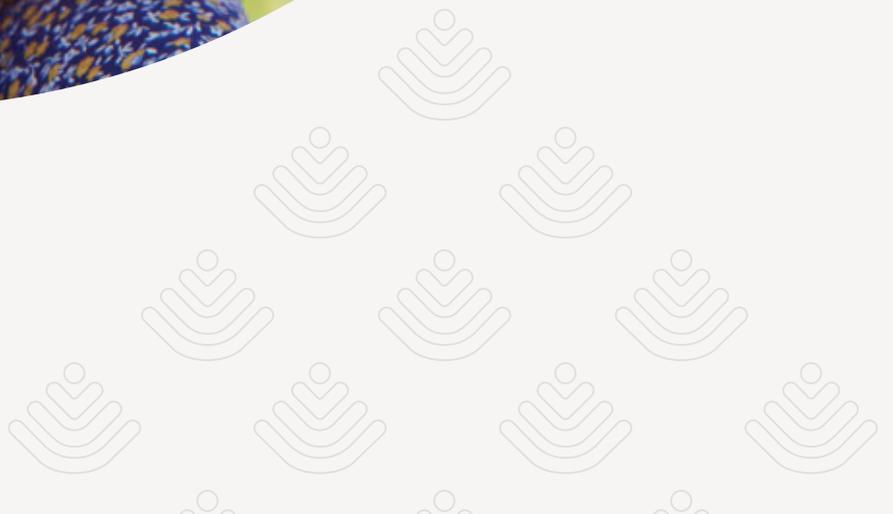




## Department of Surgery **SPOTLIGHT**

2020–2022

 **Texas Children's Hospital**<sup>®</sup>



Dear colleagues, parents and friends,

The past three years have been unlike anything we have ever experienced. Despite many new challenges, our team faced obstacles head on, finding ways to work together to meet the needs of our patients and their families.

This annual report is different than others you may have received from us. We are proud of our accomplishments throughout the last three years, and we want to showcase our highlights.

Our team completed more than 112,000 children's surgeries and procedures throughout 2020, 2021 and 2022 despite surgical restrictions at various points in the pandemic. We also cared for children at more than 660,000 clinic visits during this time.

We immediately launched virtual visits across all Texas Children's surgical specialties and adjusted our in-person visit scheduling and safety protocols. We continue to grow our technological capabilities to meet the needs of our patients and families.

Since our last report, we opened a floor dedicated to serving our adult patients with congenital heart disease, including a 16-bed inpatient unit, outpatient clinic, cardiac rehab gym, diagnostics lab and more. At the same time, our faculty focused on research programs to better understand wound healing, open new doors in fetal surgery, improve delivery methods for intracranial gene therapy, explore the molecular and genetic associations of urological conditions, and develop new pediatric devices and novel surgical oncology techniques. In addition, our Wound Care division, formalized in 2021, now provides a structure to grow and support wound care across the Texas Children's system.

I hope you enjoy reading about our outstanding team and their commitment to surgical excellence. I'm honored to work with these physicians and our passionate and talented colleagues.

With respect and gratitude,

A handwritten signature in black ink, reading "Larry Hollier". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

**Larry H. Hollier Jr., MD, FACS**

Surgeon-in-Chief & Chair  
Department of Surgery  
**Texas Children's Hospital**

## HIGHLIGHT

# Coming together in uniquely challenging times

Over the past three years, health care providers around the world and here at home were presented with unique challenges.

On March 22, 2020 at the onset of the COVID-19 pandemic, the governor of Texas paused all elective surgeries through April 23, 2020. The Department of Surgery and Perioperative Services leadership partnered with the Texas Children's Incident Command Center to develop algorithms to determine emergent, urgent and elective cases to comply with the order. We also rapidly implemented drive-through COVID-19 surveillance testing for all surgical patients to ensure the safety of our patients and workforce as well as preserve personal protective equipment. A team structure for the surgeons was employed to ensure adequate coverage was available in the event of exposure, and we consolidated clinic operations to the three hospital campuses.

Leaders in the surgical divisions and across the hospital rapidly scaled video visits in place of

in-person clinic visits to maintain patient care. In 2020, the Department of Surgery providers conducted over 18,500 clinic appointments via video visits, comprising about 20% of the appointment volume since the beginning of the pandemic. Based on benchmarking data from the Children's Hospital Association, the Texas Children's Department of Surgery recorded the most video visits of all reporting children's hospitals during the first year of the pandemic.

Our leadership participated heavily in the Phased Reopening and Redesign Command Center to safely and thoughtfully reopen and redesign our ambulatory, surgical and inpatient operations. The command center team worked to ensure our facilities were compliant with social distancing recommendations, surgical activity and in-person clinic activity were ramped up safely and touchless check-in processes for patients were implemented across services. By the end of 2020, the Department of Surgery returned to 80–85% of its pre-COVID-19 activity levels.



During 2020, the Department of Surgery providers conducted over 18,500 clinic appointments via video visits, comprising more than 20% of the appointment volume since the beginning of the pandemic.





## HIGHLIGHT

# Winter storm Uri 2021

A historic storm in February 2021 impacted power and water supplies throughout Houston, continuing to test the resilience and teamwork within the Department of Surgery. Despite these challenges, the department persevered and rose to the challenge, putting patients and families first. A few highlights of the department's accomplishments include:

- On day 4 of this crisis event, while still without water pressure and on emergency power in some locations, the Perioperative teams completed a heart transplant, a liver transplant, four C-sections and 17 other cases with compassion and efficiency.

