LEADERS IN

STORIES OF THE MOST AMAZING CARE ANYWHERE
SPRING 2020

Wellness in Action

Recreational therapy programs at Shriners Hospitals promote confidence and well-being



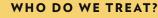
Shriners Hospitals for Children®

ABOUT SHRINERS HOSPITALS FOR CHILDREN





OUR MISSION At Shriners Hospitals for Children®, our three-part mission has one goal: to change and improve lives. We do this by caring for our patients, conducting research to gain knowledge and develop new treatments, and providing educational opportunities for physicians and other health care professionals.



Children under age 18 may receive care and treatment when there is a reasonable possibility they could benefit from the specialized services we offer. All services are provided regardless of a family's ability to pay.

WHAT ARE OUR PEDIATRIC SPECIALTIES?

- + Treatment for orthopaedic conditions
- + Burn care
- + Spinal cord injury rehabilitation and management
- + Cleft lip and palate care



GROUNDBREAKING RESEARCH

We strive to discover answers that will one day improve lives. Our innovative researchers have made significant breakthroughs in all four of our service lines, improving patient care and adding to the global body of medical knowledge.

CONTINUING EDUCATION



One way we help improve the lives of children worldwide is by offering educational opportunities to medical professionals. We maintain relationships with several medical teaching facilities, and our clinicians are known for sharing their experience and knowledge with other medical communities.



THE SHRINERS FRATERNITY

Shriners International, a fraternity based on fun, fellowship and the Masonic principles of brotherly love, relief and truth, founded Shriners Hospitals for Children as its official philanthropy in 1922. What began as one hospital is now a world-renowned health care system with locations in three countries. The fraternity, which has nearly 200 chapters in several countries and thousands of clubs around the world, continues to support this unique health care system. To learn more, please visit **shrinersinternational.org**.

COMMUNITY CONVERSATIONS

Dear Readers,

Spring is such a wonderful season of the year. It's a time of hope, promise and new beginnings. At Shriners Hospitals for Children, we look forward to finding and creating new, better treatments for our



patients, and to reaching more patients and families who could benefit from the services we offer. As always, the care and treatment is provided regardless of the families' ability to pay. We

are able to do this because of the generosity and commitment of countless donors.

Every day at Shriners Hospitals, patients discover they can achieve more than ever thought possible, and learn to live with grace and confidence in the midst of daunting challenges. Visit any of our health care facilities, and you could see children taking their first steps, holding a spoon or a pencil for the first time, learning to speak clearly or effectively using technology, and families realizing – maybe for the first time – that there is hope for their child's future. We are in awe of the determination and courage of our patients, and we celebrate them, share their joy and applaud them throughout the year.

We are determined to offer the unique experience of hope and promise that is Shriners Hospitals for Children to as many kids as possible, wherever they may live. To that end, we are increasing our outreach and telehealth efforts and working to develop more community affiliations and education opportunities for medical professionals. We are also streamlining our care models to provide care more effectively and efficiently.

We invite you to learn more about Shriners Hospitals for Children on the following pages, and join our mission to provide hope and healing to children everywhere.

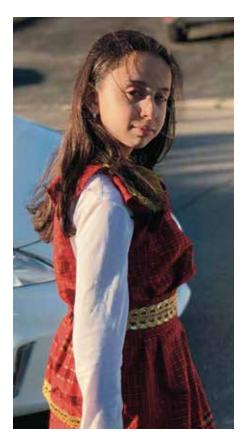
Sincerely, Mel Bower Chief Marketing and Communications Officer Shriners Hospitals for Children

PATIENT PERSPECTIVES

MAYSEN, 10, WAS REFERRED by her pediatrician to Shriners Hospitals for Children — Canada when she continued to feel pain after a fall down some stairs at home. Chantal Janelle, M.D., helped Maysen by immobilizing her shoulder and putting her in a soft cast for a few weeks. Maysen placed this note, in French, in the hospital suggestion box. An English translation follows.

