

PUTTING PATIENTS FIRST

We are so proud of the care that our team provides for pediatric patients and their families. In this summer issue of Progress Notes, you'll find an abundance of patient stories and ways that our team has made a life-changing difference. We are so happy to be able to share these.

We are also pleased that UC Davis Children's Hospital is included in Newsweek's national ranking of America's Best Children's Hospitals in 2025. Our hospital is the only hospital in Sacramento to be recognized.

In other news, we wanted to provide a warm welcome to our newest members of the team, including Kacie Merrick, our new senior director of development for UC Davis Children's Hospital and program director for the Children's Miracle Network (CMN) at UC Davis. We want to send a big thank you to our CMN team that continues to raise funds locally in our community to support the groundbreaking research, programs, equipment and patient care that we depend upon for our patients.

Take care and happy summer!

Satyan, Diana and Brenda



Newsweek names UC Davis Children's Hospital one of America's best

[UC Davis Children's Hospital](#) has been named one of America's Best Children's Hospitals for 2025 by Newsweek magazine and Statista, a global market research and consumer data firm.

The ranking recognizes the leading children's hospitals in the United States across eight pediatric fields. It features the top 50 children's hospitals for cardiology and cardiac surgery, endocrinology, gastroenterology and gastrointestinal surgery, neonatology, neurology and neurosurgery, oncology, orthopaedics and pulmonology.

UC Davis Children's Hospital was ranked 39th nationally in neonatology, 34th in cardiology and cardiac surgery and 34th in neurology and neurosurgery. UC Davis Children's Hospital is the only hospital in Sacramento to be recognized.

"Our team is privileged to provide world-class care every day to children and families here in the Sacramento region and beyond," said Brenda Chagolla, associate chief nursing officer at [UC Davis Health](#). "We are honored to receive this recognition from Newsweek." [READ MORE »](#)



RESEARCH SPOTLIGHT

Can pediatric e-consults improve access to specialty care?



Study shows direct communication between primary care physicians and specialists supports more timely care.

There is a nationwide shortage of pediatric specialists, delaying care for many patients. In some cases, children wait weeks or even months for appointments. But now, in a study published in the journal [Clinical Pediatrics](#), researchers at [UC Davis Health](#) show that e-consults — in which primary care pedia-

tricians have direct access to specialists — improve care for young patients.

Securely routed through the hospital's electronic health record (EHR), e-consults are asynchronous "meetings" between primary care physicians and specialists to discuss a patient's care. Once the primary provider receives the consult, they report next steps back to patients and their families.

"The pediatric specialist shortage can lead to longer wait times and poor health outcomes, especially for children with complex chronic conditions," said [Ulfat Shaikh](#), professor of [pediatrics](#) for UC Davis Health, medical director of [Healthcare Quality](#) and first author on the study. "With e-consults, primary care physicians can ask for a second opinion, mitigating the need for families to make an in-person appointment with that specialist." [READ MORE »](#)

New study: U.S. preschoolers exposed to broad range of potentially harmful chemicals



Findings concern researchers because early childhood is a critical period for brain and body development

A national [study published](#) in Environmental Science & Technology finds children aged 2 to 4 years in the United States are routinely exposed to a broad range of potentially harmful chemicals. Many of the chemicals the researchers identified are not routinely monitored and may pose health risks.

The research was conducted by multiple institutions across the United States in coordination with the Environmental influences on Child Health Outcomes ([ECHO](#)), a program supported by the National Institutes of Health ([NIH](#)).

The researchers analyzed urine samples from 201 children aged 2 to 4 years. They tested for 111 chemicals. Their study found:

- 96 chemicals were detected in at least five children.
- 48 chemicals were found in over half of the children.
- 34 chemicals were detected in more than 90% of children — including nine chemicals not currently tracked in national health surveys like the National Health and Nutrition Examination Survey ([NHANES](#)).