- The sterile processing teams worked through standards to effectively and appropriately hand wash and process instruments with limited water pressure and a boil advisory in place, sharing best practices across campuses.
- West Campus was without water for even the most basic needs for four days. True resiliency was seen in the ORs, managing sterilization and appropriate scrub techniques.
- 23 surgical cases in danger of being canceled due to facility concerns were efficiently relocated to other ORs across the Texas Medical Center Campus. Information Services, Facilities Operations, Biomedical Engineering, EPIC support, Facilities Planning & Development, Pharmacy, Anesthesia and Perioperative Services all worked together to safely make this transition a reality in less than 24 hours.

- Team members and leaders from the department supported the conversion and operations of Hotel “W” in the Mark A. Wallace Tower, sleeping 200 to 400 employees Sunday through Thursday.

While the events above were significant, there are even more small stories of the team “doing the right thing” for patients and each other throughout the week. Many were on site and working remotely, including those who faced challenges at home with extended power outages, loss of water, broken pipes and flooding. Even amongst these difficulties, many put their own challenges aside to be available for patients.

We are exceptionally proud of everyone's can-do attitude and willingness to work together in the most trying of times.

#### In the clinics:

- Despite widespread power outages impacting patients, staff and providers, in-person appointments were converted to video visits. Clinical teams served over 275 patients via video visits during the week of the winter storm.
- As soon as it became safe to provide in-person services again, teams jumped into action, first reopening at The Woodlands campus on Friday (139 patients) and then launching the largest collective Saturday clinic for the department across all three campuses, seeing over 260 patients.





Texas Children's is one of the nation's largest and most comprehensive pediatric health organizations, with nearly 4.9 million patient encounters in 2022. Our patients and families are served by a staff of more than 15,000 employees and 2,000 physicians, advanced practice providers, pediatric subspecialists, pediatric surgical subspecialists and allied health professionals across more than 40 subspecialties.

We are proud to be consistently recognized as a leader in pediatric care, ranking second in the nation among the nearly 200 pediatric centers surveyed by U.S. News & World Report in their 2022-23 edition of Best Children's Hospitals.

Texas Children's is the highest-ranked pediatric hospital in the southwest, and the only pediatric hospital in Texas on U.S. News & World Report's Honor Roll of best children's hospitals. In 2022, Texas Children's Hospital ranked among the top 10 in all subspecialties by U.S. News & World Report.

Established in 1954 near downtown Houston, Texas Children's is located in the Texas Medical Center, the largest medical center in the world. This campus includes nearly 740 licensed inpatient beds; Mark A. Wallace Tower for outpatient visits; Feigin Tower for pediatric research; Texas Children's Pavilion for Women, a comprehensive OB/GYN facility with a focus on high-risk births; the Jan and Dan Duncan Neurological Research Institute, a basic science

## PARTNERSHIPS

# Texas Children's Hospital and Baylor College of Medicine

research institute dedicated to solving childhood neurological diseases; and the Lester and Sue Smith Legacy Tower, which houses state-of-the-art operating rooms and critical care facilities as well as the Texas Children's Heart Center.

To serve the greater Houston area, we built two freestanding community hospitals – Texas Children's Hospital West Campus and Texas Children's Hospital The Woodlands. These facilities bring an additional 160 licensed acute and critical care beds, two 24/7 pediatric emergency centers, full-service surgical suites and more than 20 subspecialty clinics each to communities in west and north Houston experiencing a rapidly expanding population of children.

We believe children should have access to health care in their local communities. Texas Children's Specialty Care brings subspecialty services to 7 community locations across Houston, and there are 10 Texas Children's Urgent Care locations in Houston to provide expert pediatric care after hours and on weekends. Texas Children's Pediatrics, the nation's largest primary pediatric care network, with 50 practices located throughout Houston and College Station.

In recent years, Texas Children's expanded our care to Austin to make it easier for families in these areas to access the high quality, affordable pediatric care and services they need. Texas Children's Hospital North Austin will open its doors in 2024 with a South Austin hospital location expected to open soon after. Currently, Austin is home to one

Texas Children's Specialty Care location in north Austin, 19 Texas Children's Pediatrics locations and one Texas Children's Urgent Care clinic.

Texas Children's is academically affiliated with Baylor College of Medicine in the areas of pediatrics, children's surgery, anesthesiology, pathology, radiology, and obstetrics and gynecology. Baylor College of Medicine is ranked by U.S. News & World Report as one of the nation's top 10 medical schools for pediatrics. Currently, and throughout our partnership, Texas Children's has served as Baylor's primary pediatric training site.

Physicians are employees of Baylor College of Medicine, not Texas Children's. Because they practice at Texas Children's, they may be referred to as "our team" or "Texas Children's physicians" throughout this report.

As a not-for-profit health care organization, Texas Children's is committed to creating a healthier future for children and women throughout the global community by leading in patient care, education and research. In addition to our children's hospitals and clinics, the organization also created Texas Children's Health Plan, the nation's first HMO for children; has the largest pediatric primary care network in the country, Texas Children's Pediatrics; Texas Children's Urgent Care clinics that specialize in after-hours care tailored specifically for children; and a global health program that's channeling care to children and women all over the world.



# Department of Surgery

The Department of Surgery at Texas Children's includes physicians and surgical advanced practice providers across 13 specialties: Congenital Heart Surgery, Dental, Dermatology, Global Surgery, Neurosurgery, Ophthalmology, Orthopedics, Otolaryngology, Pediatric Medicine and Rehabilitation, Pediatric Surgery, Plastic Surgery, Urology and Wound Care. In conjunction with our partners in Anesthesiology, Pediatric and Adolescent Gynecology and Transplant Services, we have more than 145 physicians, 135 advanced practice providers and 950 employees dedicated to ensuring children get the surgical and medical care they need.

