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2023 YEAR IN REVIEW

Trauma and Burn Centers

At Children's Hospital Colorado



Children's Hospital
Colorado

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Welcome

Children's Hospital Colorado has two trauma centers. The first, an American College of Surgeons-verified Level 1 pediatric trauma center, is located at Children's Colorado, Anschutz Medical Campus, Aurora. The second, at Children's Colorado, Colorado Springs is a state of Colorado Level 2 trauma center. These trauma centers have an expansive reach that extends across our entire seven-state region.

In February 2022, we embarked on the journey of trauma center integration. As part of this, the institution established a system director of trauma programs with the goal of aligning trauma program functions between both the established trauma centers and the non-designated state facilities. This integrated program approach allows for trauma registry standardization, accuracy and efficiency. Additionally, it allows us the ability to analyze systemwide data, which is useful in identifying trends and enhancing operational decision-making.

Through these efforts, Children's Colorado, Anschutz Medical Campus completed a successful trauma site survey in April 2022 while the Colorado Springs Hospital was reverified in 2024.

Children's Colorado is committed to supporting its trauma programs and is dedicated to the optimization of pediatric trauma care across the care continuum.

Children's Hospital Colorado trauma programs

Locations:

Children's Colorado Anschutz Medical Campus, Aurora, Level 1 trauma center

Children's Colorado, Colorado Springs, Level 2 trauma center

Meet the team:



Shannon Acker, MD

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Trauma program manager, Colorado Springs

Ashley Urban

System senior data management analyst

Michael Pirtle

System senior operations management analyst

Amanda Abramczyk-Thill

Injury prevention, Colorado Springs

Clare Decker

Injury prevention, Anschutz Medical Campus, Aurora

John Coley, BSN

Trauma nurse coordinator, Anschutz Medical Campus, Aurora

Eryn Bishop, BSN

Trauma nurse coordinator, Colorado Springs

Brittany Howland, BSN

Trauma nurse coordinator, Colorado Springs

Jennifer Smith

Registrar, Anschutz Medical Campus, Aurora

Robert Howard

Registrar, Anschutz Medical Campus, Aurora

Pediatric surgeons:

Shannon Acker, MD

John Bealer, MD*

Denis Bensard, MD

David Bliss, MD*

Kristine Corkum, MD

Chris Derderian, MD

Jose Diaz-Miron, MD

Ankush Gosain, MD

Jonathan Hills-Dunlap, MD

Fredrick Karrer, MD

Ann Kulungowski, MD

Cory McLaughlin, MD*

Steven Moulton, MD

David Partrick, MD

Jonathan Roach, MD

Stig Somme, MD

John Wiersch, MD

Advanced practice providers:

Justin Alldredge, PA*

Danielle Aquila, NP

Brandi Axford, NP*

Teren Culbertson, PA*

Sarah Ellis, NP

Starla Eubanks, NP*

Brandi Farrell, NP

Doug Haase, PA*

Caitlin Hegarty, NP

Kelly Hoose, PA

Christianna Kaczmarek,
PA*

Richele Koehler, PA-C
Lead

Abigail Leon, PA

Kevin McLean, PA

Robyn Moore, PA

Nicole Newman, NP

Jessica Prater, PA

Brandy Ramos, NP*

Karisa Reynolds, PA*

AnnaMaria Salas, PA-C

Hope Simmons, NP

Elise Van Etten, PA-C

*Colorado Springs Team



Pediatric Trauma and Burn Center on the Anschutz Medical Campus

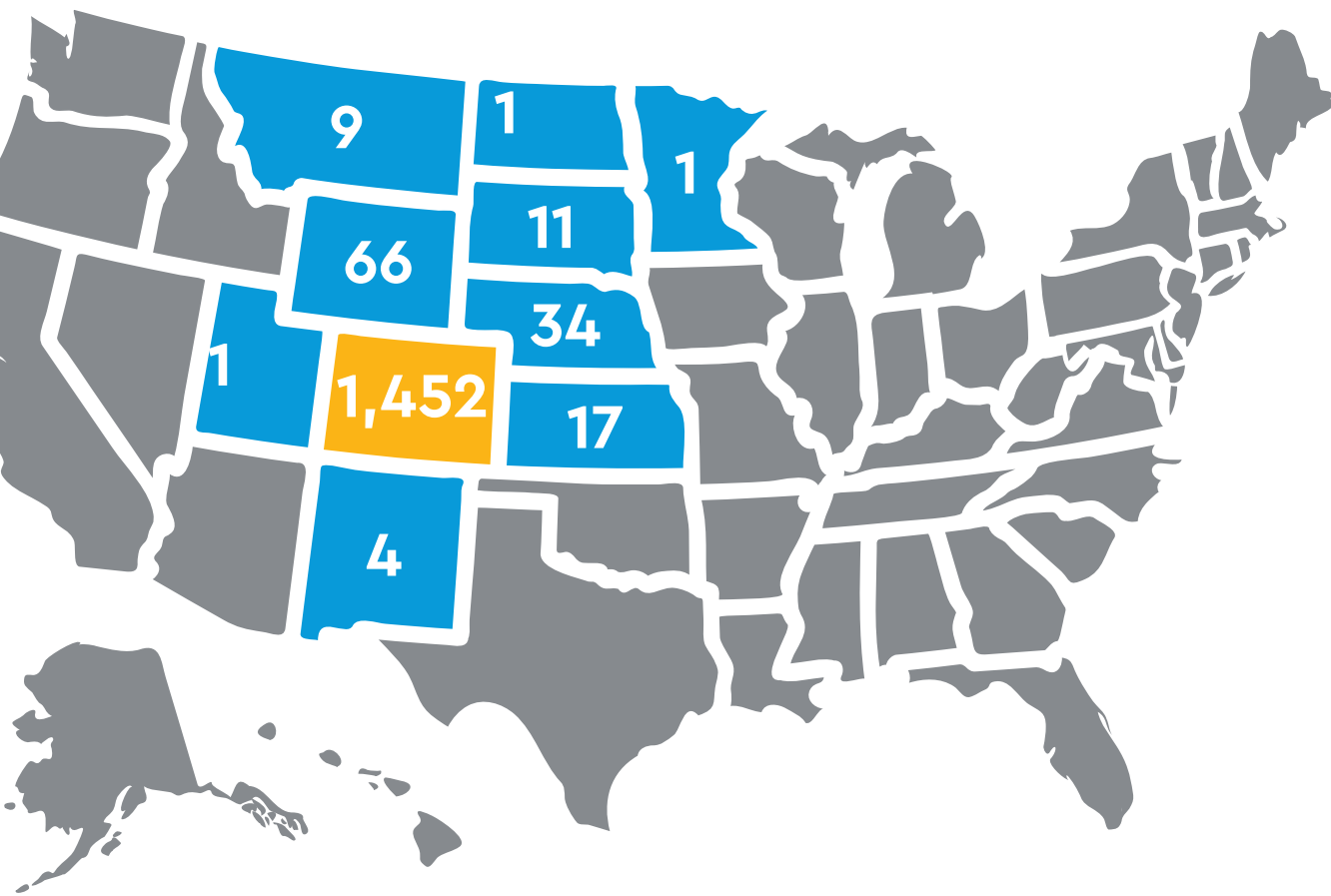
Our multidisciplinary Level I Regional Pediatric Trauma and Burn Center provides timely, comprehensive, cost-effective care for children with single system or complex multisystem trauma and burn-related injuries.

We are the only American College of Surgeons-verified Level I Pediatric Trauma Center in Colorado and the seven-state Rocky Mountain region. As a regional resource center, we set the standard for pediatric trauma and burn care.

We treat children with traumatic injuries such as:

- Epidural or subdural hematoma
- Thoracic or cardiac injuries
- Solid organ injuries
- Pelvis or femur fractures
- Non-accidental trauma
- Burn injuries

2023 regional and local referrals



Trauma center in Colorado Springs

When time is critical, comprehensive trauma care is now much closer for children in southern Colorado and northern New Mexico. Our state-verified Level 2 Trauma Center at Children's Hospital Colorado, Colorado Springs, provides immediate, life-saving care for the severest of injuries and can support a child or adolescent and their family throughout their recovery. We treat the full spectrum of injury including:

- Severe closed and penetrating head injuries (such as epidural and subdural hematomas)
- Thoracic and abdominal injuries (such as liver and spleen lacerations)
- Non-accidental trauma or neglect
- All varieties of fracture management, including pelvis and long-bone fractures
- Sports injuries



Ages

37%
0-4 years

26%
6-10 years

24%
11-14 years

13%
15-18 years

Executive summary

2,367
2023 total registry volume

131
Highest level activation

13%
Critically injured

0.6%
Mortality rate

0.5%
Admitted mortality rate

*All Children's Hospital Colorado, Colorado Springs and Children's Colorado Anschutz Medical Campus, Aurora patients meeting registry inclusion criteria. Critically injured = ISS >15 and admitted. Mortality rate is all deaths and all patients meeting registry inclusion criteria. Admitted mortality is patients admitted with mortality outcome among all patients admitted.

Children's Hospital Colorado Trauma Programs Year at a Glance

Traumatic injuries treated at Children's Colorado, Anschutz Medical Campus and Children's Colorado, Colorado Springs



89%
Blunt



7%
Penetrating



4%
Thermal

Top blunt injuries

- Fall
- Motor vehicle
- Wheeled
- Sport
- Non-accidental trauma

Top penetrating injuries

- Gunshot wound
- Animal bite
- Stabbing

Top thermal injuries

- Scald
- Flame
- Grease






Emergency medical services

We build relationships with emergency medical services providers to ensure the best outcomes in pediatric trauma and burn care. Our Transfer Center facilitates communication between prehospital providers, emergency medicine physicians and trauma surgeons, so that we can anticipate each patient's unique needs prior to arrival.