“Our study shows that childhood exposure to potentially harmful chemicals is widespread. This is alarming because we know early childhood is a critical window for brain and body development,” said [Deborah H. Bennett](#), lead author and UC Davis professor in the [Department of Public Health Sciences](#). “Many of these chemicals are known or suspected to interfere with hormones, brain development and immune function.” [READ MORE »](#)



Addressing diarrhea in pediatric kidney transplant patients

Nephrologists must walk a tightrope between maintaining adequate immunosuppression and preventing infection

Diarrhea is an occasional, and uncomfortable, fact of life. For most people, it clears in a day or two, and they can go on with their normal lives. But for kids who have just received a kidney transplant, diarrhea can be a life-threatening condition.

A paper published in the journal [Pediatric Nephrology](#) details how diarrhea can impact pediatric transplant patients and offers potential clinical responses. [Lavjay Butani](#), chief of the [Division of Pediatric Nephrology](#) and Machi Kaneko McBee, assistant professor of [Clinical Pediatrics](#), are co-authors of the paper.

“Pediatric nephrology at UC Davis has been developing protocols to standardize care for our transplant patients, including for diarrhea,” McBee said. “Unfortunately, when we did the literature search, we couldn’t find much. We felt it was important to get this information out there because it has a direct impact on patients’ health and well-being.”

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The surprising role of a key pressure-sensing protein in gut health

Study finds Piezo1 protein helps regulate movement of food through intestines

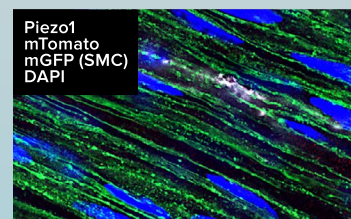
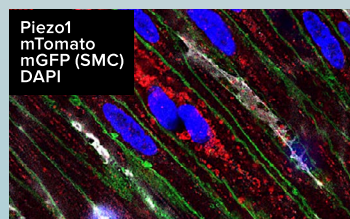
A groundbreaking study has revealed that a pressure-sensing protein known as Piezo1 plays a critical role in supporting gut health. The study’s findings may unlock new routes for understanding and treating complex gut disorders.

The protein acts like an internal sensor in the gut’s smooth muscle cells. It helps the intestines know when and how to move food through the digestive system.

The gut is mechanically very active. Its digestive tract constantly contracts and relaxes. The rhythmic contraction of smooth muscle cells helps break down food and absorb nutrients. Disruptions to this process lead to a range of [gut motility disorders](#).

But how do muscle cells in the gut know when to contract?

That is the question UC Davis and UCLA researchers set out to answer through a series of tests in mouse models. They focused their study on Piezo1. Their [work](#) was published in Communications Biology. [READ MORE »](#)



UC Davis pediatric neurosurgeon receives national award for hydrocephalus research

The Hartwell Foundation Award will fund the development of a gene therapy to treat blood and fluid buildup in newborns' brains

Hydrocephalus is a potentially fatal disease caused by the buildup of fluid in the brain. It results in abnormal brain pressure and injury to brain tissues. This disease is relatively common in premature babies and occurs in 1 in 1,000 live births.



Even with the best treatment options, the disease can lead to lifelong mental, cognitive and physical challenges and substantial costs.

UC Davis pediatric neurosurgeon Cameron Sadegh is working to change this outcome. He is developing a gene therapy that might improve quality of life for babies with hydrocephalus and other brain fluid disorders.

Sadegh is an assistant professor and physician-scientist in the Department of Neurological Surgery. **His lab** is at the [Institute for Pediatric Regenerative Medicine](#) in [Shriners Children's- Northern California](#).

Sadegh was recently selected to receive a [2024 Hartwell Individual Biomedical Research Award](#) from [The Hartwell Foundation](#). This award funds early-stage, innovative biomedical research that benefits children in the United States. [READ MORE »](#)

Sara Aghamohammadi named 'Top 50 Women Leaders of Sacramento'

UC Davis chief wellness officer and pediatric critical care physician Sara Aghamohammadi has been named a top leader by the group "Women We Admire."

The publication identified Aghamohammadi as the sixth entry in its "Top 50 Women Leaders of Sacramento for 2025" list.