Je désire que vous acceptez les personnes âgé pour que ma grand-mère puisse avoir de bons soins car le vôtre je l'apprécie beaucoup. Si je donne ma note ce sera 99% et 1% pour l'attente mais je comprends. Bref, vos soins sont les meilleurs et que les personnes doivent en profiter. Vous m'avez donné de très, très bon soins. Merci!

I want you to accept old people, too, so that my grandmother can have good care, because I appreciate very much the care I have received. If I gave a rating, it would be 99% (1% for the wait, but I understand). In short, your care is the best, and people must enjoy it. You gave me very, very good care. Thank you!



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ON THE COVER: A patient from Shriners Hospitals for Children – Honolulu takes part in the stand-up paddling program. *Photo by Nicholas Masagatani*

IMPORTANT UPDATE

Preparing for Our Next 100 Years

Shriners Hospitals for Children is changing to meet the needs and expectations of today and tomorrow

We live in an ever-changing, fastpaced, technology-driven world. Just look at the phone in your back pocket. It's not just a phone anymore – it's a camera, a computer and your own personal entertainment center.

The health care industry is also undergoing rapid, radical changes. One big change is the shift to an emphasis on outpatient care.

A history of compassion and healing

The members of the Shriners fraternity established Shriners Hospitals for Children because they wanted to make a difference in the world - they wanted to establish a philanthropy that would help those in need and make the world a better place. At the time, a polio epidemic was sweeping across the country, and it was apparent that many children were without appropriate care. Consequently, these compassionate visionaries chose to establish a children's hospital to meet this need. and to provide all care and services regardless of the families' ability to pay. The first Shriners Hospital opened in 1922 in Shreveport, Louisiana. What began as one hospital has become a worldrenowned health care system with locations in three countries.

Over time, Shriners Hospitals for Children has continued to make a difference by addressing additional medical needs of children, including burn injuries, spinal cord injuries, and cleft lip and palate. Driven by compassion and concern,



Shriners Hospitals for Children has been committed to changing the lives of children for nearly 100 years, and has provided hope and healing to more than 1.4 million children.

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Transforming our delivery of care

Shriners Hospitals for Children has historically provided the majority of its excellent care on an inpatient basis. However, today,

approximately 85% of pediatric medical procedures in the U.S. are performed in an outpatient setting, and this trend is expected to continue. We are evaluating our care delivery model at each of our locations and making the necessary adaptations and changes to ensure we are meeting the needs of both the patients and communities we serve.

A local perspective

Using a variety of approaches that fit the various situations and communities, plans include partnering with other community health care providers, sharing space and focusing on specific outreach efforts. Our patients will continue to be served and to receive our trademark compassionate, wrap-around care. We will continue to try to reach more patients in these areas who could benefit from the services and expertise Shriners Hospitals for Children has to offer.

Our locations in Erie, Pennsylvania; Lexington, Kentucky; Pasadena, California; Tampa, Florida; and Minneapolis, Minnesota, are already completely focused on outpatient care and/or one-day surgeries, with necessary inpatient services coordinated with a community partner. We anticipate that our Cincinnati, Ohio, hospital will relocate within Dayton Children's Hospital and that our Houston, Texas, facility will be consolidated with our Galveston, Texas, location in 2021.

These changes and evaluations are part of a much larger plan that

will create a select number of Centers of Excellence, with more than 200 access points for patients and families (affiliations, partnerships, telehealth sites, outreach clinics, etc.), allowing us to serve more children, wherever they live.

As Shriners Hospitals for Children plans for the future, we will continue to put the needs of our patients first, just as we have since 1922. $\widehat{\bullet}$



EVERYDAY EXCELLENCE IN SPECIALTY TREATMENTS AND RESEARCH

BIG

Shriners Hospitals continues to be a leader in pediatric orthopaedic care

ince our first hospital opened its doors in 1922, providing care for orthopaedic conditions has been a hallmark of Shriners Hospitals for Children. The diseases and disorders we treat are wide-ranging and diverse, and include bone deformities such as clubfoot, neuromuscular conditions such as cerebral palsy, and conditions with a genetic cause such as osteogenesis imperfecta (OI), also known as brittle bone disease. Our goal is to help each child become as healthy and independent as possible.