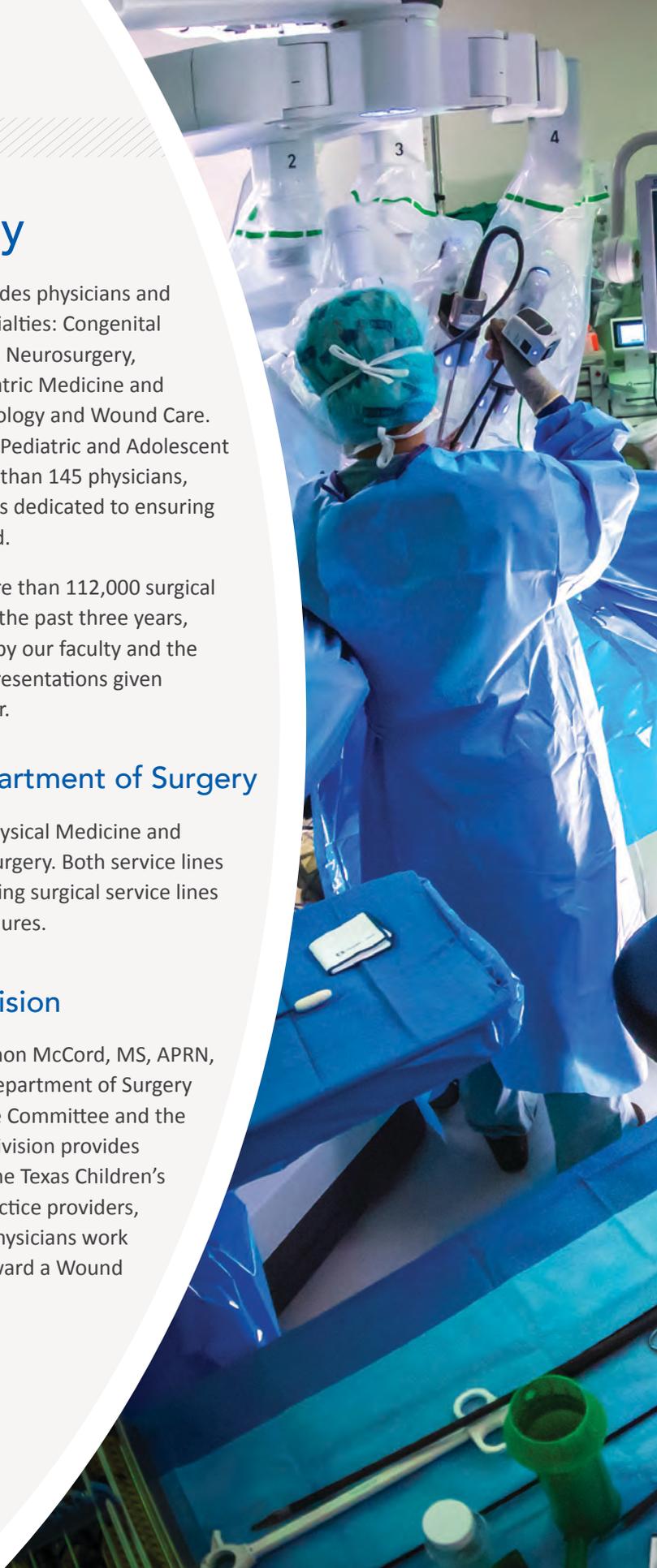
Our team's robust activities are reflected in the more than 112,000 surgical cases and procedures and 660,000 clinic visits over the past three years, the substantial external research funding obtained by our faculty and the many prestigious scholarly articles published and presentations given nationally and internationally by our team each year.

## New Specialties added to the Department of Surgery

In May 2022, medical divisions Dermatology and Physical Medicine and Rehabilitation became part of the Department of Surgery. Both service lines complement and work in partnership with the existing surgical service lines and use Perioperative Services resources for procedures.

## Wound Care becomes Surgical Division

Led by Ryan Krasnosky, PA-C, MPAS, PhD, and Shannon McCord, MS, APRN, CPNP-PC, CNS, the Division of Wound Care in the Department of Surgery was approved by Texas Children's Medical Executive Committee and the Hospital Board of Directors in July 2021. This new division provides structure to grow and support wound care across the Texas Children's system. An inter-professional team of advanced practice providers, wound and ostomy nurses, registered nurses and physicians work together to provide exemplary care as we strive toward a Wound Care Center of Excellence designation.





## Department of Surgery Leadership Updates

Over the last three years, we have welcomed new leaders for the Department of Surgery, our Surgical Divisions and at the Community Campuses in a surgical capacity.