On its website, Women We Admire wrote: "Aghamohammadi has been passionate about clinician health and well-being since her residency and fellowship training. Through her own experience of burnout and post-traumatic stress in her early faculty career, she reignited her passion and advocacy for clinician wellness."

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Nurses honored with DAISY Award

PJ Maniquis, a Pediatric Intensive Care Unit and Pediatric Cardiac Care Unit nurse, was presented with a DAISY Award for the exceptional kindness and care he provided to a patient and her family. PJ's attentiveness and above-and-beyond care brought comfort and healing to a family when they needed it most.

Melissa Barbato, fetal care nurse coordinator at the UC Davis Fetal Care and Treatment Center, was honored with a DAISY Award. She was nominated by a fetal care patient family that was grateful for her help.

The DAISY Award honors nurses who demonstrate excellence in clinical and compassionate care.



Diana Farmer receives lifetime achievement award

Diana Farmer was honored at this year's Cellular Therapies and Transfusion Medicine in Trauma and Critical Care (CTTACC) Lifetime Achievement Awards, in recognition of her contributions to the field of cellular therapies. Farmer is an internationally renowned fetal and neonatal surgeon, the Pearl Stamps Stewart Endowed Chair and the chairperson of the UC Davis Department of Surgery. She is also founder and co-director of the [Center for Surgical Bioengineering](#). She is the principal investigator of the CuRe trial, the first-of-its-kind clinical trial which combines fetal surgery with stem cells to treat spina bifida.



Infant is first in region to get innovative stent that grows with her into adulthood

A baby treated at [UC Davis Health](#) is the first in Northern California to receive a new stent designed for infants that grows as the patient grows. It can start at 6 millimeters in diameter and expand to 24 millimeters – large enough for an adult.

The [Minima Stent System](#), designed for narrowing or blockage of arteries specifically in infants, is the only Federal Drug Administration-approved system of its kind. It was exactly the right device for Lillian Hodgkin when she needed it most.

Lillian Hodgkin was born eight weeks premature, with DiGeorge syndrome, also known as [22q11.2 deletion syndrome](#), a genetic condition caused by a missing piece of chromosome 22. Patients like Lillian often have [Type B interrupted aortic arch](#), a congenital heart condition in which a portion of the aortic arch is missing and would need to be reconnected.

But Lillian's heart was even more unusual. "In my career of 33 years, I have never seen a heart anatomy like hers," said [Frank Ing](#), interventional cardiologist, chief of pediatric cardiology and co-director of the [UC Davis Pediatric Heart Center](#). [READ MORE »](#)

Pediatric cardiology team uses virtual reality to treat rare congenital heart defect



When Gita Fulwiler started struggling to get out of bed, her Fulwiler's cardiologist worried she might have [coronary artery disease](#). A computerized tomography (CT) coronary angiogram did not show any blockage but instead detected a congenital heart defect — despite Fulwiler being in her early 60s.

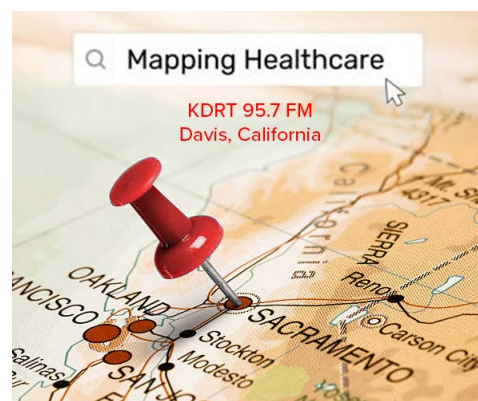
Normally, congenital heart defects are diagnosed during pregnancy or after birth, oftentimes because of obvious symptoms such as bluish skin, fatigue, a heart murmur or fast breathing.

Fulwiler's cardiologist referred her to [UC Davis Health](#) where she underwent a heart ultrasound, known as [transthoracic echocardiogram](#) (TTE). The TTE revealed a congenital heart defect, consisting of a rare form of [atrial septal defect](#) (ASD) known as a sinus venosus ASD associated with [partial anomalous pulmonary venous return](#) (PAPVR).