72% Of trauma patients are referred to us from another facility

Transport modes in 2023 to Children's Colorado trauma centers

-  **39%** Ambulance
-  **17%** Aircraft
-  **44%** Privately owned vehicle

*Children's Colorado Anschutz Medical Campus, Aurora and Children's Hospital Colorado, Colorado Springs patients meeting trauma criteria.



Our teams

Pediatric emergency medicine

Our emergency departments are the point of entry for our trauma centers. Our emergency medicine physicians, advanced practice providers and more than 400 nurses and ancillary staff deliver high-quality emergent and urgent care to children of all ages, around the clock, serving an enormous geographic area. Our full-time emergency medicine faculty members are board-certified in pediatric emergency medicine. We care for a wide array of acuities and conditions, in addition to directing Flight For Life pediatric transports.

Pediatric surgery

As a consistently top-ranked pediatric hospital, we offer several nationally recognized surgical procedures and programs for young patients. Our pediatric trauma surgeons provide 24/7, in-house coverage for immediate trauma and burn care.

Orthopedic surgery

Our pediatric orthopedic surgery and rehabilitation medicine physicians and staff are leaders in innovative research and superior care for children and young adults, ensuring the best possible outcomes for our patients, families and communities. We provide integrated orthopedic, surgical and rehabilitation care across a broad spectrum of conditions that affect growing joints and bones, from common breaks and sprains to the most complex musculoskeletal deformities and traumatic injuries. No other program in the nation offers our level of integrated, multidisciplinary pediatric care. Our physicians also offer consultations for simple and complex pediatric orthopedic problems.



Neurosurgery

Our Pediatric Neurosurgery Program offers integrated, comprehensive care for all types of disorders affecting the nervous system and skull, including traumatic injury, epilepsy, hydrocephalus, brain tumors, and facial and skull deformities.

Our fellowship-trained and board-certified pediatric neurosurgeons offer more than 60 years of combined experience and focus solely on the care of children with neurosurgical problems.

Critical care medicine

The Children's Colorado pediatric intensive care unit (PICU) is the largest and most technologically advanced PICU in the region. Our private intensive care rooms offer patients and families state-of-the-art monitoring and critical care equipment in a private setting, with nursing stations and critical care staff just a few feet from each patient's bed.

Our PICU staff provide comprehensive services for children with single or multiorgan system failure or severe chronic illness, as well as those recovering from complex cardiac, orthopedic, neurologic, and general surgeries, and patients undergoing solid organ transplantation.

Otolaryngology

As one of the largest groups of fellowship-trained pediatric otolaryngologists in the western U.S., we have more than 15 pediatric ENT specialists offering more than 125 years of combined post-fellowship pediatric experience. They see more than 18,000 patients annually.

Plastic and reconstructive surgery

The Department of Pediatric Plastic Surgery at Children's Hospital Colorado offers treatment for acquired and congenital problems of the face, head and neck, breast, torso, and upper and lower extremities. We are committed to providing the highest standard of plastic and reconstructive care to newborns, infants, children and adolescents. As the only pediatric plastic and reconstructive surgery program in the state of Colorado, we receive referrals from all over the Rocky Mountain region.



Child advocacy and protection team

Our Child Advocacy and Protection Team provides comprehensive medical evaluations in our weekly outpatient clinic and through inpatient and emergency department consultations.

We offer the only hospital-based multidisciplinary child abuse program in Colorado, proudly meeting the designation criteria of the Children's Hospital Association as a Child Abuse Center of Excellence. Our physicians were among the first in the country — and among the only in Colorado — to be board-certified in Child Abuse Pediatrics by the American Board of Pediatrics.

Family and child evaluation for suspected maltreatment includes family support and education. We offer best practice care and treatment in a sensitive and family-centered manner.

Rehabilitation medicine

The primary goal of our rehabilitation program is to optimize each child's ability to adapt to their environment, ease the effects of disability on the child's development and allow the child to be fully included in community living. A child's success in the program results from the collaboration of rehabilitation staff, the child's primary care physician and the child's family — all integral components of the child's care team. Our rehab team is CARF Accredited as of 2022.

Our pediatric trauma subspecialty team

- | | |
|-------------------------------|--|
| 17 Trauma surgeons | 18 Otolaryngologists |
| 17 Orthopedic surgeons | 2 Hand surgeons |
| 6 Cardiac surgeons | 3 Plastic surgeons |
| 7 Urologists | 26 Critical care intensivists |
| 9 Ophthalmologists | 68 Emergency medicine physicians |
| 8 Gynecologists | 14 Rehabilitation medicine physicians |
| 9 Neurosurgeons | |



Injury prevention programs

Our injury prevention team strives to ensure children stay safe by educating kids, caregivers, community partners and our internal team members. We also offer free or reduced-cost safety items and resources, including boosters and car seats, bike helmets and storage solutions for firearms.

