

Baylor College of Medicine





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It is a new day for Orthopedics and Sports Medicine at Texas Children's Hospital. Our Division is excited to be expanding its faculty ranks and collaborating across the hospital to create the best combination of musculoskeletal, sports medicine, physical medicine and rehabilitation, radiology and genetics professionals in the United States.

Texas Children's Hospital is the largest pediatric hospital in the country and is ranked number 4 in the nation by U.S. News & World Report. In addition to the hospital and clinics in the Texas Medical Center, Texas Children's has two full-service children's hospitals in our communities – West Campus near Katy, TX and Texas Children's The Woodlands opening outpatient services in 2016 and a full-service hospital in 2017. The Division of Orthopedic Surgery sees patients at 8 total locations across the greater Houston area. Baylor College of Medicine is our academic partner. All new faculty members are appointed as assistant, associate or full professor, with or without tenure. Baylor also sponsors the majority of academic research and IRB activities.

I hope you enjoy reading this overview of Texas Children's Hospital and the Division of Orthopedics. I am incredibly enthusiastic about what lies ahead for us.

Whn? Dormans

John P. Dormans, MD, FACS Chief, Pediatric Orthopedic Surgery L.E. Simmons Chair in Orthopedic Surgery *Texas Children's Hospital* Professor of Orthopedic Surgery *Baylor College of Medicine* jpdormans@texaschildrens.org

An Overview of the **Division of Orthopedics**







Division Snapshot

ORTHOPEDIC SURGEONS

SPORTS MEDICINE PHYSICIANS

ADVANCED PRACTICE PROVIDERS PEDIATRIC ATHLETIC TRAINERS

SPORTS PHYSICAL THERAPISTS

OUR VOLUME 2,400+ OPERATING ROOM CASES January 2015 - December 2015 OUR VOLUME 34,000+ FACULTY CLINIC VISITS January 2015 - December 2015

SPECIALIZED PROGRAMS AND CLINICS

BONE & SOFT TISSUE TUMORS

CLUBFOOT

LIMB DEFORMITY & CORRECTION

FRACTURES & TRAUMA

HIP PRESERVATION

MUSCULOSKELETAL RADIOLOGY

NEUROMUSCULAR CONDITIONS MUSCULOSKELETAL INFECTIONS SCOLIOSIS SKELETAL DYSPLASIA SPINA BIFIDA SPORTS MEDICINE

Orthopedic Volumes



Orthopedic Operating Room Cases by Year

Operating room case volumes include procedures performed by Texas Children's Hospital, Baylor College of Medicine and private practice physicians at Texas Children's Hospital surgical locations.



Faculty Orthopedic Clinic Visits

Clinic visits include outpatient visits by Texas Children's Hospital and Baylor College of Medicine faculty only.





The Division of Orthopedic Surgery operates at two hospitals in Houston - Texas Children's Main Campus and West Campus. In 2017, our newest hospital and surgical location in The Woodlands opened. There are 8 total locations across the city where our surgeons see patients. Our orthopedics team works closely with Sports Medicine, Physical Therapy, and Radiology colleagues to provide the best continuity of care for our patients.

Meet Our Orthopedics Team







John P. Dormans, MD, FACS

Chief, Pediatric Orthopedic Surgery L.E. Simmons Chair in Orthopedic Surgery Texas Children's Hospital Professor of Orthopedic Surgery Baylor College of Medicine

Dr. John Dormans has been chief of Orthopedic Surgery at Texas Children's Hospital since May 2015. He also holds the L.E. Simmons Chair in Orthopedic Surgery and is a professor of Orthopedic Surgery at Baylor College of Medicine.

In 2014-2015, Dr. Dormans was the president of the Scoliosis Research Society (SRS), presiding over the society's 50th anniversary meeting in Minneapolis. Dr. Dormans has won the SRS Hibbs Award for Best Basic Science Paper in 2011 and Best Clinical Paper in 2006. He served as president of the Pediatric Orthopaedic Society of North America for 2009-2010 and was an AAOS and AOA Kashewagi Suzuki traveling fellow to Japan in 1996. In 2016, Dr. Dormans was elected to the presidential line of the Société Internationale de Chirurgie Orthopédique et de Traumatologie (SICOT). He also serves as secretary general of the SICOT Foundation and president of the World Orthopaedic Concern.

Dr. Dormans came to Texas Children's from The Children's Hospital of Philadelphia (CHOP) where he served as the Chief of Orthopedic Surgery from 1996 to 2014. He also held the Richard M. Armstrong Endowed Chair in Pediatric Orthopedic Surgery and was a professor of Orthopaedic Surgery at the University of Pennsylvania. Dr. Dormans had been at CHOP and Penn since 1990. He served as President of the Medical Staff and as the President of Children's Surgical Associates at CHOP for four, three-year terms. Dr. Dormans was the recipient of both the Jesse T. Nicholson Award for Excellence in Clinical Teaching and the Dean's Award for Excellence in Clinical Teaching from Penn in 1995.

Dr. Dormans is a past-chairman of the Board of Directors Orthopaedics Overseas and served on the Board of Directors of the Decade of the Bone and Joint Project.

He has published over 340 articles, authored more than 140 chapters, written/edited 5 books, and has participated as an invited lecturer in nearly 50 countries. While at CHOP, Dr. Dormans directed the Pediatric Orthopedic Fellowship that trained 51 clinical fellows and 37 research fellows.



William A. Phillips, MD

Orthopedic Surgeon Texas Children's Hospital Professor, Orthopedic Surgery and Pediatrics Learning Community Senior Associate Baylor College of Medicine

Dr. William A. Phillips is a board-certified orthopedic surgeon specializing in pediatric orthopedics. He has special interest in spinal disorders such as scoliosis, kyphosis, spondylolysis, and spondylolisthesis, as well as disorders for the cervical spine including Klippel-Feil syndrome, atlanto-axial instability, and swan neck deformity. He treats children with congenital problems such as clubfoot, hemihypertrophy, femoral hypoplasia, fibular or tibial hemimelia as well as developmental problems such as Blount's disease, Legg-Calve-Perthes, SCFE, and neuromuscular problems, such as myelomeningocele and cerebral palsy.

Dr. Phillips serves as a professor for the Departments of Orthopedic Surgery and Pediatrics at Baylor College of Medicine and is former Chief of the Division of Orthopedic Surgery and Scoliosis at Texas Children's Hospital. He is a nationally recognized lecturer and has authored several book chapters on spinal problems in children and in a variety of pediatric orthopedic topics.

Following undergraduate studies at the University of Notre Dame in South Bend, Indiana, Dr. Phillips earned his medical degree from the University of Chicago Pritzker School of Medicine. He completed his internship and a residency in orthopedic surgery at University of Chicago Hospital, followed by a fellowship in spinal disorders at Rush-Presbyterian/St. Luke's Medical Center in Chicago.

Dr. Phillips' professional memberships include the American Academy of Orthopaedic Surgeons (Fellow), American Academy of Pediatrics (Fellow), American Orthopaedic Association, Scoliosis Research Society (Fellow), Pediatric Orthopaedic Society of North America, Cervical Spine Research Society, American Academy of Cerebral Palsy And Developmental Medicine, Orthopaedic Research Society, Mid-America Orthopaedic Association, American Medical Association, American College of Surgeons (Fellow), Texas Orthopedic Association, Texas Medical Association, Texas Pediatric Society, Houston Orthopedic Society, and Harris County Medical Society.