To explore a minimally invasive alternative to surgery, Fulwiler met with interventional cardiologist [Frank Ing](#), chief of [pediatric cardiology](#) at UC Davis Health. Though an adult, Fulwiler saw Ing because adult cardiologists are not trained to treat congenital heart defects.

"Dr. Ing sat with me for a long time, sharing a great amount of detail on how he could treat my condition," shared Fulwiler. "He showed me diagrams and walked me through the whole process."

Ing explained they would first need to close the ASD by implanting a large, covered stent anchored in the superior vena cava and extending down to the ASD. But it was not as simple as just plugging up a hole. They needed to cover the hole but also allow blood from the anomalous pulmonary veins to return properly to the left atrium. [READ MORE »](#)

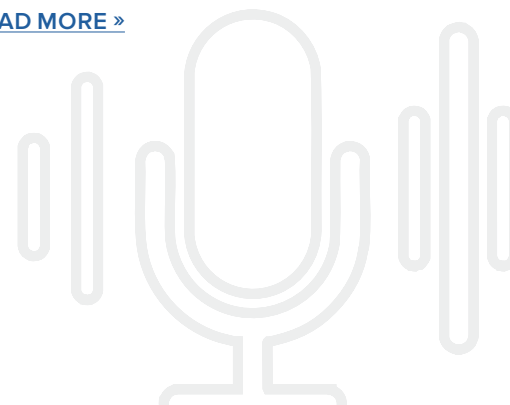


Pediatrician hosts health care podcast

UC Davis pediatrician, educator and researcher Ulfat Shaikh hosts Mapping Healthcare, a radio show and podcast where a medic with a map explores ways in which people around the globe make the world of health care better and what can be learned from them.

Find Mapping Healthcare on Apple Podcasts, Spotify, or wherever you get your podcasts.

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UC Davis nurse's cautionary tale of postpartum preeclampsia



UC Davis Health labor and delivery nurse Kristin Apicella welcomed a baby girl, Brooklyn, in September of 2021. She was thrilled.

When she and her baby went home, she settled into her new routine, which included the normal struggles after delivery. But then, five days postpartum, she developed a low-grade headache. Her blood pressure, which was usually low, was mildly elevated.

"It wasn't crazy initially, but I kept monitoring my blood pressure through the day and it just kept creeping up," Apicella said. "I still had a headache and some swelling in my feet, and when I took my blood pressure later that evening, it was in the severe range, so I decided to go to the ER near my home."

Apicella was soon diagnosed with a rare condition nearly identical to preeclampsia, only that it occurs after giving birth. [Postpartum preeclampsia](#) usually develops within 48 hours after birth but can appear up to 6 weeks or later postpartum. [READ MORE »](#)

Naturally conceived quadruplets born at UC Davis Children's Hospital

Experts say there's a 1-in-700,000 chance of quadruplets being conceived naturally. But the Delgado quadruplets were even more rare. There were three identical babies sharing one amniotic sack and a single baby in another. Each sack had its own placenta. That made this pregnancy one in a million.

It also came with significant risks, but Kayleen and Zeke were steadfast in the belief that they were meant to have all four babies. The couple put their faith in God and their trust in UC Davis Children's Hospital.

"Dr. McClennan and the team — including fetal sonographer, Nia Oliver — were awesome," Kayleen said. "We knew they were going to do everything they could to help us. They made us feel cared for."

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PATIENT MILESTONES

On dialysis for 7 years, local teen gets life-changing kidney transplant

When Justin was born, there were no indications that anything was wrong. But soon after his birth, doctors informed his mom that Justin was missing a vital organ: a kidney.

This condition, called unilateral renal agenesis, affects 1 in every 1,000 live births. It is not typically fatal and many people live normal, healthy lives. However, some do develop complications. Justin was one of those people. He was flown from Reno to UC Davis Children's Hospital at 4 days old.

Now 15, Justin has faced a series of struggles. His first kidney transplant as a toddler failed when he was 7 years old. He has been on dialysis 10 hours a day every day since.