Five injury prevention team members serve our community and engage with families at Children's Colorado, Anschutz Medical Campus; Children's Colorado Health Pavilion, Aurora; and Children's Colorado, Colorado Springs. We utilize local, statewide and national data to understand trends in the causes of traumatic injuries and evolve our programs to respond to them.

We also operate the safety store, located on the Anschutz Medical Campus, as a resource for families to purchase safety products and receive individualized information. All of the safety store's proceeds are reinvested in injury-prevention initiatives to keep children safe at home, in the car and while playing. For more information, contact the safety store at SafetyStore@childrenscolorado.org or 720-777-3185.

2023 injury prevention efforts



Educated the community

51 Free classes were offered to the community, with approximately **430** total individuals attending across topics such as child passenger safety, Stop the Bleed, and shaken baby syndrome prevention.



Trained our team

14 Staff were trained in 2023 as child passenger safety technicians, increasing total certified CPSTs system-wide to **57**. We held a Safe Travel for All Children training at CHCO and trained **8** new techs in adaptive seats, **22** staff as new car seat fitters and **60** medical residents on child passenger safety.



Helped kids travel safely

691 Car seat and booster seats were checked, providing **554** reduced cost child restraint systems to families in need.
58 Adaptive car seat appointments were completed.



Extended our reach

55 Community outreach events were attended, connecting with over **4,550** caregivers and children. We completed **9** media stories on child safety topics, including infant safe sleep, summer safety and home safety.



Outreach and education

Western Pediatric Trauma Conference

July 11 to 13, 2023 • 293 attendees

The Western Pediatric Trauma Conference is a nationally renowned pediatric trauma conference led by Children's Colorado, Phoenix Children's Hospital, Primary Children's Hospital, Children's Hospital Los Angeles, Stanford Children's Hospital and other pediatric trauma centers to improve outcomes in pediatric trauma care worldwide.

Colorado Pediatric Emergency and Trauma Conference

November 15 and 16, 2023 • 191 attendees

The annual pediatric trauma conference provides education on state-of-the-art care of the pediatric trauma patient. This conference is attended by regional and national physicians, nurses and ancillary providers.

Pediatric Emergency Education Lecture Series

Monthly • 518 attendees

This series offers free pediatric education to prehospital professionals on a monthly basis.

Emergency Trauma Outreach Symposia

3 locations • 199 attendees

Our Emergency Trauma Outreach Symposia brought educational events to physicians, nurses and pre-hospital providers throughout Colorado and the surrounding region.

Colorado Springs Pediatric Grand Rounds Series

Bi-monthly • 3,909 attendees

Recognizing the need for additional educational opportunities for all providers caring for children and adolescents in Southern Colorado, the Children's Hospital Colorado, Colorado Springs group launched a virtual grand rounds series in 2020. This educational series, providing continuing educational credit to the widest possible range of medical providers, is conducted twice monthly via a virtual platform. While skewed towards trauma-related information, the series has been intentionally designed to provide a broad range of pediatric topics that are pertinent to any and all healthcare providers caring for children. The program has been extraordinarily successful, reaching not only providers throughout the state of Colorado but also providers in 22 other states and 14 countries. To date, the program has credited over 3,500 continuing educational hours to providers working in every role throughout the spectrum of clinical care.

Trauma Grand Rounds Series

Monthly • 185 attendees

This monthly series allows for education related to subspecialties within the multidisciplinary trauma team. Trauma grand rounds provides an opportunity to incorporate specialty care guidelines in the treatment of pediatric trauma patients.

Refining the trauma team activation response in the emergency department

Authors: Kristin Kim, Kathleen Adelgais, Lana Martin, Steven Moulton

Trauma team activations in the emergency department (ED) involve a complex, multi-disciplinary team coming together to evaluate and treat a patient with potentially life-threatening injuries. Trauma surgeons, pediatric emergency medicine (PEM) physicians, anesthesiologists, ED nurses, paramedics and respiratory therapists all collaborate to care for the critically injured patient in a rapid and orchestrated manner. A systematic approach decreases chaos and improves patient care.

We developed a formal trauma video review (TVR) process to evaluate adherence to Advanced Trauma Life Support (ATLS) protocols, identify patient safety issues and improve team performance. All trauma surgeons, PEM physicians and a core of ED trauma nurses are invited to participate in each review. Through this systematic review of our care of patients we are able to identify and address areas for improvement so that we can continue to refine treatments for the most injured children. We distribute a quarterly “trauma pearls” document to the entire trauma activation team that summarizes our findings and provides best practice suggestions and reminders.

Using our findings, we have instituted 5-minute ED based simulations to ensure that the critical first 5 minutes of trauma evaluation run smoothly and effectively. We continue to use trauma video review as part of our quality improvement programs to ensure that we provide the highest quality care to the seriously injured children we are entrusted to treat.