With a large staff of experienced pediatric orthopaedic surgeons, as well as a comprehensive team of physical, occupational, speech and other therapists, we are able to provide each child with a customized care plan. Our orthopaedic physicians are able to address a wide range of conditions, including hip problems, foot deformities, limb deficiencies and discrepancies, spinal deformities and other orthopaedic difficulties associated with neuromuscular disorders such as cerebral palsy.

We also emphasize technology in the treatments we provide. Here are just a few examples. >>

Nicholas, who received care at the Chicago Shriners Hospital, proudly displays his prosthetic leg.

7 Advances in Scoliosis Care | 8 Patient Is Nation's Top Recruit for Wheelchair Hoops



New X-ray technology provides better images and reduces radiation exposure

Research indicates that radiation from repeated X-rays can increase the risk for cancer later in life. This is of great concern to our medical team, as Shriners Hospitals for Children is committed to providing the safest treatments available to our patients. That is just one reason many of our locations now have EOS imaging systems, which offer both improved images and less exposure to radiation.

The EOS imaging system is based on Nobel Prize-winning technology that provides life-size, whole-body images with up to 85% less radiation, compared to conventional X-rays. Images are taken in a standing or seated position in 2D and 3D. These weight-bearing images reveal a patient's natural posture and allow physicians to analyze the interactions between bones, joints and ligaments from different angles.

TO LEARN MORE about the orthopaedic care available at most Shriners Hospitals for Children locations, please visit **shrinershospitalsforchildren.org**. Radiation exposure is cumulative over one's lifespan, so EOS imaging is particularly helpful for use with children who need multiple images taken throughout their course of treatment.

Motion analysis helps determine the best course of treatment

Shriners Hospitals for Children is an internationally recognized leader in clinical motion analysis. The motion analysis centers at our locations complement our health care system's commitment to provide excellent care to children with orthopaedic conditions.

The information provided by motion analysis can be used to improve both patient outcomes and treatment protocols. In our 14 motion analysis centers, highspeed cameras, reflective markers, force platforms and muscle sensors are used to record, measure and evaluate how a child with a mobility impairment – such as those

caused by neuromuscular conditions including cerebral palsy, congenital challenges like clubfoot or spine conditions like scoliosis – actually moves. When we understand different gait and movement patterns, we can help children with mobility impairments to move more efficiently, more easily and more confidently.

Innovation in orthotics and prosthetics

The highly qualified Pediatric Orthotic and Prosthetic Services (POPS) staff at Shriners Hospitals for Children have created devices that allow children with limb deficiencies to play musical instruments, participate in sports and have a better quality of life. These O&P (orthotic and prosthetic) professionals can create a full range of devices, from a complete prosthetic limb to the smallest assistive device, for children of all ages, efficiently, accurately and precisely.

The POPS program at Shriners Hospitals is streamlined, collaborative and technologically advanced.

Now, creating an O&P device can be accomplished in days rather than weeks.

Our U.S. locations are supported by designated fabrication centers, which make the devices according to data electronically provided by the health care locations. Using a computerized system and electronic carvers eliminates the need for creating plaster casts as models, and saves a scanned model as a digital file for future reference. Now, creating an O&P device can be accomplished in days rather than weeks. The POPS program strengthens the consistency and efficiency of our processes and products throughout our health care system.

These are just a few examples of our efforts to provide patients with orthopaedic conditions care and treatment that will help them become as healthy and independent as possible, able to take their place in their communities with grace and confidence.



Advances in Scoliosis Care

Spine surgeon receives an award for research



In 2019, the Shriners Hospitals for Children — Portland research team. led by William Horton, M.D., made an innovative discovery impacting the way physicians track a child's growth rate. Through a simple fingerprick blood test, the team discovered a protein (biomarker CXM) that mirrors a child's rate of bone growth. Since the discovery, Michelle Welborn, M.D., a pediatric orthopaedic surgeon at the hospital,

Michelle Welborn, M.D.

has analyzed how this blood test could help her improve care for patients with scoliosis and other spine conditions.