### Department of Surgery Leaders

Veronica Victorian, DSMc, PA-C  
Vice Chair of Diversity, Equity and Inclusion

Anna Messner, MD  
Vice Chair of Academics

Allen Milewicz, MD  
Vice Chair of Business Operations

### Community Campus Leaders

Jeffrey S. Shilt, MD  
Community-In-Chief

Edward P. Buchanan, MD  
Chief Surgical Officer Austin

Stephen J. Canon, MD  
Chief Surgical Officer West Campus

Shawn J. Stafford, MD  
Chief Surgical Officer The Woodlands

### Division Service Chiefs

Jeffrey S. Heinle, MD  
Chief of Congenital Heart Surgery

Raegan D. Hunt, MD, PhD  
Chief of Dermatology

Sundeep Keswani, MD  
Chief of Pediatric Surgery

Ryan Krasnosky, PA-C, MPAS, PhD  
Chief of Wound Care

Aloysia L. Schwabe, MD  
Chief of Physical Medicine & Rehabilitation

Kimberly G. Yen, MD  
Chief of Ophthalmology

## Department of Surgery volumes 2020-2022

Surgical division	Clinic Visits			Operating Room Cases			Operating Room Hours		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Congenital Heart Surgery	1,370	1,270	1,368	969	958	1,024	5,679	5,761	5,871
Dental	3,412	3,718	4,077	1,471	2,670	2,601	1,962	3,444	3,243
Dermatology*	8,078	9,084	9,613	150	202	244	53	118	143
Neurosurgery	7,058	8,253	8,940	947	1,045	1,071	3,699	3,999	4,339
Ophthalmology	32,663	37,687	38,399	1,304	1,415	1,515	1,313	1,447	1,663
Orthopedic Surgery	57,584	64,085	65,552	3,274	3,646	3,742	8,127	8,562	9,177
Otolaryngology	52,312	53,018	62,165	10,720	9,507	13,674	8,165	7,902	9,475
Pediatric & Adolescent Gynecology*	12,368	12,887	11,840	306	363	332	589	684	606
Pediatric Surgery	13,370	15,096	15,135	6,096	6,384	6,645	9,728	10,546	10,132
Physical Medicine & Rehabilitation*	14,013	15,706	16,013	120	185	288	121	185	102
Plastic Surgery	14,909	18,035	18,945	1,498	1,749	1,932	2,859	3,286	3,567
Urology	18,870	20,085	21,016	2,694	2,639	3,004	3,996	4,068	4,488
Wound Care*	-	272	2,402	-	-	154	-	4	170

\*Pediatric and Adolescent Gynecology is a division of Obstetrics and Gynecology.

\*Wound Care formally became a Department of Surgery division in June 2021.

\*Dermatology formally became a Department of Surgery division in May 2022.

\*Physical Medicine and Rehabilitation formally became a Department of Surgery division in May 2022.

OR cases are defined as cases when OR staff and supplies are used. Cases with multiple procedures count as one case and are attributed to the service line of the primary surgeon. OR case volumes include procedures performed by Texas Children's, Baylor College of Medicine and private practice physicians at Texas Children's locations in both Houston and Austin. Clinic visits include outpatient visits by Texas Children's and Baylor College of Medicine faculty only.

# Department of Surgery volumes 2018–2022

Year	Clinic Visits	Children's Surgery Cases	Children's Surgery OR Hours
2018	212,487	37,203	50,822
2019	236,662	39,800	53,703
2020	201,548	34,165	50,006
2021	221,286	36,836	54,052
2022	237,999	41,533	58,028



## Surgical programs by division

The Department of Surgery has a robust offering of surgical and clinical services and is able to address the full spectrum of pediatric health conditions from the simplest to the rarest and most complex. See below for a list of programs, procedures and diagnoses across the department as well as the service chiefs leading each division.



Surgical Division	Programs / Procedures			Chief of Service
Congenital Heart Surgery	<ul style="list-style-type: none"> <li>• Adult Congenital Heart</li> <li>• Anomalous aortic origin of the coronary arteries</li> <li>• Aortic valve repair</li> <li>• Complex aortic reconstruction</li> <li>• Complex neonatal cardiac surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Heart transplant</li> <li>• Lung transplant</li> <li>• Pulmonary atresia with aortopulmonary collaterals</li> <li>• Pulmonary vein stenosis</li> </ul>	<ul style="list-style-type: none"> <li>• Single ventricle/ Norwood palliation</li> <li>• Tricuspid valve/ Ebstein repairs</li> <li>• Ventricular assist devices and mechanical support</li> </ul>	Dr. Jeffrey Heinle
Dental	<ul style="list-style-type: none"> <li>• Comprehensive dental care for special needs and medically complex patients</li> </ul>			Dr. Esther Yang
Dermatology	<ul style="list-style-type: none"> <li>• Acne</li> <li>• Atopic dermatitis</li> <li>• Benign skin growths</li> <li>• Birthmarks</li> <li>• Blisters</li> <li>• Diaper dermatitis</li> <li>• Drug rashes</li> <li>• Fifth disease</li> <li>• Fleas, mites and chiggers</li> <li>• Folliculitis, boils and carbuncles</li> </ul>	<ul style="list-style-type: none"> <li>• Impetigo</li> <li>• Lice</li> <li>• Molluscum contagiosum</li> <li>• Pityriasis rosea</li> <li>• Poison ivy</li> <li>• Ringworm</li> <li>• Scabies</li> <li>• Seborrheic dermatitis</li> <li>• Shingles</li> </ul>	<ul style="list-style-type: none"> <li>• Skin pigment disorders</li> <li>• Staphylococcal scalded skin syndrome</li> <li>• Sunburn</li> <li>• Tinea veriscolor</li> <li>• Toxic epidermal necrolysis</li> <li>• Warts</li> </ul>	Dr. Raegan Hunt
Neurosurgery	<ul style="list-style-type: none"> <li>• Chiari malformation</li> <li>• Craniofacial surgery</li> <li>• Endoscopic skull base surgery</li> <li>• Epilepsy surgery</li> <li>• Fetal surgery</li> <li>• Hydrocephalus and endoscopic surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Minimally invasive neurosurgery</li> <li>• Movement disorder surgery</li> <li>• Neuro-oncology brain and spinal tumor surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Responsive neurostimulation</li> <li>• Spina bifida</li> <li>• Spinal surgery</li> <li>• Stereotactic laser ablation</li> <li>• Tethered cord</li> <li>• Vascular neurosurgery</li> </ul>	Dr. Howard Weiner
Orthopedics	<ul style="list-style-type: none"> <li>• Bone health</li> <li>• Brachial plexus</li> <li>• Cerebral palsy</li> <li>• Clubfoot</li> <li>• Fracture</li> <li>• Gait/motion analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Hand</li> <li>• Hip preservation</li> <li>• Limb deformity and reconstruction</li> <li>• Limb lengthening</li> <li>• Orthopedic oncology</li> <li>• Skeletal dysplasia</li> </ul>	<ul style="list-style-type: none"> <li>• Spina bifida</li> <li>• Spine deformity and scoliosis</li> <li>• Spine tethering for scoliosis</li> <li>• Sports medicine</li> </ul>	Dr. Brian Smith