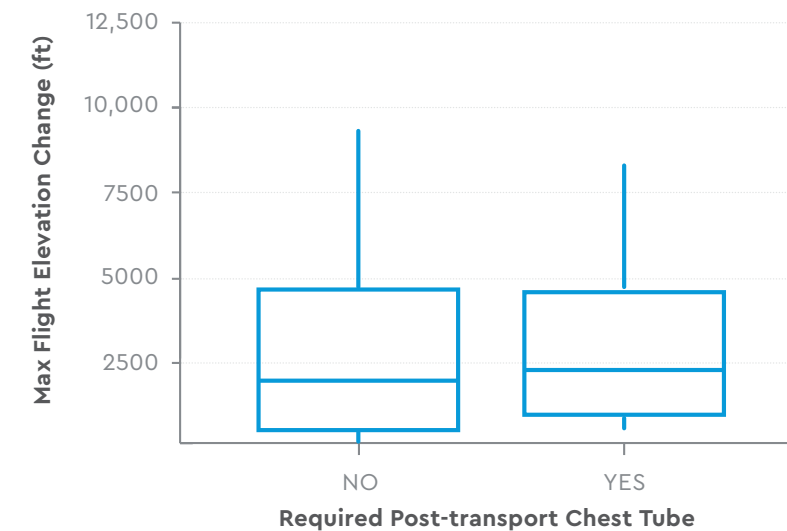
Transport of children with traumatic pneumothorax

Authors: Nicole Becher, Genevieve Kierulf, Samantha Bothwell, Maria Mandt, Steven Moulton

Prophylactic chest tube placement prior to air transport of patients with traumatic pneumothorax is thought to reduce the risk of expansion in flight from changes in air pressure. However, there are no data to support this practice in the pediatric population, and minimal studies in the adult population that indicated it is safe to fly without a chest tube.

In an effort to minimize unnecessary procedures and delays in transport to definitive care, we sought to examine the effect of transport at elevation of pediatric trauma patients with a pneumothorax.

Our unique geographic location and high-volume pediatric trauma center afforded us the opportunity to create a database of patients diagnosed with traumatic pneumothorax from 2010-2022. There were 412 patients transported with a pneumothorax and no chest tube, with an average elevation gain in transport of 2337 ft. Most patients (94.1%) had a small pneumothorax that resolved without chest tube placement and were discharged without any complications. No patients suffered any complications during or within 24 hours of transport at elevation. Four patients had minimal expansion of their pneumothorax. There were 19 patients who underwent chest tube placement after arrival. There was no association between elevation change and requirement of post-transport chest tube placement.



Distribution of max elevation change (ft) experienced by patients transported by all modalities (ground, fixed wing and helicopter) stratified by whether post-transport chest tube intervention was required upon arrival. No statistically significant difference was observed between cohorts.

The findings of our research help to fill a gap in evidence-based recommendations for transport at elevation with a traumatic pneumothorax in the pediatric population. For all patients, symptomatic and/or hemodynamic changes should continue to prompt consideration of pre-transport chest tube placement. Stable pediatric patients with a small traumatic pneumothorax can undergo safe interfacility transport regardless of considerable changes in elevation and should not receive prophylactic chest tube placement.



Regional Pediatric Burn Center

Our Burn Center was established in 1974. We deliver the highest standard of treatment for burn-injured children of all ages. Our transfer center arranges transportation as necessary to ensure every child receives optimal treatment for their burn injuries.

Our team cares for patients throughout their entire recovery journey, from acute inpatient care to outpatient and rehabilitative settings. We also offer consultations for other skin injuries including exfoliative dermatoses (such as Stevens Johnson Syndrome and toxic epidermal necrolysis), IV infiltrates and traumatic abrasions.

We offer education and family-centered care through aftercare programs, peer support groups, community gatherings, a school re-entry program and our Burn Camps Program. For questions or patient transfers, call OneCall at 720-777-3999 or our burn nurse cell phone at 303-549-4636.

In 2023, we had about 100 burn admissions and provided pediatric burn center support across our seven-state region. Some of the mechanisms of skin injury we saw in 2023 include: scald, contact, fire/flame, friction, electrical, inhalation burn, fireworks, road rash, chemical and grease.

Outpatient burn volumes

- In 2023, our outpatient clinic volume increased by approximately 11 percent (on average we saw 21 more clinic visits each month compared to 2022).
- We saw approximately 187 clinic visits each month in 2023, with a peak of 246 in August (June, July and August were our busiest months).

What our families say

Based on the Children's Hospital Colorado patient and family experience survey responses, our burn clinic continues to be rated five stars. The burn team consistently scores highest in the following statements:

- Nurses listened carefully to me
- I trusted providers with the care of my child
- I was comfortable talking to the nurse

Comments from families in 2023

"The nurses/doctor we worked with were wonderful. Perfect careers for them."

"The nurses and physicians there are very helpful and I trusted them with my son."

"Our care team throughout the process was great in the burn clinic. They showed tons of care and affection towards my son. Our child life specialist was our favorite she worked so hard to make sure my son was distracted when needed to be and was so gentle, caring and very thoughtful, she is a gem!"

"We were blown away by the quality and efficiency of care. Thank you so much."