Howard R. Epps, MD

Medical Director, Orthopedic Surgery Texas Children's Hospital Associate Professor, Orthopedic Surgery Baylor College of Medicine

Dr. Howard R. Epps is a leader in the field of pediatric orthopedics, distinguishing himself in a variety of research, clinical, and academic roles. His clinical interests include limb deformity and reconstruction, fractures, clubfoot, musculoskeletal infection, and cerebral palsy, which led him to author more than 35 book chapters and publications in various academic and medical journals.

Board-certified in orthopedic surgery, Epps received an undergraduate degree from Harvard College and earned his medical degree from Johns Hopkins University School of Medicine. After completing his orthopedic surgery residency program at Harvard, he pursued his fellowship in Pediatric Orthopaedic Surgery at the Hospital for Sick Children in Toronto, Canada.

Epps is very active in orthopedic professional societies. He is a member-at-large of the Board of Directors of the American Academy of Orthopaedic Surgeons and is president of the Texas Orthopedic Association. He recently served as secretary of the Pediatric Orthopaedic Society of North America and president of the Houston Orthopaedic Society.

In 2002, Epps was an American Academy of Orthopaedic Surgeons Leadership Fellow and has served on the academy's Patient Safety Committee, Nominating Committee, the Member Communications Oversight Group, the editorial board of AAOS Now, and the Board of Specialty Societies Health Policy Committee.

Epps is a fellow of the American Academy of Orthopaedic Surgeons and the American Academy of Pediatrics. He also recently served as chairman of the Healthcare Delivery Council for Pediatric Society of North America.



Jeffrey S. Shilt, MD

Chief Surgical Officer Texas Children's Hospital - The Woodlands Orthopedic Surgeon Texas Children's Hospital Associate Professor of Orthopedic Surgery Baylor College of Medicine

Jeffrey S. Shilt is the Chief Surgical Officer at Texas Children's Hospital The Woodlands. He specializes in pediatric orthopedic surgery and adult and pediatric endurance sports medicine. Dr. Shilt earned his medical degree from University of Missouri-Kansas City School of Medicine and completed his General Surgery Internship and Orthopedic Surgery Residency at Ochsner Clinic in New Orleans followed by a Pediatric Orthopedic Fellowship at Vanderbilt University.

He previously served as medical director of Pediatric Orthopedics at Saint Alphonsus Regional Medical Center in Boise, Idaho and was formerly the head of the motion analysis lab for children and adults, a combined effort between St. Luke's Children's Hospital and Boise State University. Additionally, Dr. Shilt served as the director of the Spasticity Clinic as well as the Orthopedic Rehabilitation Services for the St. Luke's Health System, developing programs to deliver care to adult and pediatric patients with spasticity from a variety of disorders.

Though published in multiple areas of orthopedics, Dr. Shilt's research efforts focus on advancing the care of children with spasticity and cerebral palsy. He has participated on national and international expert panels on the topic. Dr. Shilt has been an invited guest lecturer at Grand Rounds and special lectures at over 100 national and international events, including a Pediatric Orthopaedic Society of North America sponsored teaching trip to Southeast Asia in 2003.

He has held multiple leadership roles on numerous local and national committees throughout his career. Dr. Shilt is a member of the Pediatric Orthopaedic Society of North America and serves on the Trauma & Prevention Committee. In addition, he belongs to the American Academy of Orthopaedic Surgeons, Scoliosis Research Society, American Orthopaedic Association and the American Academy for Cerebral Palsy and Developmental Medicine.

Dr. Shilt has been involved in triathlons and other endurance sports for over a decade and is an accomplished competitor and coach.



Bryce R. Bell, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Bell will begin seeing patients at Texas Children's Hospital in Spring 2017

Dr. Bell completed both his medical degree and residency training in orthopedic surgery at Baylor College of Medicine. He then went on to pursue a hand and upper extremity fellowship at the Medical College of Wisconsin in Milwaukee and is currently completing an additional fellowship in pediatric upper extremity surgery at Texas Scottish Rite Hospital in Dallas.



Benny Dahl, MD, PhD

Orthopedic Surgeon Texas Children's Hospital Professor, Orthopedic Surgery Baylor College of Medicine Dr. Dahl will begin seeing patients at Texas Children's Hospital in Spring 2017.

Dr. Dahl is an accomplished and internationally renown spine surgeon and will arrive to Texas Children's Hospital from Denmark where he is a Clinical Professor at the University of Copenhagen and the Head of Spine Surgery in the Department of Orthopaedic Surgery, Rigshospitalet. Previously Dr. Dahl served research fellowships in the Department of Orthopaedic Surgery, Rigshospitalet and at the University of Texas Southwestern Medical Center in Dallas.



Frank T. Gerow, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Gerow specializes in pediatric orthopedic and spine surgery with an emphasis on surgical correction of spinal deformity, including scoliosis.

Dr. Gerow earned his medical degree and completed his orthopedic residency at Baylor College of Medicine, followed by a fellowship in pediatric orthopedic surgery at the same institution.

His professional memberships include the American Academy of Orthopaedic Surgeons, Pediatric Orthopaedic Society of North America, Texas Orthopedic Association and Harris County Medical Society.



Aharon Z. Gladstein, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Aharon Z. Gladstein MD is a pediatric orthopedic surgeon with a subspecialty interest in sports injuries. He specializes in the use of arthroscopy in the management of a wide spectrum of pathologies. His goal is to help children and teenagers recover from injuries and return to activities by developing individualized surgical and non-surgical care plans.

Dr. Gladstein earned his medical degree from the Albert Einstein College of Medicine, and completed residency training at the Montefiore/Einstein department of orthopedic surgery. He trained in pediatric orthopedics at the Hospital for Sick Children in Toronto, followed by a combined adult and pediatric sports medicine fellowship at the University of Pennsylvania. In addition to sports medicine and arthroscopy, his other interests include fractures, lower extremity deformities, and most other pediatric orthopedic conditions.



Dorothy Y. Harris, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Harris completed her residency in Orthopedic Surgery at UT Medical Branch, Galveston and most recently served as a clinical fellow in Pediatric Orthopedic Surgery at Texas Children's Hospital and Shriners Hospital for Children through Baylor College of Medicine.

Her areas of interest include cerebral palsy and neuromuscular disorders, fracture care, and lower extremity conditions and deformities. She is dedicated to improving outcomes for surgical patients and is actively involved in the National Surgical Quality and Improvement Program (NSQIP).

Dr. Harris sees patients at both the Texas Children's main campus and West Campus in addition to Health Centers located in Clear Lake and Cy-Fair.



John A. Heydemann, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Heydemann began his education in Houston as a student at Rice University and subsequently pursued post-graduate studies at the University of Texas Medical School at Houston earning his medical degree. He continued his Orthopaedic residency training at UT-Houston working at the Memorial Hermann, Lyndon B. Johnson, Methodist, and Shriner's Hospital systems. After residency, Dr. Heydemann furthered his education in Pediatric Orthopaedics at the Alfred I. duPont Hospital for Children in Wilmington, Delaware. Dr. Heydemann is interested in all areas within the Pediatric Orthopaedic subspecialty including: trauma, cerebral palsy, scoliosis, limb ceformities and skeletal dysplasias.

Dr. Heydemann has a strong research interest and has peer reviewed publications as well as presentations related to skeletal dysplasias, fractures, and other childhood conditions.