"Assessing a patient's growth is a vital factor in determining the treatment for patients with scoliosis," said Dr. Welborn. "By determining the rate of growth in real time, we can make sure that we are bracing patients for the correct amount of time and that we are performing surgery at the optimal time. The utilization of biomarker CXM will enable us to improve treatment plans, and it can minimize the number of surgeries needed."

Last summer, the Scoliosis Research Society awarded the Thomas E. Whitecloud Award (in the category of Best Basic Science Paper) to Dr. Welborn for her work with the biomarker CXM.

Chief of Staff Recognized

Physician honored as prestigious endowed chair

The chief of staff at Shriners Hospitals for Children — Salt Lake City, Kristen Carroll, M.D., now holds the honor of the Sherman



Kristen Carroll, M.D.

S. Coleman, M.D., Presidential Endowed Chair in Pediatric Orthopaedics in the Department of Orthopaedics at the University of Utah. An endowed chair is a recognition of profound academic distinction and excellence, but what makes this honor even more meaningful is the history behind its name.

Sherman S. Coleman, M.D., was the second chief of staff at the Salt Lake City Shriners Hospital while he served as the chair of the University of Utah Orthopaedic Division for 33 years. His contributions to orthopaedics are widely renowned. What's more, he was like a second father to Dr. Carroll, making this recognition incredibly meaningful to her.

As endowed chair, Dr. Carroll will manage a sizable budget for research and professional advancement for five years. She already put some of the funding to good use with the Shriners Hospitals for Children Western Regional Research Conference, hosted by our Salt Lake City location in the fall of 2019. She also has professional development plans with some incredible orthopaedic surgeons within the Pediatric Orthopaedic Society of North America (POSNA) and aims to help advance women pursuing careers in orthopaedics.

For more than 20 years, Dr. Carroll has cared for children with neuromuscular and orthopaedic conditions such as cerebral palsy, skeletal dysplasia, osteogenesis imperfecta and developmental dysplasia of the hip at Shriners Hospitals for Children — Salt Lake City. In addition to her role as chief of staff and pediatric orthopaedic surgeon at Shriners Hospitals for Children, Dr. Carroll is a University of Utah professor in the Department of Orthopaedic Surgery.



Mary M. O'Gara, MA, CCC-SLP

Fellowship Award

Director of the Chicago Shriners Hospital's cleft palate/plastics team receives fellowship

Mary M. O'Gara, MA, CCC-SLP, was named a Fellow of the American Speech-Language-Hearing Association (ASHA). She is the first ASHA Fellow in the Shriners Hospitals for Children system. O'Gara received her award in November at the ASHA Convention in Orlando, Florida.

"Fellowship is one of the highest forms of recognition given by ASHA of an individual's accomplishments and is a public declaration of your outstanding professional achievements," wrote Brian B. Shulman, Ph.D., CCC-SLP, ASHA Fellow, Chair, ASHA Committee on Honors, in O'Gara's award notification letter.

A board certified speech language pathologist, O'Gara is a nationally known lecturer and instructor, and director of the cleft lip and palate and plastic surgery services at Shriners Hospitals for Children — Chicago. She also serves as a graduate instructor in the Northwestern University Speech Language Pathology master's program, teaching about craniofacial anomalies, including cleft palate.

pioneers in pediatrics

Patient Is Nation's Top Recruit

After receiving rehabilitative care for his spinal cord injury, Peter found his passion: wheelchair hoops

Peter, the nation's No. 1 wheelchair basketball recruit, has signed to play for two-time defending national champion Alabama. The teen is also a patient at Shriners Hospitals for Children — Chicago, where he received care through the spinal cord injury rehabilitation program. He's been profiled in the *Houston Chronicle* and on E:60 on ESPN2. Peter, now 18, discovered the game of wheelchair basketball as part of recreational therapy during his stay at the Chicago Shriners Hospital when he was 10. He came to the Chicago hospital for rehabilitation after being in a motor vehicle crash that claimed the lives of his parents and left Peter and his younger brother, Aaron, with spinal cord injuries. Aaron also plays wheelchair basketball.