"I'm very thankful for our burn nurse and the whole team overall! You guys are amazing and do a fantastic job with our kiddos!"

"Thank you for the importance timely manner you treated my son for his burns on his hands. Love this team at the burn center! Thank you."

"I hope you guys get your laser programing up and going! Thank you for all of your help with our daughter as she goes through this."

"Everybody at the clinic was awesome and super helpful with my son and my family and any questions that we had. And the treatments have been going phenomenally. And yeah, we're very happy that we brought him there. We're very happy with the care that we've received."

"My daughter burned her leg with hot ramen and was in some pretty bad pain with a large burn. The nurses and nurse practitioner were all amazing and gave my daughter the best care I could have ever asked for! They made all of us feel comfortable and answered any questions we had. I wish this never happened, but if it were to ever happen again, I would drive hours to be seen by this team time and time again!"



Burn Camps Program

The Children's Hospital Colorado Burn Camps Program is a suite of American Camp Association-accredited programs structured to meet the rehabilitative and psychosocial needs of children who have sustained a burn injury. Since its inception in 1983, the program has been designed to meet the specific needs of children who have sustained a burn injury by providing a residential camp program with world-class medical care, professional camp staff, dedicated staff from referring burn units and community service partners.

Our mission is to provide children who have sustained a burn injury, and their families, the opportunity to build courage and thrive throughout their recoveries and beyond. This is achieved through inspiration, rehabilitation and shared experiences in a safe, nurturing and supportive community. It is our vision to be a leader in quality outcomes and camper safety through innovative programming that delivers the burn camp experience to all children who sustain a burn injury.

We empower our campers and families to thrive through challenges in a safe and nurturing environment. Campers engage in intentional activities, including horseback riding, arts and crafts, rock climbing, games and swimming. These curated activities encourage boundless creativity, self-expression, newfound courage and adventure and create a positive self-image, all while allowing kids to make lifelong friendships. Our campers play with purpose and start to discover who they are as people. They learn that their scars are part of them, not defining who they are, and they begin to heal from the inside out.



2023 HIGHLIGHTS Burn Ambassadors Program

Every two years, the community nominates a group of patients to represent Children's Hospital Colorado as patient ambassadors. Throughout their two-year commitment, ambassadors and their families will share their stories, help to raise money and represent Children's Colorado at community fundraising events. We are incredibly grateful to Ella and Will for representing the Burn Center and Burn Camps Program as Burn Ambassadors in 2022 and 2023. We would like to extend a huge thank you to them and their families for appearing at events, sharing their stories and raising much-needed funds for the Burn Camps Program.



2023 Program summaries

Winter Camp | February 6-10, 2023 | Steamboat Springs, CO

Winter camp 2023 was a huge success. We welcomed 23 campers and 11 staff and spent a fantastic week together in Steamboat. The campers were able to enjoy wonderful fresh snow, receive incredible instruction from the Steamboat Ski and Snowboard School, share plenty of laughs with friends and create priceless memories.

At Winter Camp, campers are challenged to translate their experiences on the slopes into real-life lessons to take back with them after the skis and boards have been returned. Our evenings were spent working on an introspective program which offered both campers and counselors the opportunity to learn more about themselves. Our theme was entitled, "Grounded for Greatness." We used the visual metaphor of an oak tree to help us recognize our unique qualities and traits that give us strength and provide opportunities for growth. Recognizing each person's unique traits and qualities can help us navigate challenging obstacles and reflect on the gifts you have to share with others.

Family Camp | June 10-14, 2023 | YMCA of the Rockies | Estes Park

When a person experiences a burn injury, the whole family is affected. It is for this reason that the Family Burn Camp has been part of the Burn Camps Program for over 30 years. Six families from Ohio, Colorado and New Mexico met up at the Estes Park YMCA in early June for a four-night camp.

Participants ages 1 through 60 created a camp community focused on connecting and continued healing. A staff of eight professionals crafted a program that included daily age-based breakout groups that focus on psychosocial support. A trip to the low-ropes course at Cheley Colorado Camps gave campers and families a taste of summer camp while also promoting communication, team building, problem-solving and fun. Everyone enjoyed a visit from Estes Valley Fire Protection District firefighters with two fire engines to explore, including spraying a real fire hose. Visiting historic MacGregor Ranch and enjoying free-time activities at the YMCA gave families a chance to play and heal as a family.

Reflecting on the Family Camp experience, one family wrote, "Getting to connect with other kids has improved his self-image a lot! He knows he's not the only kid that got burned anymore. And other people have siblings like him too. The whole experience was very much needed and more so than I realized myself. Thank you for everything!"

Courage Classic | July 15-16, 2023 | Copper Mountain

Our Courage Classic fundraising team is excited to support the Burn Camps Program. S'more Courage is a group of dedicated volunteers raising money by hitting the road for two days of cycling over picturesque Rocky Mountain passes. This year's tour had something for everyone with six route options from 12 to 79 miles through the beautiful Rocky Mountains, starting and ending in Copper Mountain. Whether you ride, fundraise, donate, volunteer or sponsor the Courage Classic, your support helps provide lifesaving care for children at the region's only nonprofit pediatric hospital.