Jaclyn F. Hill, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine



Indranil (Neel) Kushare, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine During her pediatric orthopedic training, Dr. Hill developed an interest in the treatment of lower extremity congenital differences, leg length discrepancy, and complex deformities. At Texas Children's Hospital, in conjunction with Dr. Howard Epps, Dr. Hill developed a multidisciplinary limb deformity program that uses advanced techniques to treat complex orthopedic problems. Dr. Hill is involved in orthopedic clinical research as well as resident education. She hopes to play a role in training future doctors to help take care of our children.

After graduating from medical school at Baylor College of Medicine, Dr. Hill completed her residency in orthopedic surgery at the Harvard Combined Orthopedic Residency Program, and her fellowship at Boston Children's Hospital.

She is a member of the Pediatric Orthopaedic Society of North America, the American Academy of Orthopaedic Surgeons, the Ruth Jackson Orthopaedic Society, Alpha Omega Alpha Society, and the American Academy of Pediatrics, Orthopedic Section.

Dr. Kushare earned his medical degree from K.J. Somaiya Medical College and Research Center - Mumbai, one of the top medical schools in India. After finishing orthopedic residency and a Diplomate of National Board (DNB) in Orthopaedics he worked at B. J. Wadia Hospital for Children and later pursued a SICOT research fellowship at the Children's Hospital of Philadelphia. He continued his training with pediatric orthopedic fellowships at the Children's National Medical Center in Washington, D.C. and at Nationwide Children's Hospital in Columbus, Ohio. Prior to joining Texas Children's, Dr. Kushare completed an Orthopedic Sports Medicine Fellowship at MedStar Union Memorial Hospital in Baltimore, Maryland.

With experience covering high school, college, and professional teams in a variety of sports he has special interest in ACL reconstruction in the pediatric and adolescent athlete, patellar instability, cartilage problems, shoulder instability, elbow, shoulder, and ankle arthroscopy, as well as fracture management and general pediatric orthopedic conditions. His professional memberships include the Pediatric Orthopaedic Society of North America (POSNA), American Orthopaedic Society for Sports Medicine (AOSSM) and the Pediatric Orthopaedic Society of India (POSI).



Megan M. May, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. May specializes in sports medicine and pediatric orthopedic surgery. Her special interests include injuries in female athletes, anterior cruciate ligament (ACL) injuries, patellar instability, osteochondritis dissecans, and cartilage injuries.

Dr. May earned her medical degree from the University of Kentucky and completed her orthopedic surgery residency at Northwestern University. Following her residency training, Dr. May completed fellowships in pediatric orthopedic surgery at Cincinnati Children's Hospital and sports medicine at The Ohio State University.

Dr. May is a member of the American Academy of Orthopaedic Surgeons, the Pediatric Orthopaedic Society of North America, the American Orthopaedic Society for Sports Medicine, the Arthroscopy Association of America and the Ruth Jackson Orthopedic Society.



Scott D. McKay, MD

Medical Director, Orthopedics Texas Children's Hospital - West Campus Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. McKay specializes in injuries to the pediatric/adolescent athlete. He believes in shared decision making with his patients and their families when developing a customized treatment plan for their particular condition. In addition to arthroscopy, his other specific interests include clubfoot, scoliosis, and fractures.

He earned his medical degree from Baylor College of Medicine and completed his orthopedic residency at the University of Iowa Hospitals and Clinics, followed by fellowship at Children's Hospital of Philadelphia.

Dr. McKay is a certified bilingual health care provider at Texas Children's (Spanish) and enjoys annual volunteer pediatric orthopedic service in Colombia.

He belongs to the following professional organizations: Pediatric Orthopaedic Society of North America, American Academy of Orthopaedic Surgeons, DOCARE International, Harris County Medical Society, and the Arthroscopy Association of North America.



Nicole I. Montgomery, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Montgomery will begin seeing patients at Texas Children's Hospital in Summer 2017.

Dr. Montgomery earned her medical degree from the Rutgers New Jersey Medical School before completing residency in orthopedic surgery at Baylor College of Medicine. She went on to pursue a fellowship in pediatric orthopedic surgery at Texas Children's Hospital and is currently completing additional fellowship training in musculoskeletal oncology at MD Anderson Cancer Center in Houston.



Scott B. Rosenfeld, MD

Director, Hip Preservation Program Orthopedic Surgeon *Texas Children's Hospital* Associate Professor, Orthopedic Surgery *Baylor College of Medicine* Dr. Rosenfeld specializes in pediatric orthopedics, sports medicine, scoliosis, and hip disorders. His major area of interest and expertise is in childhood and young adult hip disorders and hip preservation. He is codirector of the Texas Children's Hip Preservation Program.

Board certified in orthopedic surgery, Dr. Rosenfeld received an undergraduate degree from Duke University and his medical degree from the University of Texas Health Science Center at San Antonio. He completed an internship in general surgery and a residency in orthopedic surgery at UT Southwestern Medical School in Dallas followed by fellowship in pediatric orthopedic surgery at Harvard Children's Hospital.

He is a member of the American Academy of Orthopaedic Surgeons, the Pediatric Orthopaedic Society of North America (elected to Board of Directors as a Junior Member-at-Large in 2016), American Academy of Pediatrics, Houston Orthopedic Society, and the Texas Orthopedic Association.



Katherine M. Schroeder, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Schroeder is an assistant professor in the Department of Orthopaedic Surgery at Baylor College of Medicine and specializes in pediatric orthopaedic surgery. Her major areas of interest are fractures, cerebral palsy, hip dysplasia and limb deformities. After receiving a bachelor's degree from the University of Maryland and a master's degrees from Columbia University, Dr. Schroeder earned her medical degree from the University of Texas- Houston. She completed residency in orthopaedic surgery at the University of Cincinnati and fellowship in pediatric orthopaedic surgery at Baylor College of Medicine.



Vinitha R. Shenava, MD

Orthopedic Surgeon Texas Children's Hospital Assistant Professor, Orthopedic Surgery Baylor College of Medicine Dr. Shenava specializes in pediatric orthopedics. Her areas of interest include clubfoot, lower extremity deformities, skeletal dysplasia, and fracture care.

Dr. Shenava earned her medical degree from the University of Kansas where she also completed her orthopedic surgery residency. Following her residency training, Dr. Shenava completed fellowships in orthopedic trauma at Flinders University Medical Centre in Bedford Park, South Australia and pediatric orthopedic surgery at Baylor College of Medicine.

She is an active member of the Pediatric Orthopaedic Society of North America and serves on the core curriculum committee.



Chris Pederson, MD

Director of Texas Children's Hand Program Plastic and Reconstructive Surgeon *Texas Children's Hospital* Professor, Department of Surgery, Orthopedics, and Pediatrics *Baylor College of Medicine*

Dr. William "Chris" Pederson, a highly-regarded pediatric hand surgeon, recently joined the Department of Surgery at Texas Children's Hospital. As director of the Texas Children's Hand Program, he has joint appointments in plastic surgery and orthopedic surgery at Texas Children's Hospital. His clinical interests include the management of vascular problems in the upper extremity, nerve injury and repair including brachial plexus, Volkmann's ischemic contracture, facial paralysis and microsurgical reconstruction of complex extremity defects.

A native Texan, he is an honors graduate of The University of Texas at Austin and received his medical degree from The University of Texas Southwestern Medical School in Dallas, Texas. He completed an internship and residency in surgery at The University of Texas Health Science Center in San Antonio, Texas. Pederson continued his medical education with training in plastic and reconstructive surgery at Duke University Medical Center in Durham, North Carolina and was a Christine Kleinert Fellow in hand surgery in Louisville, Kentucky. Following this, he completed a one-year fellowship in microsurgery at St. Vincent's Hospital in Melbourne, Australia. Pederson was previously on the faculty at Duke and subsequently served as chief of plastic surgery at the U.T. Health Science Center in San Antonio. He later joined Dr. David Green at The Hand Center of San Antonio. He was the Hand Surgery Fellowship Director at this center for the last 10 years and has helped train more than 80 hand surgeons in the last 25 years.