Shriners Hospitals for Children opened the country's first pediatric spinal cord injury rehabilitation program in 1980 at the health care system's hospital in Philadelphia, Pennsylvania. Similar programs were started a few years later at the Shriners Hospitals for Children in Chicago, Illinois, and Sacramento, California. Our health care system continues to be recognized worldwide as a leader in pediatric spinal cord injury rehabilitation and management, and is the only multihospital health care system in the United States with spinal cord injury rehabilitation and

management programs designed specifically for children and teenagers.

Peter has signed on to play for Alabama.

Spinal Cord Injury Services

Comprehensive inpatient and outpatient services, directed by physicians specializing in pediatric spinal cord injury, may include:

- Critical and intensive care
- Orthopaedic, plastic and reconstructive surgery and neurosurgery
- Physical, occupational, recreational and speech therapy
- Psychosocial guidance and assistance, including counseling and support services
- Exercise-based wellness and fitness programs
- Experiential programs to encourage confidence and independent living skills
- Urological consultations and surgery

+Online Exclusive

Learn about another impressive athlete, Poppy, who helps a college softball team. Watch the video at **myleadersincare.com/poppy**.

Peter and Aaron receive care through

injury rehabilitation

the spinal cord

program.

Champions In Healing

A FAMILY-CENTERED APPROACH TO COMPASSIONATE CARE



Creative hobbies give many patients a way to express themselves

Grace Anna finds her strength through song.

Anna!" That's how the little girl likes to start her videos, looking into the camera with confidence and joy. "Today we are going to sing *Into the*

Unknown by Elsa," she announces. With a deep breath and an emphatic downward swing of her arms, she begins those four ethereal, mystical notes from *Frozen II*, so familiar to many little girls: "Ah ahh ah ahhh," she sings.

Grace Anna, 9, a patient of Shriners Hospitals for Children Medical Center — Lexington, has been singing since she was 22 months old, said her mom, Angela. Like many Shriners Hospitals patients, Grace Anna finds strength and solace through creative endeavors, such as music. >>

11 Therapeutic Gardens in Bloom | 13 Wellness in Action | 14 Virtual Visits to State Parks

Making a difference with music

Grace Anna was born with chondrodysplasis punctate, a group of disorders characterized by the formation of small, hardened spots of calcium on the "growing portion" of the long bones or inside other areas of cartilage in the body. Her condition is also commonly associated with disproportionate and asymmetric shortening of long

Grace Anna Sings

To learn more about Grace Anna and to see videos of her performances, visit these websites:

facebook.com/graceannasings
 graceannasings.org

bones, curvature of the spine and short stature.

Grace Anna receives medical care from 14 different specialists, including the orthopaedics team at the Shriners Hospitals Lexington facility. Through it all, she keeps singing. Her performances include singing

the national anthem at sporting events and singing at church, and she even appeared on Katie Couric's show, *Katie*, when she was 3. Her favorite song is *Amazing Grace*.

"Music helps her face the mountains she has to climb, such as surgeries and therapies," her mother said. "When she's scared, she sings to ease her fears. Singing is her outlet to express who she is and to help her make a difference in this world."



Feeling just like everyone else

Nick, II, who was born missing both of his hands, also finds joy in music. "I like music because it has always made me feel good," said Nick.

Knowing their son's love for music, his parents wanted him to be able to play in the fifth-grade band. After thinking about which instrument would be best, his teacher and parents opted for the trombone.

Nick and his family, who live in Nebraska, worked with the team at Shriners Healthcare for Children — Twin Cities to identify the best prosthesis. They selected a standard prosthetic hand,

which would provide the stability needed to hold and play the trombone. A Shriners Hospitals outreach clinic in Boys Town, Nebraska, helped make the process easier for Nick's family – instead of traveling back to Minneapolis to have Nick fitted with his prosthesis, follow-up care was available closer to home.

