## ADVANCING MEDICINE

### LEADING ORTHOPAEDICS



Hand & Upper Extremity

# Multidisciplinary Approach

The Methodist Bone & Joint Center is home to a superior level of hand and upper extremity expertise. Led by renowned hand specialist Evan D. Collins, M.D., chief of the Methodist Hand & Upper Extremity Center and board member for the Center for Performing Arts Medicine (CPAM), the center's collaborative, patient-centric approach is translating into advancements in evidence-based treatment protocols.

Specialists offer the latest in minimally invasive endoscopic carpal and cubital tunnel releases as well as platelet-rich plasma procedures, percutaneous needle fasciotomy (PNF) and non-operative injection and rehabilitation therapies. Surgical advances in fracture repair and wrist arthroplasty have also improved outcomes for some of our more complex hand and upper extremity cases.

#### **Uncovering New Advancements**

Research remains a priority within the center, and our physicians serve as lead investigators in studies assessing new advancements in treating common tendinopathies. Our published works are contributing to improved reconstruction procedures and the management of scaphoid wrist fractures. Our efforts have improved the understanding of the role of the sigmoid notch in distal radius fractures and the reliability and reproducibility of MRI technology in evaluating the anterior oblique ligament and trapeziometacarpal joint - establishing effective imaging protocols for early identification of conditions leading to degenerative arthritis.

#### Performing Artists, the Unconventional Athlete

Leveraging our unique understanding of treatment protocols for returning athletes to peak performance, we have furthered studies in a new area of hand and upper extremity care – the "athletes" of the performing arts. Dr. Collins leads a dedicated,

## with a Singular Goal

research-driven team of physicians – from plastics, neurosurgery, neurology, opthalmology and orthopaedics – who collaborate with nutritionists and specialized hand and rehabilitation therapists to care for this unique group. The team applies a pragmatic, holistic approach to the care of performing artists – assessing not only the mechanical and biological implications of the repetitive stress and overuse conditions from which they suffer over their long careers, but also the role of "capacity" in overstress conditions of the lifelong performing artist.

In collaboration with CPAM, Dr. Collins and Richard Stasney, M.D., FACS, founder of CPAM and director of the Texas Voice Center, are working to develop through capacity research and clinical outcome data effective protocols in the care of overuse, repetitive stress conditions and repetitive trauma – including persistent pain, loss of facility, endurance and strength as well as myofascial pain and tendonitis.

### Research with the Best Translational Effect

Over 50 percent of musicians in the United States experience musculoskeletal injuries, with a recurrence rate of playingrelated musculoskeletal disorders (PRMD) of over 35 percent. Research efforts are ongoing to determine the long-term impact of repetitive musculoskeletal stress in performing artists with the goal to provide evidence-based results in establishing preventive conditioning programs and uniform changes in treatment protocols for young artists at the start of their careers.

More closely aligned with everyday individuals than elite athletes studied through sports medicine, findings from the study of performing artists, whose career can last decades, will have far-reaching implications for everyday patients and will lead to better treatments and prevention of tendinopathic and other repetitive stress conditions for the general population. All clinical outcomes contribute to a global database translated for broader application and education.



"Our work with professional athletes and performing artists is translating into a better understanding of their unique health care needs, which will have significant implications for the care of everyday individuals experiencing repetitive stress conditions."

#### Evan D. Collins, M.D.

Chief, Methodist Hand & Upper Extremity Center Director, Plastic Surgery Resident Rotation