Pederson was elected president of the American Society for Reconstructive Microsurgery in 2005. He has also served on the executive council of the American Society for Surgery of the Hand and is currently vice president of the American Association for Hand Surgery. Pederson was named a director of the American Board of Plastic Surgery in 2013, and serves on the Combined Committee on Surgery of the Hand with members of the American Board of Orthopaedic Surgery. He is also on the executive council of the World Society for Reconstructive Microsurgery.

Pederson has authored more than 60 papers in peer-reviewed literature and 40 textbook chapters. He is an editor of the textbook "Green's Operative Hand Surgery," and serves on the editorial boards of the "Journal of Hand Surgery" and the "Journal of Reconstructive Microsurgery."



Adjunct Faculty



Chief of Staff Shriners Hospitals for Children -Houston Associate Professor Orthopedic Surgery Baylor College of Medicine



Associate Professor Orthopedic Surgery Baylor College of Medicine



Assistant Professor Orthopedic Surgery Baylor College of Medicine

Douglas A. Barnes, MD

Education

Medical School, Baylor College of Medicine, 1973 Internship, General Surgery, Baylor College of Medicine, 1975 Residency, Orthopedic Surgery, Baylor College of Medicine, 1978 Fellowship, Pediatric Orthopaedic Surgery, Alfred I. DuPont Institute, 1980

Interests

Pediatric orthopedics

Certifications

American Board of Orthopaedic Surgery

William M. Granberry, MD

Education

Medical School, Baylor College Of Medicine, 1986
Internship, General Surgery, Baylor College Of Medicine, 1987
Fellowship, Orthopedic Research, Baylor College of Medicine, 1988
Residency, Orthopedic Surgery, Baylor College Of Medicine, 1992
Fellowship, Orthopedic Foot and Ankle Surgery, Medical College of Wisconsin Washington University School of Medicine, 1993
Fellowship, Traumatology, Universität Klinik für Chirurgie, 1993

Interests

Acute and chronic ankle ligamentous injury, foot and ankle biomechanics, heel and midfoot pain and pediatric foot and ankle treatment

Certifications

American Board of Orthopaedic Surgery

Darrell Hanson, MD

Education

Medical School, Baylor College Of Medicine, 1995 Internship, General Surgery, Baylor College Of Medicine, 1996 Residency, Orthopedic Surgery, Baylor College Of Medicine, 2000 Clinical Fellowship, Spine Surgery, Washington University School of Medicine, 2001

Interests

Pediatric and adult spinal deformity, both scoliosis and kyphosis, and complex spine surgery including revision deformity surgery.

Certifications

American Board of Orthopaedic Surgery



Adjunct Faculty



Chairman Wilhelmina Arnold Barnhart Endowed Chair Joseph Barnhart Department of Orthopedic Surgery *Baylor College of Medicine* Professor of Orthopedic Surgery, Surgery, and Space Medicine

Baylor College of Medicine



Orthopedic Surgery, Institute for Academic Medicine Department of Orthopedic Surgery Orthopedics & Sports Medicine Houston Methodist Hospital

Tom R. Hunt III, MD, DSc

Education

Medical School, Vanderbilt University School of Medicine, 1986 Internship, General Surgery, Vanderbilt University Medical Center, 1987 Residency, Orthopedic Surgery, University of Kansas Medical Center, 1992 Fellowship, Hand, Upper extremity, Microsurgery, University of Pennsylvania, 1993 Doctor of Science, Health Services Administration, University of Alabama, Birmingham School of Health Professions, 2014

Interests

Deformities, arthritic deformities, nerve injuries, compression neuopathies, ligament injuries and complex disorders of the hand, wrist, forearm and elbow disorders.

Certifications

Subspecialty Certificate in Surgery of the Hand American Board of Orthopaedic Surgery Titleist Performance Institute Certification

Rex Marco, MD

Medical School, University of California at Los Angeles School of Medicine, 1992 Internship, General Surgery, Virginia Mason Medical Center, 1994 Residency, Orthopedic Surgery, University of California at Davis School of Medicine, 1998

Fellowship, Musculoskeletal Oncology, Memorial Sloan Kettering Cancer Center, 1999 Fellowship, Pediatric Orthopedic Surgery, Shriners Hospital for Children Chicago, 2000 Fellowship, Spine Surgery, Rush Presbyterian – Saint Luke's Hospital, 2000

Interests

Musculoskeletal oncology and spine tumors, adult and pediatric scoliosis, complex spine surgery and degenerative spine disorders.

Certifications

American Board of Orthopaedic Surgery



Advanced Practice Providers



Susannah Ferguson, PA-C Manager, Advanced Practice Providers



Layne Brown, PA-C



Yakima Brown, PA-C



Victoria Carr, PA-C



Danielle Comeaux, PA-C



Kolby Buckner, MPAS, PA-C



Tanisha George-Daugherty, MMS, PA-C



Stephanie Haldeman, PA-C



Advanced Practice Providers





Megan Huber, PA-C

Bensley Mathew, PA-C





Valerie Parrish, PA-C

Lisa Stringer, PA-C



Andrew P. Swenson, PA-C



Opal Willmon, PA-C

Texas Children's Hospital®

Christina Wood, FNP

Meet Our Musculoskeletal Team







Sports Medicine



Albert Hergenroeder, MD

Chief, Adolescent Medicine Service and Adolescent Medicine Clinic, Sports Medicine Clinic, and Young Women's Clinic Texas Children's Hospital

Professor of Pediatrics and Head of Adolescent Medicine and Sports Medicine Section Baylor College of Medicine



Joseph Chorley, MD

Sports Medicine and Adolescent Medicine Physician Texas Children's Hospital Associate Professor Baylor College of Medicine



Kristin Ernest, MD

Sports Medicine and Adolescent Medicine Physician Texas Children's Hospital Assistant Professor Baylor College of Medicine



Jorge Gomez, MD

Sports Medicine and Adolescent Medicine Physician Texas Children's Hospital Associate Professor Baylor College of Medicine



Daren Molina, MD

Sports Medicine and Adolescent Medicine Physician Texas Children's Hospital Assistant Professor Baylor College of Medicine

Physical Medicine and Rehabilitation

The Physical Medicine and Rehabilitation (PM&R) Clinics share physician specialists that assist with formulating a comprehensive rehabilitation plan for patients with a variety of diagnoses that result in functional limitations including developmental delay, acute or chronic neuromuscular problems, genetic disorders, torticollis, and limb deficiency. Chronic medical conditions that affect endurance, joint flexibility and rheumatologic disorders can potentially benefit from a PM&R consultation.



Aloysia Leisanne Schwabe, MD currently serves as an assistant professor at Baylor College of Medicine and as a physician of physical medicine and rehabilitation at Texas Children's Hospital. She began her training at the University of Texas Health Science Center at San Antonio for her medical degree and completed an internship in internal medicine from Mount Carmel Medical Center. In 1999, Dr. Schwabe completed her residency in Physical Medicine and Rehabilitation from Ohio State University College of Medicine and continued to complete a fellowship in pediatric physical medicine and rehabilitation at Texas Children's Hospital in 2000.