Summer Camp | August 14-20, 2023 | Cheley Colorado Camps | Estes Park

In 2023, Summer Camp celebrated its 40th year. We were happy to host 70 campers and 50 staff for this fast-paced, joy filled week. We were able to challenge ourselves physically and emotionally, reconnect with our camp community, make lifelong friends and enjoy an amazing week in the mountains. Campers were challenged to find their own strengths and skills to empower them on their journey to become their best selves. We are so proud of each camper as they all found a way to celebrate their uniqueness while making friends, learning new skills and challenging themselves.



40th Celebration | November 4, 2023 | Seawell Ballroom, Denver Center For The Performing Arts

The Burn Camps Program turned 40 years old in 2023 and our 40th Celebration was a truly special night. It was an incredible evening celebrating the last 40 years of Burn Camp. We are very thankful to those who joined us, made a donation, donated or purchased a live or silent auction item, and/or sponsored the event. We honored the past, created an event for campers and staff to reunite and ensured the future of Burn Camp by raising much-needed funds. We are incredibly excited to announce we more than doubled last year's total by raising over \$315,000!

Thank you to everyone who joined to celebrate 40 years of burn camp. It was an incredible evening filled with friends, food, libations, auction and power of camp.

Thank you to our incredible 40th anniversary celebration sponsors:

Anniversary sponsor

Denver Fire Fighters Charitable Foundation

Platinum sponsors

Mark Martinez Family

Anne and Tom McGonagle

Gold sponsors

Cheley Colorado Camps

Keating Wagner Polidori Free

Crothall Healthcare

Trentel Family

D. C. Firefighters Burn Foundation

UC Health Burn Center

Children's Hospital Colorado Department of Pediatric Surgery

Silver sponsors

Colorado Firefighter Calendar

Joey Irwin Family

Dennis Family

KM Sales

Integral Recoveries, Inc.

MTech Mechanical

Event Sponsors

Cinzano Prosecco

Heaven Hill Brands

Classic Beverage Company

Natural Habitat Adventures

Crooked Stave

Occasions Catering

Community and awareness events

We provide and participate in a wide range of events, including community fundraising, prevention, awareness, conferences and continuing education for medical professionals. Annually, we host community support activities for families healing from a burn injury. In 2023, we were incredibly excited to be able to hold our annual ice skating community event at WinterSkate in Louisville, CO on February 18th. Our community events provide opportunities to connect families to other families, the fire service and community partners.

Burn Awareness Week, organized by the American Burn Association, is observed the first full week in February and is a window of opportunity for organizations to mobilize burn, fire and life safety educators to unite in sharing a common burn awareness and prevention message in our community. We set up a booth at the Children’s Museum of Denver on Thursday, February 9th as part of Burn Awareness Week. When it comes to burn first aid, there are a lot of myths and home remedies. It’s a great way for us to have conversations with caregivers of small children and start to dispel some of those myths. While at the same time, we can speak to burn hazards in the home while giving real world prevention techniques to caregivers.

We are members of the Colorado Risk Reduction Network focused on injury prevention and safety initiatives throughout the year.

We are members of the Phoenix Society for Burn Survivors peer support program. Our volunteers, who have themselves navigated a burn injury and recovery, provided peer support to children, teens, siblings and caregivers across the acute and rehabilitative phases of care through the Survivors Offering Assistance in Recovery (SOAR) peer support program.

Youth Firesetting Evaluation and Treatment Program

The Youth Firesetting Evaluation and Treatment Program was designed in response to the need for specialized community services addressing youth misusing fire. The program focuses on helping youth and families make safer decisions. We evaluate and treat patients with injuries from the misuse of fire, candles, electricity, lightbulbs, chemicals and fireworks, and help families develop safety plans. As part of our burn prevention efforts, we also work with children, youth and families who have not sustained burns with the hopes of intervening before injury, property damage or loss of life. We receive community referrals from fire departments, schools, mental health services, juvenile justice and parents of children exhibiting high-risk firesetting behavior. Families receive mental health interventions for these high-risk behaviors to help prevent burn injuries and enhance community safety.

Philanthropic support

Our work would not be possible without the philanthropic support of multiple partner organizations and individuals. Thank you to our corporate partners who contributed \$10,000 or more in 2023. We appreciate their volunteer efforts and financial contributions, which contribute to the growth and development of our Trauma and Burn Center and Burn Camps Program.



COMMUNITY FUNDRAISING EVENTS

BCER A-Basin Fire Hose Race

The 16th annual fire hose race was held on Friday, February 24, 2023, at Arapahoe Basin. Organized by BCER, a Denver-based engineering firm, this successful event brings together corporations and fire departments from across Colorado to compete in a unique slalom-style event. Teams of five race down a 15-gate slalom course while holding on to 50 feet of fire hose. And you can’t miss them — all participants must dress in bunker gear including a firefighter jacket and helmet. This year’s event raised \$25,000. With this donation, BCER and this event have raised over \$200,000 for the Burn Camps Program. We are incredibly thankful to BCER for once again hosting the event and to all the event sponsors and participants.

