroplasty. Orthopaedic Research Society (ORS) Annual Meeting, Las Vegas, NV.

- 2014 **Grier, A.J.** (presenter), Queen, R.M., Butler, R.J., Wellman, S.S., Attarian, D.E., Bolognesi, M.P., Queen, R.M. Differences Between Observed and Patient-Reported Functional Status Following Primary Total Joint Arthroplasty. Southern Orthopaedic Association (SOA) 31st Annual Meeting, Beaver Creek, CO.
- 2014 **Grier, A.J.** (presenter), Butler, R.J., Silverstein, J., Queen, R.M. Kinematic Differences Between Male and Female Collegiate Soccer Athletes in Three Soccer Kicking Tasks. Human Movement Science Research Symposium, University of North Carolina – Chapel Hill, Chapel Hill, NC.

## INVITED LECTURES

- 2023 Nondissociative Capral Instability. American Association for Hand Surgery (AAHS) Annual Meeting. Aventura, FL.
- 2022 Targeted Muscle Reinnervation and Regenerative Peripheral Nerve Interfaces. University Hospitals Orthopaedic Surgery Grand Rounds. Cleveland, OH.

## ADUIOVISUAL PRESENTATIONS

- 2021 **Grier, A.J.**, Niedermeier, S.R., Guerrero, E.M., Lake, N.H., Gaston, R.G., Loeffler, B.J. Transfer of the Opponens Pollicis Motor Branch to the Terminal Deep Branch of the Ulnar Nerve to Restore Pinch. ASSH Video Theater

## JOURNAL PEER REVIEW ACTIVITIES

- Journal of Hand Surgery
- Clinical Orthopaedics and Related Research