Surgical Division	Programs / Procedures			Chief of Service
Otolaryngology	<ul style="list-style-type: none"> <li>• Aerodigestive (including swallowing and dysphagia)</li> <li>• Cochlear implant</li> <li>• Multidisciplinary Complex Sleep Apnea Clinic</li> </ul>	<ul style="list-style-type: none"> <li>• Head and neck oncology</li> <li>• Speech pathology and audiology capabilities</li> <li>• Microtia and atresia</li> </ul>	<ul style="list-style-type: none"> <li>• Vascular anomalies</li> <li>• Voice</li> <li>• Skull base</li> <li>• Thyroid</li> </ul>	Dr. Anna Messner
Ophthalmology	<ul style="list-style-type: none"> <li>• Corneal diseases</li> <li>• Craniofacial abnormalities</li> <li>• Droopy eyelids (ptosis)</li> <li>• Glaucoma</li> <li>• Neurologic eye disorders</li> <li>• Ophthalmologic plastic surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Orbital problems</li> <li>• Pediatric cataracts</li> <li>• Retinoblastoma</li> <li>• Retinopathy of prematurity</li> </ul>	<ul style="list-style-type: none"> <li>• Strabismus (eye misalignment in children and adults)</li> <li>• Tear duct obstructions (blocked tear duct)</li> </ul>	Dr. Kimberly Yen
Pediatric and Adolescent Gynecology*	<ul style="list-style-type: none"> <li>• Colorectal and pelvic health</li> </ul>	<ul style="list-style-type: none"> <li>• Gender medicine</li> <li>• Oncofertility</li> </ul>	<ul style="list-style-type: none"> <li>• Young women's bleeding disorders</li> </ul>	Dr. Jennifer Dietrich
Pediatric Surgery	<ul style="list-style-type: none"> <li>• Aerodigestive disease</li> <li>• Adolescent bariatric surgery</li> <li>• Colorectal and pelvic health</li> <li>• Congenital diaphragmatic hernia</li> </ul>	<ul style="list-style-type: none"> <li>• Fetal surgery</li> <li>• Inflammatory bowel disease</li> <li>• Pectus</li> <li>• Robotic surgery</li> <li>• Short gut</li> </ul>	<ul style="list-style-type: none"> <li>• Surgical oncology</li> <li>• Thyroid surgery</li> <li>• Trauma</li> <li>• Vascular anomalies</li> </ul>	Dr. Sundeep Keswani
Physical Medicine and Rehab	<ul style="list-style-type: none"> <li>• Gait abnormalities</li> <li>• Hypotonia</li> <li>• Joint hypermobility</li> <li>• Limited joint range of motion</li> </ul>	<ul style="list-style-type: none"> <li>• Lymphedema</li> <li>• Mechanical neck and back pain</li> <li>• Motor delays</li> <li>• Muscle weakness</li> </ul>	<ul style="list-style-type: none"> <li>• Musculoskeletal-related conditions</li> <li>• Myofascial pain syndromes</li> </ul>	Dr. Aloysia Schwabe
Plastic Surgery	<ul style="list-style-type: none"> <li>• Brachial plexus</li> <li>• Breast</li> <li>• Cleft lip and palate</li> </ul>	<ul style="list-style-type: none"> <li>• Craniofacial/craniosynostosis</li> <li>• Craniofacial reconstruction</li> </ul>	<ul style="list-style-type: none"> <li>• Facial reanimation</li> <li>• Hand</li> <li>• Vascular anomalies</li> </ul>	Dr. Edward Buchanan
Urology	<ul style="list-style-type: none"> <li>• Biofeedback/pelvic floor therapy</li> <li>• Circumcision</li> <li>• Colorectal and pelvic health</li> </ul>	<ul style="list-style-type: none"> <li>• Gender medicine</li> <li>• Kidney stone</li> <li>• Oncofertility (male)</li> <li>• Robotic surgery</li> <li>• Spina bifida</li> </ul>	<ul style="list-style-type: none"> <li>• Urodynamics</li> <li>• Urologic oncology</li> <li>• Urology transition medicine</li> <li>• Voiding dysfunction</li> </ul>	Dr. Paul Austin
Wound Care	<ul style="list-style-type: none"> <li>• Animal bites</li> <li>• Burns</li> <li>• Fragile skin</li> <li>• Dermatopathologies</li> <li>• Hidradenitis</li> <li>• Pilonidal sinus/cyst/abscess</li> </ul>	<ul style="list-style-type: none"> <li>• Pressure ulcers</li> <li>• Soft tissue infections/abscess</li> <li>• Trauma</li> <li>• Wound debridement</li> <li>• Wound dehiscence</li> </ul>	<ul style="list-style-type: none"> <li>• Wound vacuum</li> <li>• Wounds in babies with congenital anomalies</li> </ul>	Dr. Ryan Krasnosky

## FEATURED DIVISIONS AND PROGRAM

### Congenital Heart Surgery

#### Adult Congenital Heart Program opens clinics and inpatient unit

In November 2020, Texas Children's Heart Center opened a 27,000-square-foot space dedicated to care for adult congenital heart patients. Located in the Lester and Sue Smith Legacy Tower, this new space includes a 16-bed inpatient unit, outpatient clinic, cardiac rehab gym, diagnostics lab and more.