Pain Management

The Orthopedic Division at Texas Children's Hospital works closely with The Pain Medicine Division of the Department of Pediatric Anesthesiology to offer multidisciplinary, comprehensive pain treatment services for patients hospital-wide with a diverse range of pain concerns. Anesthesiologists work closely with surgeons, radiologists and other physicians to provide the most appropriate, evidence-based care for each child. This multidisciplinary, multimodal approach is used to prevent and alleviate suffering of children and advance the field of acute and chronic pediatric pain research.



Evelyn "Caro" Monico, MD currently serves on the faculty at Baylor College of Medicine and practices both as an anesthesiologist and pain medicine physician in the acute and chronic pain care settings at Texas Children's Hospital. She received her medical degree from the University of California San Francisco (UCSF) and completed her residency in anesthesiology at University of California Davis. She then completed a fellowship at Lucile Packard Children's Hospital at Stanford in Pediatric Anesthesiology and a second fellowship at Seattle Children's Hospital in Pediatric Pain Medicine. Her clinical and research interests include examination of the financial burden of chronic pain and health disparities. Dr. Monico is also the founder of Clinica Martin-Baro, a student-organized free clinic operating Saturdays out of the Mission District in San Francisco. The clinic's

mission is to promote wellness and address the health care needs of the underserved and economically disadvantaged Spanish-speaking community of the Mission District of San Francisco. The clinic provides access to free health care, psychotherapy, and health education in Spanish and in a culturally sensitive manner.



The Orthopedic Division at Texas Children's Hospital continues to provide the most advanced techniques and equipment used to treat orthopedic disorders. Texas Children's Department of Pediatric Radiology provides timely, comprehensive imaging procedures for pediatric patients as well as an unparalleled, collaborative research environment for both clinical and basic researchers.

Using the most up-to-date, technological imaging advances, Pediatric Radiology performs more than 180,000 procedures annually, making us one of the largest dedicated pediatric radiology centers in the country. The Radiology Department provides the most advanced techniques and equipment used to treat orthopedic disorders.

O-Arm Surgical Imaging System

In 2015, the division acquired the O-ARM Surgical Imaging System, a multi-dimensional surgical imaging platform designed for use in spine, orthopedic, and trauma-related surgeries. The O-ARM Surgical Imagine System provides real-time, intra-operative imaging of a patient's anatomy with high quality images and an expansive view in both two and three dimensions.



EOS Imaging System

The EOS Imaging System, a Nobel Prize winning technology, was installed at Texas Children's Hospital in 2015, making it the first pediatric institution in the southwest United States to offer its services. EOS is an innovative technology for orthopedic imaging of patients including those with scoliosis, joint replacements, back and leg pain. Unlike a traditional X-ray that captures one small area of the body, EOS provides a lifesize picture of the patient's full skeleton as they stand or sit comfortably. Research shows that this



technology enables more accurate diagnose and provides faster imaging. Full-body, upright and 3D images of the bone result in enhanced image accuracy and measurements, leading to more informed treatment planning and quality of care. Full body images are taken in less than 15 seconds with a total exam cycle under four minutes for the most complex spine exams, versus the standard 15 to 20 minutes. Additionally, patients receive lower radiation dosage with EOS. This machine uses up to nine times less radiation than a computed radiography X-ray and up to 20 times less than a CT scan, which is especially helpful to maintain the safety of pediatric patients who may need to be imaged frequently.





Siddharth Jadhav, MD Robert Orth, MD

Faculty Radiologist Body Radiology and Cardiac Imaging Sections Texas Children's Hospital Assistant Professor, Radiology Baylor College of Medicine Faculty Radiologist Body Radiology, Musculoskeletal and Nuclear Radiology Sections *Texas Children's Hospital* Assistant Professor, Radiology Baylor College of Medicine

Erica Schallert, MD

Faculty Radiologist Pediatric Radiology Musculoskeletal Section *Texas Children's Hospital* Assistant Professor, Pediatric Radiology Musculoskeletal *Baylor College of Medicine* Faculty Radiologist Body Radiology and Musculoskeletal Sections *Texas Children's Hospital* Associate Professor, Radiology Baylor College of Medicine

R. Paul Guillerman, MD J. Herman Kan, MD

Section Chief, Musculoskeletal Radiology and Director, West Campus Radiology Texas Children's Hospital Associate Professor Radiology Baylor College of Medicine



Herman Kan, MD

Dr. Kan is the head of musculoskeletal imaging at Texas Children's Hospital and associate professor of radiology at Baylor College of Medicine. His clinical experience is based in pediatric radiology. Dr. Kan is board certified in diagnostic radiology with additional subspecialty certification (CAQ) in pediatric radiology. Dr. Kan completed both a general pediatric radiology fellowship and a second year pediatric radiology fellowship with focus on musculoskeletal imaging. He performs all aspects of pediatric radiology in addition to multimodality imaging and interventional musculoskeletal imaging. He has authored or co-authored 49 peer reviewed manuscripts, and co-authored the textbook "Pediatric and adolescent musculoskeletal MRI: A case based approach." His current research and clinical interests include quantitative cartilage mapping techniques including DGEMRIC, T2 mapping, and T1rho mapping, and optimizing multimodality imaging clinical practice guideline for the care of pediatric and adolescent musculoskeletal and sports medicine injuries.



As one of the largest clinical genetics clinic in the country, Texas Children's Hospital Genetics Clinic strives to stay at the forefront of genetic research while offering families the latest diagnostic and clinical resources available. The clinic sees more than 3,000 families each year and has 18 board-certified medical geneticists, 3 board-certified genetic counselors and 6 genetic nurses. The Department of Molecular and Human Genetics at Baylor College of Medicine receives more grant support from the National Institute of Health than any other genetics department in the United States.

Genetics at Texas Children's Hospital works hand-in-hand with the Orthopedics Division. The group has a strong laboratory research program that centers on genetic and clinical studies in skeletal dysplasia and inborn errors of metabolism. Research is focused on understanding how gene mutations affect skeletal development and combines laboratory studies with clinical research to develop new treatment approaches for common diseases such as osteoporosis, osteoarthritis, and cancer.



Brendan Lee, MD, PhD is an internationally renowned geneticist and Chair of the Department of Molecular and Human Genetics at Baylor College of Medicine. He holds the Robert and Janice McNair Endowed Chair in Molecular and Human Genetics and is the founder and director of the Skeletal Dysplasia Clinic at Texas Children's Hospital. The overall mission of Dr. Lee's laboratory research program is to translate the study of structural birth defects and inborn errors of metabolism into a basic understanding of development, disease and novel therapeutic approaches. His research program is linked with clinical research that is performed as part of the Skeletal Dysplasia Clinic and the Metabolic Disorders Clinic at Texas Children's

Hospital. Dr. Lee also serves as a professor in the genetics department, as well as co-director of the Rolanette and Berdon Lawrence Bone Disease Program of Texas, a collaboration of Baylor and The University of Texas MD Anderson Cancer Center and as director of the Center for Skeletal Medicine and Biology at Baylor. Dr. Lee has a professional interest in developmental, translational and clinical studies of skeletal dysplasias and inborn errors of metabolism.