Colorado Fire Protection Association

The Colorado Fire Protection Association (CFPA) is one of our longest-running donors. Their annual golf tournament in support of the Burn Camps Program was held on Friday, September 8, 2023, at Arrowhead Golf Club and raised \$10,000. Please join us in thank the CFPA for their generous and continued support.

Research projects with IRB approval

1. The Effect of Emergency Department and After-Emergency Department Analgesic Treatment on Pediatric Long Bone Fracture Outcomes
2. Emergency Medical Services for Children (EMSC) Network for the Sustainability of a Pediatric Emergency Care Applied Research Network
3. A Randomized Controlled Trial of Abdominal Ultrasound (FAST) in Children with Blunt Torso Trauma
4. Modulating Exercise Dosage to Improve Concussion Recovery: A Randomized Clinical Trial
5. Low Fidelity Simulation Application Proof of Concept: A Quality Improvement Initiative to Enable Consistent, Efficient, and Affordable Simulation of Critically Ill Children in the Emergency Department
6. Colorado EMS for Children Program
7. Pediatric Emergency Care Coordinators in EMS Agencies: Measuring the Influence, Magnifying the Impact
8. Emergency Medical Services for Children Innovation and Improvement Center



2023 Publications

Emergency Medicine

1. Greene, H. M., Letson, M. M., Spencer, S. P., Dolan, K., Foster, J., & Crichton, K. G. (2023). Recognizing Nonaccidental Trauma in a Pediatric Tertiary Hospital: A Quality Improvement Imperative. *Pediatric quality & safety*, 8(2), e644. <https://doi.org/10.1097/pq9.0000000000000644>
2. Heffler, M. A., Brant, J. A., Singh, A., Toney, A. G., Harel-Sterling, M., Grandjean-Blanchet, C., Riera, A., Khalil, P. A., Starr-Seal, R. L., & Binder, Z. W. (2023). Ultrasound-Guided Regional Anesthesia of the Femoral Nerve in the Pediatric Emergency Department. *Pediatric emergency care*, 39(2), e30–e34. <https://doi.org/10.1097/PEC.0000000000002607>

Psychiatry

3. Buxton, H., Marr, M. C., Hernandez, A., Vijanderan, J., Brasel, K., Cook, M., & Moreland-Capua, A. (2023). Peer-to-Peer Trauma-Informed Training for Surgical Residents Facilitated by Psychiatry Residents. *Academic psychiatry: the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, 47(1), 59–62. <https://doi.org/10.1007/s40596-022-01648-7>

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5. Igboechi, O., Purtell, S. R., Carry, P., & Sanders, J. S. (2023). Pediatric Pelvic and Acetabular Fractures: Discerning Severity by Classification and Clinical Management. *Journal of pediatric orthopedics*, 43(7), 424–430. <https://doi.org/10.1097/BPO.0000000000002426>
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Pathology

7. Morgan, K. M., Lobo, R., Annen, K., Villarreal, R. I., Chou, S., Uter, S., Leonard, J. C., Dyer, C., Yazer, M., Spinella, P. C., & Leeper, C. M. (2023). Parent perceptions of emergent blood transfusion in children. *Transfusion*, 63 Suppl 3, S35–S45. <https://doi.org/10.1111/trf.17334>

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8. Burtard, C., Panks, J., Silverman, L. B., Lindberg, D. M., Stence, N. V., Neuberger, I., Maloney, J., White, C., & Mirsky, D. M. (2023). Prevalence of cerebral sinovenous thrombosis in abusive head trauma. *Pediatric radiology*, 53(1), 78–85. <https://doi.org/10.1007/s00247-022-05462-z>

Rehabilitation

9. Sarmiento, C. A., Wyrwa, J. M., Chambliss, A. V., Stearns-Yoder, K. A., Hoffberg, A. S., Appel, A., Brenner, B. O., & Brenner, L. A. (2023). Developmental Outcomes Following Abusive Head Trauma in Infancy: A Systematic Review. *The Journal of head trauma rehabilitation*, 38(4), 283–293. <https://doi.org/10.1097/HTR.0000000000000808>

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12. Melhado, C., Russell, K. W., Acker, S. N., Padilla, B. E., Lofberg, K., Spurrier, R. G., Robinson, B., Chao, S., Ignacio, R. C., Ryan, M., Jensen, A. R., & Western Pediatric Surgery Research Consortium Cervical Spine Injury Study Group (2023). Cervical Collar-Associated Pressure Injury in Pediatric Trauma Patients: A Western Pediatric Surgery Research Consortium Study. *Journal of pediatric surgery*, S0022-3468(23)00631-0. Advance online publication. <https://doi.org/10.1016/j.jpedsurg.2023.10.021>
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