This new facility is a game changer for this patient population. "Until now, patients have been managed somewhat ad hoc — either in pediatric environments or in adult environments with teams that are not particularly experienced in managing congenital heart defects," said Dr. Ed Hickey, surgical director of the program. "That's all changing here at Texas Children's. This vision that we've realized has come from the top down. The physicians at Texas Children's Heart Center are excited for the future of this program and providing the best possible care to adults with congenital heart disease."

#### New research opens the door to improved treatment options for congenital heart disease

A team of researchers from Texas Heart Institute, Texas Children's Hospital and Baylor College of Medicine have uncovered key differences among different types of congenital heart disease (CHD). The article "Integrated multi-omic characterization of congenital heart disease," published in *Nature*, represents the first reported single-cell genomics evidence of unique differences in heart muscle cells and immune systems of CHD patients. Their findings provide insights into the mechanisms causing the progression of the disease, help define clinical outcomes, and inform opportunities to devise personalized treatments.

### Record volume for VAD implants

The ventricular assist device (VAD) program led by Dr. Iki Adachi continues to be a national and international leader in providing care for children in need of mechanical cardiovascular assistance. Since January 2020, the team has implanted 57 durable VADs. Twenty-two VADS were implanted in 2022 — the highest annual volume of VADs implanted in the program's history.

### Otolaryngology

#### Texas Hearing Institute partnership

In January 2021, Texas Children's and Texas Hearing Institute began working together to provide a one-stop-shop in Greater Houston for children with hearing loss. As the most comprehensive resource for pediatric hearing loss in Texas, the nationally renowned Texas Hearing Institute is the only facility in the region that offers health services and spoken language education for children with hearing loss under one roof.

Through this partnership, Texas Children's expanded its services by opening a new Otolaryngology and Audiology Clinic at the Texas Hearing Institute. This clinic allows medical professionals, including ENT physicians and audiologists, to provide exceptional care with a comprehensive, integrated and streamlined approach to special patient populations.

#### New board certification program

Fifteen Texas Children's otolaryngologists recently passed the first-ever Complex Pediatric Otolaryngology (CPO) board exam created by the American Board of Otolaryngology — Head and Neck Surgery (ABOHNS). This subcertification underscores the special expertise the team maintains in caring for infants and children.

## Multidisciplinary programs

Texas Children's is well known for providing care to the most complex medical and surgical patients resulting in the best possible outcomes. This is due to the multidisciplinary approach we take to patient care. Teams from across the hospital come together to develop and coordinate treatment plans for our patients with cerebral palsy, epilepsy, Down syndrome, spina bifida, craniofacial and aerodigestive conditions and more.

### Skull Base Surgery Program recognized nationally

In November 2021, Texas Children's was the first pediatric hospital in the country to receive a "Multidisciplinary Team of Distinction" designation by the North American Skull Base Society (NASBS) - an honor only given to NASBS member institutions with multidisciplinary skull base surgery teams covering the spectrum of skull-base conditions. This first-in-the-nation recognition of excellence further enhances Texas Children's reputation as the country's premier destination for pediatric skull base surgery.

### USOPC National Medical Network

In 2020, the United States Olympic & Paralympic Committee (USOPC) announced the addition of Texas Children's to the USOPC National Medical Network. Texas Children's serves as a national medical center as well as the Official Pediatric Medicine Provider, offering expertise to Team USA athletes in coordination with USOPC medical practitioners.

In addition to joining the National Medical Network, Texas Children's committed additional resources to the USOPC's Technology and Innovation Fund, which was created to use the brightest ideas in technology and engineering to benefit Team USA's sports and athletes, will specifically support investments in pediatric medical innovations and services.



# Perioperative Services

## West Tower operating room expansion

Renovations of the West Tower ORs began in 2019, and after several pauses during the pandemic, continued throughout 2020 and 2021 and were completed in 2022. These renovations focused on updating and increasing the size of these ORs as well as creating a Central Sterile Processing Department space that accommodates the case cart process.

Operating room suites managed across the Texas Children's system include:

- 26 at Texas Children's Hospital in the Texas Medical Center
- 6 at Texas Children's Pavilion for Women
- 6 at Texas Children's Hospital West Campus
- 5 at Texas Children's Hospital The Woodlands

Most surgical suites are integrated with video, endoscopic, robotic or microscopic equipment. For specialized surgical interventions such as fetal, heart and transplant surgery, we offer highly customized equipment and ORs as well as specially trained support staff. Neurosurgery is often scheduled in Legacy Tower where OR1 has an adjoining MRI suite.

When children are too sick to be moved to an operating or procedure room, a mobile team, which includes a fellowship-trained pediatric anesthesiologist, travels throughout the hospital to perform bedside procedures.



# Transplant

For the sixth year in a row, in 2022 Texas Children’s performed the largest number of solid organ transplants in the nation with 99. Led by Medical Director Dr. John Goss, the team transplanted the most pediatric hearts, livers and lungs in the United States and the second largest number of kidneys in children in 2022.



## Transplant volume by year

Transplant Type	2020	2021	2022
Heart	30	35	29
Kidney	23	35	28
Liver	33	40	35
Lung	10	8	7
<b>TOTAL</b>	<b>96</b>	<b>118</b>	<b>99</b>

Additionally, the Transplant program recently hit three major milestones:

- 2,000 total solid organ transplants
- 500 heart transplants
- 20th anniversary of the Lung Transplant program

The staff offers a comprehensive, interdisciplinary approach through all aspects of the transplant

process, from initial referrals, which are accepted from around the world, to hospitalization and outpatient management. The pediatric transplant team – including transplant surgeons, immunologists, coordinators, dietitians, child life specialists, and social workers – works closely with patients, families and referring physicians to help make the evaluation process as convenient and efficient as possible.