Education and Research





Baylor College of Medicine

Fellowship Programs

Pediatric Orthopedic Surgery Clinical Fellowship

The ACGME-accredited Pediatric Orthopedic Surgery MD fellowship program at Baylor College of Medicine includes broad-based exposure to all aspects of pediatric orthopedics. Six months of the fellowship are at Shriners Hospitals for Children, Houston and six months are at Texas Children's Hospital. The one-year fellowship offer multidisciplinary training including:

- Congenital and developmental abnormalities of the hand, hip, knee, and foot
- Brachial plexus and upper extremity congenital and acquired abnormalities
- · Limb deformity, deficiencies and prosthetic management
- Genetic, metabolic, and neuromuscular disorders
- Musculoskeletal infections
- Scoliosis and spinal deformity

The Texas Children's faculty currently consists of 17 full-time pediatric orthopedic surgeons (with planned expansion to 21 full-time faculty by 2017) and two adjunct pediatric spine surgeons involved in all areas of pediatric orthopedics. We offer Grand Rounds, journal club, preoperative conferences, and didactic lectures. Completion of at least one clinical research project leading to manuscript publication in a peer-reviewed orthopedics journal is required and two projects are strongly encouraged.

In 2016, the Division of Orthopedic Surgery at Texas Children's launched the nation's first **Physician Assistant Fellowship Program in Pediatric Orthopedic Surgery**. Two high-qualified physician assistants per year are selected to receive specialized training in pediatric musculoskeletal care.

Past Clinical Fellows

2016-2017

Jenifer Powers, MD Clinical Fellow, Baylor College of Medicine Zachary Stinson, MD Clinical Fellow, Baylor College of Medicine

2015-2016

Nicole Montgomery, MD Clinical Fellow, Orthopedic Oncology MD Anderson Cancer Center Katherine Schroeder, MD Assistant Professor, Baylor College of Medicine, Dept. of Orthopedic Surgery Attending, Texas Children's Hospital, Orthopedic Division

2014-2015

Dorothy Harris, MD Assistant Professor, Baylor College of Medicine, Dept. of Orthopedic Surgery Attending, Texas Children's Hospital, Orthopedic Division Henock Wolde-Semait, MD

2013-2014

Lindsay Stevenson, MD Pediatric Orthopedic Surgeon at Shriners Hospitals for Children, Houston Alex Betech, MD Assistant Professor, LSU Health, New Orleans

2010-2011

Julia A. Bulkeley, MD Private Practice (Roanoke, VA) Cameron D. Knight, MD Private Practice (Jackson, TN)

2000s

Tina L. Creekmore, MD Private Practice (Baton Rouge, LA) Mohan V. Belthur, MD Private Practice (Baltimore, MD) Alejandro Verdugo, MD Private Practice (Lubbock, TX) William K. Koeck, MD Private Practice (San Antonio, TX) Vinitha R. Shenava, MD Assistant Professor, Baylor College of Medicine, Dept. of Orthopedic Surgery Attending, Texas Children's Hospital, Orthopedic Division

Pablo G. Castañeda, MD

Division Chief of Pediatric Orthopedic Surgery, New York University Hospital for Joint Diseases **Mark A. Flood, MD** Private Practice (Tampa, FL) John T. Anderson, MD Attending, Children's Mercy Hospitals & Clinic (Kansas City, KS)

Idris S. Gharbaoui, MD Attending, Texas Orthopedic Hospital (Houston, TX) Mukta Vadhva, MD

1990s

Frank T. Gerow, MD Assistant Professor, Baylor College of Medicine, Dept. of Orthopedic Surgery Attending, Texas Children's Hospital, Orthopedic Division Marshall G. Baca, MD Private Practice (Carlsbad, NM) David I. Howie, MD Private Practice (Cleveland, TX) Allison C. Scott, MD Clinical Assistant Professor, Baylor College of Medicine, Dept. of Orthopedic Surgery Attending, Shriners Hospital for Children-Houston

My Pediatric Orthopedic Fellowship Story



Division Chief of Pediatric Orthopedic Surgery New York University, Hospital for Joint Diseases

In 2004, Dr. Pablo Castañeda served as a pediatric orthopedic surgery fellow at Texas Children's Hospital and Shriners Hospital for Children through Baylor College of Medicine.

"As a fellow I had the autonomy to make clinical decisions and truly make a difference in the lives of others. Yet, I never felt I was alone. I knew that help was always close at hand, this sense of support along with my independence provided a unique opportunity for learning and professional growth."

While at Texas Children's Hospital, Dr. Castañeda had the opportunity to work closely with Dr. William Phillips, who became a good friend and mentor. His mentorship led Dr. Castañeda to begin a number of research initiatives which have

led to publications and acknowledgments both locally and internationally. In addition, Dr. Castañeda sought membership in professional societies including the Pediatric Orthopaedic Society of North America (POSNA) which has served as a platform for presenting his research as well as learning and networking.

Dr. Castañeda attributes the balance of clinical work and excellent teaching opportunities he received at Texas Children's and Shriners as the basis for his own pediatric orthopedic practice. Throughout his pediatric orthopedic surgery fellowship he learned the importance of teamwork focused on patient care which has greatly influenced his professional development.

"My fellowship experience at Texas Children's showed me that the opportunity for learning can be found at every corner and as long as I stick to my principles and remember that nothing is more important than taking care of patients my personal satisfaction will always be high."

Pediatric Orthopedic Surgery Research Fellowships

Texas Children's Hospital / Baylor College of Medicine Orthopedic Surgery Research Fellowship: one-year funded opportunity available to U.S. and international orthopedic surgeons and trainees who have an interest in pediatric musculoskeletal clinical research. Fellows are able to hone skills in research methodology and participate in ongoing clinical research projects in a subspecialty area or areas of their interest.

Texas Children's Hospital / SICOT Research Fellowship: The Division of Orthopedics collaborates with the International Society of Orthopaedic Surgery and Traumatology (SICOT), to offer a one-year funded research fellowship for SICOT members. Fellows engage in clinical research within the field of pediatric orthopedics and submit projects for peer review publication.

SICOT meets SICOT (SMS) Observership: The Division of Orthopedics collaborates with the International Society of Orthopaedic Surgery and Traumatology (SICOT) to offer members of SICOT the opportunity to pursue a one or two-month long observership with our faculty at Texas Children's Hospital. SMS Observers are afforded diverse exposure to all fields of pediatric orthopedic surgery.

Visiting International Scholar Program (VISP): Under the scholar program, the Division of Orthopedics invites 1-2 international fellows, doctors or health care providers per year to visit the hospital and shadow our orthopedic surgeons in month-long rotations.

Research

The Texas Children's Hospital Division of Orthopedic Surgery Research Team seeks to improve pediatric orthopedics through quality clinical and basic science research. We currently have **more than 25 projects** evaluating hip deformities, musculoskeletal infections, trauma, clubfoot, bone cysts, spinal deformities and a full range of orthopedic abnormalities. Our involvement in these projects ranges from internal research to multi-centered projects with various institutions across the U.S. and Canada.

Vision

To be nationally and internationally recognized for our scientific discoveries and innovation, with special emphasis on the diverse health issues affecting pediatric populations with musculoskeletal problems.

Mission

To impact pediatric orthopedic care both regionally and globally through research and education that inform health policy and healthcare delivery.

Research Staff & Fellows

Our clinical research team supports faculty investigators and is comprised of a Research Director, Research Coordinator, two Research Assistants, and Research Fellows.

Ifeoma Inneh, MBA, MPH | Research Director

Ifeoma joins us from New York (NYU Hospital for Joint Diseases) and has over eight years of expertise in the field of Orthopedics focusing on quality improvement, patient safety & outcomes research. She currently holds faculty appointments both in United States and internationally in the areas of Biomechanics & Ergonomics, as well as Public Health and Policy.