But in June 2024, Justin got the news he'd been hoping for: there was a kidney available. He had surgery on June 16. One year and several follow-up appointments and labs later, there are no signs of organ rejection.

"The gift he was given is amazing. It came from God, a selfless family and UC Davis," Meliza said. "We are so grateful." [READ MORE »](#)



‘They gave our child a chance to live a normal life’

UC Davis pediatric otolaryngology surgeons helped an infant breathe on his own with a jaw-lengthening surgery.

Ryder Nunes was diagnosed with [Robin sequence](#), a rare condition in which an infant has a smaller than normal lower jaw and a tongue that falls back in the throat. One out of every 8,500 to 14,000 babies are born with the condition, which had gone undiscovered during pregnancy.

Robin sequence can cause an infant’s tongue to be pushed far back in the throat, prompting severe trouble breathing and swallowing without assistance. In severe cases, an infant will need a tracheostomy, a life-saving procedure where a surgeon opens a hole in the patient’s neck and connects a tube for unimpeded breathing.

To prepare for the procedure, Alex Marston, a pediatric head and neck surgeon and a member on the multidisciplinary [UC Davis Cleft and Craniofacial](#) team, [utilized a new technology called augmented reality](#), which is being used by some UC Davis Health surgeons.

Through augmented reality goggles, surgeons can project 3D computed tomography (CT) and MRI scans that overlay critical information directly into their field of view.

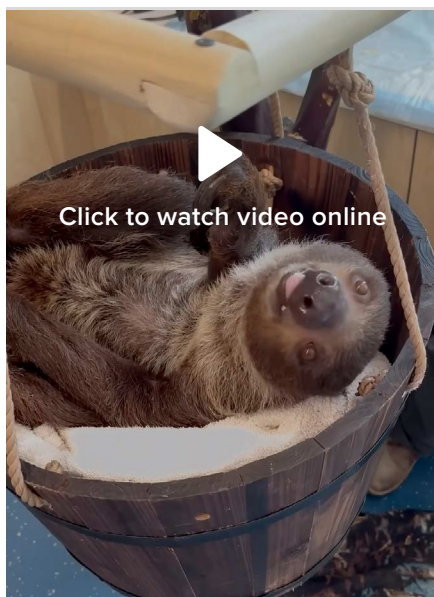
During the procedure, surgeons made a small incision under Ryder’s jaw on both sides of his neck. They cut his mandibular bone, commonly known as the lower jaw, on both sides to separate the front and back of the jaw.



The team placed two distraction devices on each side and attached them with pins to the front and back sections of the bone. Small activation arms were then connected to the distraction devices so that they could be turned and widen the cut mandibular bones.

A few days after surgery, the team maneuvered the activation arms to slowly move Ryder’s jaw forward, widening the space between the cut edges of the bone and allowing new bone to form in the space.

“We have the utmost gratitude for the UC Davis care team. They gave our child a chance to live a normal life,” said Katie Hunter, Ryder’s mother. [READ MORE »](#)



SeaWorld brings rescued animals to visit hospitalized children

Young patients at UC Davis Children’s Hospital experienced a heartwarming and educational visit, made possible through a special collaboration with SeaWorld San Diego.

The event featured a variety of rescued and rehabilitated “animal ambassadors.” These visitors provided patients, their families and hospital staff a rare opportunity to meet extraordinary wildlife up close, including a sloth, an alligator, a porcupine, and more.

SeaWorld representatives, alongside other wildlife experts, accompanied the animal ambassadors and shared their stories of rescue, rehabilitation and conservation. These animal ambassadors serve an important role in educating the public as part of SeaWorld’s ongoing commitment to wildlife preservation and environmental stewardship.

“We are so grateful to SeaWorld for coming by today to visit the kids,” said Diana Sundberg, manager of the UC Davis Child Life and Creative Arts Therapy Department. “It’s been an exciting morning. It’s hard to believe that you’d come into the hospital and have the opportunity to see an alligator or porcupine.” [READ MORE »](#)

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