# Trauma Services

In September 2020, Associate Surgeon-in-Chief Dr. David Wesson retired after 23 years of service at Texas Children's and Baylor College of Medicine. In honor of Dr. Wesson's many contributions to the field of pediatric trauma and injury prevention and the establishment of the Texas Children's trauma program, the program has been renamed as the David E. Wesson, MD Trauma Service.

Dr. Howard Pryor joined the Trauma team in June 2022 as Medical Director of Trauma Services. Dr. Pryor brings a wealth of experience from his military service as a trauma surgeon and previous positions at children's trauma centers.

The Texas Children's Trauma Center in the Medical Center was re-verified as a Level 1 trauma center by the American College of Surgeons in 2019. Our West Campus and Woodlands Campus Trauma Centers were designated as Level IV in 2020 and underwent redesignation surveys in October and November 2022.





# Research Awards and Grants

## Fellowship Award

Dr. Oluyinka Olutoye, Jr., a Baylor College of Medicine surgery resident, has been awarded a two-year fellowship in the National Heart, Lung and Blood Institute T32 training program working under Dr. Sundeep Keswani on research surrounding heart, lung and blood diseases.

## Department of Defense Career Development Award

Dr. Sarah Woodfield, a pediatric surgical oncology researcher in Pediatric Surgery, received a Department of Defense Career Development Award of \$642,000 over three years.

## Novel Mechanisms of Regenerative Tissue Repair

Dr. Sundeep G. Keswani received a four-year \$2 million RO1 grant for Novel Mechanisms of Regenerative Tissue Repair and an equipment supplement of \$116,110 on top of the new award.

## Enduring Hearts

Dr. Ravi Birla and Dr. Sundeep G. Keswani were awarded a two-year, \$150,000 grant from Enduring Hearts entitled “Human Cell-Derived Endomyocardial Tissue with Functional Cardiomyocytes and Microvasculature: An In Vitro Model for Elucidating Mechanisms of Ischemia-Reperfusion Injury as a Risk Factor for Cardiac Allograft Vasculopathy.”

## NIH Grant to Study Hirschsprung Disease

Dr. Lily Cheng received a K08 award from the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health to study bowel dysfunction in Hirschsprung disease. The project, funded for \$800,000 over five years, examines how biomechanical forces affect gastrointestinal function, particularly in the context of Hirschsprung disease which affects 1 in 5,000 babies.









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## Texas Children's brings its pediatric surgical expertise to Austin

Texas Children's – already the nation's largest and No. 1 ranked pediatric hospital in Texas – is growing with a new state-of-the-art hospital for children and women opening in 2024. Texas Children's Hospital North Austin – a 52-bed, full-service hospital, joins an array of Texas Children's services already available in Greater Austin communities, including a specialty care clinic and a maternal-fetal medicine clinic.

This new campus will fill the need for expanded pediatric, fetal, OB/GYN and advanced surgical care in the Central Texas area. It will feature a high-risk delivery unit with dedicated operating suites, surgeons and surgical staff committed to providing the most advanced care to children and women — from the simplest surgical procedures to the most complex. Every Texas Children's surgical division will be represented at our Austin Campus, and our teams will support the surgical needs of the hospital's centers and programs, which will include:

- Acute care
- Catheterization lab and interventional radiology
- Emergency center
- Epilepsy monitoring
- Fetal center for advanced interventions
- Heart Center
- High-risk delivery unit
- Neuroscience center
- Pediatric, neonatal and cardiac intensive care
- Sleep center
- State-of-the-art diagnostic imaging

# Houston

## 1 Texas Children's Hospital

6701 Fannin St  
Houston, TX 77030  
832-824-1000

## 2 Texas Children's Hospital The Woodlands

17580 Interstate 45 South  
The Woodlands, TX 77384  
939-267-5000

## 3 Texas Children's Hospital West Campus

18200 Katy Freeway  
Houston, TX 77094  
832-227-1000

## 4 Specialty Care Kingwood Glen

19298 W. Lake Houston Pkwy  
Humble, TX 77346

- Specialty Care, Ste 110  
281-812-0280
- Outpatient Therapy, Ste 220  
832-828-4900
- Sports Therapy, Ste 240  
832-828-4990