Sha'Tia Brownell, MPH | Research Coordinator

Sha'Tia joins us from Michael E. DeBakey VA Medical Center. She has over five years of clinical research experience in the fields of outcomes research, chronic disease prevention, and health services research.

Theodora "Theo" Browne, BS | Research Assistant

Theo joins us from MD Anderson Cancer Center where she conducted research in the field of radiation oncology. She recently completed post-baccalaureate coursework at the University of St. Thomas in Houston and hopes to pursue a career in pediatrics.

Lee Haruno, BS | Research Assistant

Lee joins us from Baylor College of Medicine where he recently finished his third year of medical school. He aspires to pursue a career in pediatric orthopedic surgery following the completion of his medical degree in 2018.



From left: Ifeoma Inneh, Lee Haruno, Theo Browne, Sha'Tia Brownell

Selected Research

Multicenter Projects

Multicenter Prospective Cohort Study on Current Treatments of Legg-Calvé-Perthes Disease

Texas Children's Hospital PI: Rosenfeld | Partner: Texas Scottish Rite Hospital

The purpose of this study is to compare the results of different treatments for patients with LCPD disease. http://www.tsrhc.org/Perthes-Disease

Simple Bone Cysts In Kids (SBoCK)

Texas Children's Hospital PI: Shenava | Partner: Sick Kids Hospital of Toronto

This single blinded, multi-center randomized control trial compares the effectiveness of two treatment interventions for simple bone cysts: (1) curettage with puncture and (2) curettage with puncture followed by injection of tri-calcium phosphate Vitoss morsels, with the primary outcome of radiographic healing. http://www.sickkids.ca/Research/SBoCK/index.html

The Treatment of Progressive Early Onset Spinal Deformities: A Multi-Center Outcome Study

Texas Children's Hospital PI: Dormans | Partner: The Growing Spine Study Group (GSSG)

This multi-center study will evaluate the long-term clinical and radiographic outcomes of Early Onset Scoliosis (EOS) and other Early Onset Spinal and Chest Wall Deformities in a large population of patients. https://www.growingspine.org/research

Spine Program Implementation Effectiveness: Achieving Program Excellence (SPINE APEX)

Texas Children's Hospital PI: Rosenfeld | **Partner:** Children's Hospital of Colorado This 2-phase multi-center trial will focus on multi-stakeholder program development, implementation and evaluation using the Comprehensive Unit-Based Safety Program (CUSP) framework to improve the effectiveness of an existing process related to Surgical Site Infection (SSI) prevention.

Functional Studies for Skeletal Abnormalities in Rasopathies

Partner: Baylor College of Medicine Department of Molecular and Human Genetics The purpose of this study is to create a specimen (blood, tissue, urine) repository devoted to the study of RASopathies.

Regional Variations in Pediatric Musculoskeletal Infection

Texas Children's Hospital PI: Rosenfeld | **Partner:** Vanderbilt University School of Medicine and the CORTICES Study Group The purpose of this study is to determine the regional differences in the burden, epidemiology, severity, causative pathogens and variations in clinical practice of Musculoskeletal Infection.

Scoliosis Specific Exercises for at-risk mild AIS curves: A Multi-Site Preliminary Randomized Trial

Partner: Texas Scottish Rite Hospital

The purpose of this study is to investigate the feasibility and short-term effectiveness of scoliosis specific exercises as part of a multicenter randomized controlled trial in patients with mild AIS curves at the greatest risk of progression.

Internal Projects

Our research team at Texas Children's Hospital is actively engaged in a variety of internal research efforts with faculty investigators. Projects include retrospective, prospective, and quality improvement studies exploring the evaluation and treatment of musculoskeletal infections, perioperative management of common orthopedic conditions, and the use of the latest radiographic and imaging technology. Over the past few years, Division research projects and manuscripts have been published and presented in a variety of locations and sources including the American Academy of Orthopaedic Surgeons Annual Meeting, the Pediatric Orthopaedic Society of North America Annual Meeting, and the Journal of Pediatric Orthopaedics.



Texas Medical Center

The Texas Medical Center (TMC) is the **largest medical center in the world** and is located 10 minutes from downtown Houston.

The TMC is housed on 1,300 acres and is home to 54 nonprofit and government institutions, including 14 teaching hospitals, two medical schools, four colleges of nursing, a dental college, a college of pharmacy, and a college of optometry. Each year over **seven million patients** visit these institutions.

For more information, visit www.TexasMedicalCenter.com



CareFirst at Texas Children's

A new pediatric tower to meet the growing needs of our patients.

Surgical Operating Rooms - 2 Floors

Increase from 22 to 29 ORs, creating high acuity, high technology ORs Maximizes team sub-specialization and coordination of surgeries by activity

Intensive Care Unit - 6 Floors

Increases capacity to 129 beds Larger rooms, patient and family focused All ICUs are adjacent, including CVICUs

Heart Center - 7 Floors

All Critical Care units are co-located CVORs proximal to other high acuity ORs Maintains functionality of the Heart Center

Helipad

Enables transport of critically ill children



Texas Medical Center Locations

Clinical Care Center



• 17-story ambulatory building

- 8 operating rooms
- (7th floor)
- Academic Offices
- Surgery Clinics



- 20-story research facility
- 12 floors devoted solely to research



- 42 NICU beds
- 115 beds
- 70 acute care beds
- 4 operating rooms
- OB/GYN care
- Fetal Center & Maternal/Fetal Medicine

Per year

- 11,300+ admissions
- 34,000+ patient days
- 5,000+ births



- 21-story building
- 478 beds
- 234 special care beds
- 236 acute care beds
- 14 operating rooms

Per year

- 75,800+ EC visits
- 19,100+ admissions
- 147,300+ patient days



Full Service Community Hospitals

West Campus	
	 514,000 square feet Licensed for 96 beds; 44 beds in operation 4 operating rooms 12 ICU beds Per year 1,900+ admissions 7,600+ patient days 4,500+ surgeries 41,400+ EC visits

Coming in 2017!



- 548,000 square foot hospital
- 72 outpatient rooms
- 12 radiology rooms
- 25 emergency center rooms
- 32 acute care beds
- 28 intensive care beds (PICU/NICU)
- 4 operating rooms



1950s Texas Children's Hospital Opens

- Groundbreaking ceremonies are held May 23, 1951.
- Texas Children's Hospital opens 1954.
- Baylor College of Medicine and Texas Children's Hospital establish a teaching affiliation.
- Our first patient, 3-year-old Leigh Van Wagner, is admitted Feb. 1, 1954.
- Texas' first female pediatric surgeon, Dr. Benjy F. Brooks, joins Texas Children's.

1960s

Services and Specialties Expand

- Hospital services and specialties expand rapidly, with specialists added in cardiovascular disease, pediatric research, birth defects, learning disabilities, mental retardation, developmental problems, social services and leukemia and other blood disorders.
- Karen and Kimberly Webber are born joined at the chest in 1964. Texas Children's pioneering procedure to separate them establishes the hospital as a leader in pediatric care.
- Texas Children's becomes the first hospital to treat pediatric respiratory failure with home mechanical ventilation, allowing home treatment instead of prolonged years of hospital care.

1970s Hospital Continues to Grow

- The hospital expands to 331 beds, more than double its original 106.
- The first play therapy room opens.
- David, the "Bubble Boy", born in 1971 with an immune deficiency, is placed in a specially designed protective device where he plays, sleeps, eats and attends school. Study of his condition leads to significant contributions in the study of immune system disorders.