## 5 Specialty Care Cy-Fair

11777 FM 1960 Rd West  
Houston, TX 77065  
281-469-4688

## 6 Specialty Care Sugar Land

15400 Southwest Freeway, Ste 200  
Sugar Land, TX 77478  
281-494-7010

## 7 Specialty Care Upper Kirby

3023 Kirby Dr, Ste 201  
Houston, TX 77098  
713-533-9016

## 8 Specialty Care Clear Lake

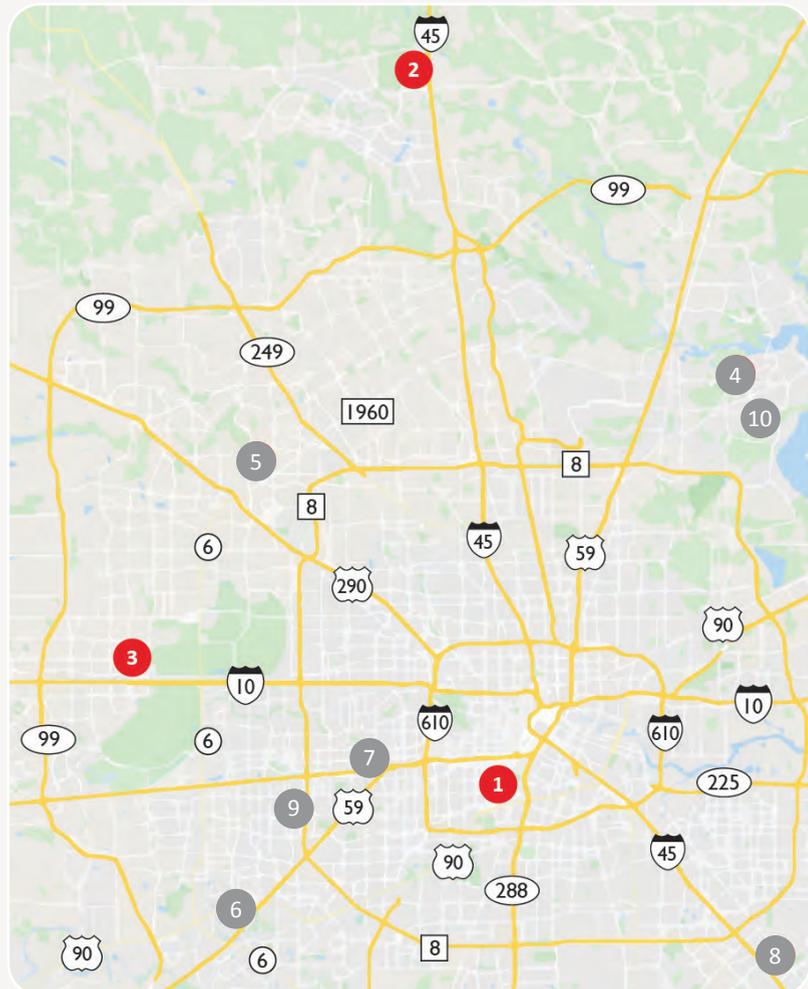
940 Clear Lake City Blvd, Ste 200  
Webster, TX 77598  
281-282-1900

## 9 Specialty Care Bellaire

6330 West Loop South, Ste 300  
Bellaire, TX 77401  
713-839-0164

## 10 Specialty Care Eagle Springs

5514 Atascocita Rd, Ste 190  
Humble, TX 77346  
281-666-500



## Austin

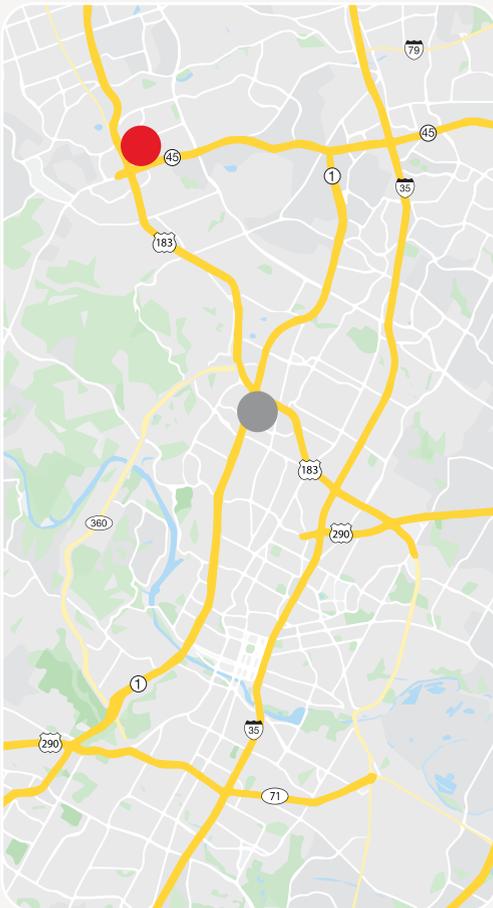
### Texas Children's Hospital North Austin Campus

(Opening 2024)

9835 North Lake Creek Pkwy  
Austin, TX 78729

### Specialty Care Austin

8611 N. MoPac Expressway, Ste 300  
Austin, TX 78759  
737-220-8200



Surgical care for select divisions is also provided at Texas Children's Specialty Care Austin.

Learn more at [texaschildrens.org](https://www.texaschildrens.org)

## Same day appointments available

Texas Children's Department of Surgery provides care for children in the Greater Houston area and Austin and for children from all 50 states and over 60 countries around the globe. To learn more about the Department of Surgery, visit [texaschildrens.org/surgery](https://www.texaschildrens.org/surgery).

To help meet the needs of our patients, we offer same-day surgical consultation appointments for each of the following surgical divisions: Ophthalmology, Orthopedics, Otolaryngology, Pediatric Surgery, Plastic Surgery, Urology and Wound Care.



To make an appointment, call **832-TCH-APPT (832-824-2778)**.

For additional appointment information or to speak with a division administrator about same day appointments, please call:

Division	Phone Number
Ophthalmology	832-822-3230
Orthopedics	832-822-3100
Otolaryngology	832-822-3250
Pediatric Surgery	832-822-3135
Plastic Surgery	832-822-3180
Urology	832-822-3160
Wound Care	832-822-3180



## How to refer

To refer a patient, visit [texaschildrens.org/refer](https://texaschildrens.org/refer), select Refer a Patient, select specialty, then complete and submit our online referral form. Supporting records can also be uploaded using our online form.

## Referring provider resources

If you are a referring provider's office needing referral assistance or a provider needing to speak to an on-call specialist, please contact the **Provider Connect** team **832-TCH-CARE (832-824-2273)** or toll-free at **877-855-4857**, M–F 8am–5pm, excluding holidays. After hours, follow the prompts to be directed to a resource that can quickly connect you with the appropriate provider. For non-urgent questions, feel free to email us at [providerconnect@texaschildrens.org](mailto:providerconnect@texaschildrens.org).



### Provider Connect

**832-TCH-CARE (832-824-2273)**

or toll-free at **877-855-4857**

M–F 8am–5pm



Texas Children's  
Hospital



**Texas Children's  
Hospital<sup>®</sup>**

[texaschildrens.org/surgery](https://texaschildrens.org/surgery)

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