1980s

Breakthroughs and Milestones

- Outpatient visits more than quadruple
- First patient in the world receives biosynthetic growth hormone.
- Texas Children's Emergency Center is the first in the state to have 24-hour coverage by board-certified pediatric emergency physicians.

1990s

Expansion and Pioneering Procedures

- Texas Children's Hospital completes renovation of the Abercrombie Building (the original hospital) and construction of the Clinical Care Center and West Tower to become the largest freestanding pediatric hospital in the U.S. It has 456 operating beds and nearly 50 medical and surgical outpatient services.
- Texas Children's Hospital performs pioneering operations on conjoined twins and a 3-year-old liver transplant recipient.
- Texas Children's Hospital opens the largest bone marrow transplant unit in Texas.
- The nation's first pediatric health maintenance organization (HMO) is established by Texas Children's.

2000s

Expansion Fueled by Vision 2010

- U.S.News & World Report ranks Texas Children's Hospital among the nation's top pediatric hospitals from 2000-2009.
- Texas Children's begins an extraordinary \$1.5 billion expansion entitled Vision2010. It involves the expansion of the Feigin Center by seven stories, the construction of the Pavilion for Women, the construction of a full-service hospital in West Houston, and the construction of the Jan and Dan Duncan Neurological Research Institute.
- The 8-floor, 200,000 sq. ft. expansion of the Feigin Center is completed in 2009. The Feigin Center is Texas Children's hub of basic science research, housing more than 200 investigators and 600 researchers who lead innovative pediatric research across many disciplines.



West Tower, the Clinical Care Center and the Feigin Center were completed in 2001



2010 to Today at Texas Children's Hospital

Leading pediatric medicine locally and internationally

- Dr. Charles D. Fraser, Jr. is named surgeon-in-chief at Texas Children's Hospital in 2010.
- Texas Children's Hospital opens the Jan and Dan Duncan Neurological Research Institute (NRI), the world's first basic research institute dedicated to childhood neurological diseases in 2010.
- The new Texas Children's West Campus outpatient clinic building opens at I-10 and Barker Cypress in 2010; outpatient services become available in spring 2011.
- Texas Children's Pavilion for Women, which provides women, mothers and babies with a full continuum of high-quality, expert health care, opens its doors in 2011.
- In FY2013, Texas Children's has 3.2 million patient encounters and performs 26,000 surgeries.
- Texas Children's The Woodlands will open to outpatients in 2016 and as a full-service hospital in 2017.



Texas Children' Hospital Leadership



Mark A. Wallace, President and Chief Executive Officer

Mark A. Wallace was appointed president and chief executive officer of Texas Children's Hospital in 1989 at the age of 36. Under his leadership, Texas Children's Hospital has grown into one of the nation's largest and most comprehensive pediatric and women's health care organizations, garnering more than 3.2 million patient encounters annually, achieving international recognition as a referral center and ranking among the best pediatric hospitals in the nation.



Surgeon-in-Chief

Charles D. Fraser, Jr., MD

Dr. Fraser is Chief of Congenital Heart Surgery and Cardiac Surgeon In-Charge at Texas Children's Hospital, the nation's largest pediatric hospital. His academic appointments include Professor of Surgery and Pediatrics, Baylor College of Medicine and Adjunct Professor of Bioengineering at Rice University. Dr. Fraser holds

the Donovan Chair in Congenital Heart Surgery and the Clayton Chair at Texas Children's Hospital and has clinical appointments at Texas Heart Institute and The University of Texas at Houston. Dr. Fraser also serves as Director of the Adult Congenital Heart Surgery Program at the Texas Heart Institute.



Physician-in-Chief Mark W. Kline, MD

Dr. Kline was appointed chair of the Department of Pediatrics at Baylor College of Medicine and physician-in-chief of Texas Children's Hospital effective July I, 2009. Dr. Kline has served as head of the Section of Retrovirology in the Department of Pediatrics and chief of Texas Children's Hospital's Retrovirology Service since 1997 and is president

and founder of the Baylor International Pediatric AIDS Initiative (BIPAI) at Texas Children's Hospital. As president of BIPAI, Dr. Kline oversaw the establishment of an ambitious program that encompasses HIV/AIDS care and treatment and health professional education and training programs in nine African countries, as well as Mexico and Romania. BIPAI now provides HIV/AIDS care and treatment to more children than any other organization worldwide.



Anesthesiologist-in-Chief Dean R. Andropoulos, MD, MHCM

Dr. Andropoulos is Anesthesiologistin-Chief at Texas Children's Hospital, and Professor of Anesthesiology and Pediatrics, and Vice Chair for Clinical Affairs in the Department of Anesthesiology at Baylor College of Medicine. He is the editor of two textbooks and the author of more than

70 peer-reviewed publications.



Radiologist-in-Chief George S. Bissett III, MD

Dr. Bisset is chief and the Edward B. Singleton Endowed Chair of Pediatric Radiology at Texas Children's Hospital and Professor of Radiology at Baylor College of Medicine. His clinical experience is based in pediatric radiology. Dr. Bisset is board-certified in Pediatrics and Pediatric Cardiology by the American Board of Pediatrics.

Through the American Board of Radiology, he is a board-certified diplomate, with additional subspecialty certification (CAQ) in Pediatric Radiology. He performs all aspects of pediatric imaging.

Obstetrician/Gynecologist-in-Chief Michael A. Belfort, MD, PhD

Dr. Belfort is Chair of the Department of Obstetrics and Gynecology at Baylor College of Medicine and Obstetrician and Gynecologist-in-Chief of Texas Children's Hospital. A specialist in maternal-fetal medicine and fetal intervention, Dr. Belfort has most recently served as a professor in the

Department of Obstetrics and Gynecology at the University of Utah School of Medicine, Salt Lake City and also as the Director for Perinatal Research, Fetal Therapy and Obstetric Telemedicine at HCA Healthcare in Nashville.



Pathologist-in-Chief James Versalovic, MD, PhD

Dr. Versalovic leads the Department of Pathology and is the director of the Texas Children's Microbiome Center at Texas Children's Hospital. He is also the Milton J. Finegold Professor of Pathology & Immunology at Baylor College of Medicine where is he also vice chair for Molecular Pathology and Omics, Pathology & Immunology.



Voted the **Fastest Growing City in 2014** and ranking among Kiplinger's **10 Best Cities** for Young Adults (2010), it is the fourth largest city in the U.S. Touted as one of the best cities in the country to live, work and play, Houston is a thriving urban metropolis that supports some of the most vivid cultural arts and culinary scenes in the county. Houston's temperate climate sustains tropical vegetation and allows the city's residents an enviable outdoor lifestyle. Houston averages only 18 days per year with temperature of 32°F or less and 99 days with high temperatures of 90°F or more.





For more information on Houston and the surrounding area, including great side trips and weekend getaways, visit

www.VisitHoustonTexas.org

Houston at a glance...

- Low cost of living and affordable housing
- No state or local income taxes
- Expanding economy in diverse industries
- Multicultural population of more than 6.5 million
- More than 40 colleges and universities
- Permanent ballet, opera, symphony, and theater companies
- An "urban forest" with 350 parks and more than 200 green spaces and miles of bike trails
- NASA's Johnson Space Center
- 11,000 restaurants serving every type of cuisine
- Professional and college sports, including the Astros, Rockets, Aeros, Texans, and Dynamo
- Nearby beaches and lakes

To learn more, visit us online at **Texaschildrens.org/orthopedics**