What's it like being in the band? "It is nice to be like everyone else," said Nick. "Being in band is also a lot harder than I thought. Learning the notes has been a challenge.

"I like to play the trombone and sing, because I can do that and stand out for doing it, not stand out because of my disability."



Healing through embroidery

For some patients, a creative activity can have therapeutic benefits. That's the case for twins Katelyn and Aubrey, 18, who have received care at Shriners Hospitals for Children — Salt Lake City for multi-

ple hereditary exostoses (osteochondromas), a rare condition that causes tumors to grow from the growth plates of long bones. Effects of the condition can include pulled muscles, dislocated and bowed bones, and stunted bone growth. It can cut off circulation and can make movement difficult.

After some corrective surgeries, Katelyn's left arm bowed from using crutches, and it was discovered that her left ulna (a bone in the forearm) had not grown fully. She stopped using her arm due to the pain, and her hand started to cramp from the disuse.

When their older sister taught the twins how to embroider, Katelyn fell in love with the craft. "Suddenly my cramped hand loosened, and I didn't feel as much pain in my arm," said Katelyn. "My sister Megan would draw on fabric and I would embroider it in."

The girls love to write stories with intricate characters, and Katelyn started to embroider the characters from her stories. "It was a way of expressing how detailed I am with these characters," said Katelyn. "I had embroidered over 60 different characters before teaching Aubrey all my techniques, so she could embroider all her characters."

For Aubrey, embroidering seemed like it might make things worse. As she saw how much it was helping her sister, she gave it another try. "I wasn't the best embroideress, but it helped calm my nerves and exercise my hand like one giant muscle."

Shriners Hospitals for Children — Salt Lake City Occupational Therapist Roxann Beauregard was impressed by the sisters' efforts. "The primary goal of occupational therapy is to help a person participate in activities that are meaningful in order to facilitate their health and well-being," said Beauregard. "As Katelyn and Aubrey embroider, they not only have less pain, but they feel a tremendous sense of accomplishment, fulfillment and joy."



Getting into the groove

Dancing is another way some Shriners Hospitals for Children patients enjoy life and express themselves.

One young dancer is Sarah, who was born without a left leg and hip. Her parents were told by many doctors that she would never crawl, walk or even roll over. Then her family was referred to Shriners Hospitals for Children — Erie, where she received her first prosthesis when she was 2. Sarah started walking before long, but she wanted to dance.

Sarah started ballet as therapy, but it has given her so much more. It has helped her physically, improved her self-confidence and given her the chance to build friendships with other dancers.

"Dancing has been a tremendous therapy for her," her mother, Jocelyn, said. "Dance is her whole life. She loves it." Sarah, now 8, has appeared in many productions and

has performed in Moscow Ballet's *Great Russian Nutcracker*. "Sarah's love for dance is the reason she's so productive," said care manager Sue Birkmire, RN. "It motivates her to be independent, and she has used it as a way to overcome obstacles." +Online Exclusive

Thanks to his prosthesis, Angel, 9, can explore the word of dance. Visit **myleadersincare.com/ angel** to read his story.

In Bloom!



Patients throughout our system reap the many benefits of gardens

Shriners Hospitals for Children strives to provide an encouraging, nurturing environment where children and families can find respite, calm and emotional strength. At Shriners Hospitals, we offer what we call "wrap-around care" – care that includes an awareness of the overall health and well-being of our patients and provides support and services to help them recover to the fullest extent possible.

At some locations, this includes having gardens available for our patients and families. The styles and purposes of the gardens are as diverse as nature itself. They range from quiet places, to gardens that can be used for rehabilitative and therapeutic purposes, to actual vegetable and herb gardens where patients can plant, grow, harvest and enjoy the end results. Here are a few examples:

Backyards and butterflies

Shriners Hospitals for Children — Chicago has award-winning backyard gardens and is a registered official monarch butterfly waystation. Patients like 4-year-old Anastasia can learn to care for plants, and raise and release butterflies as part of their recreational therapy.

"That is one of Anastasia's favorite places in the world," her grandmother, Angela, said. "She still talks about it."

The recreational therapy staff say experiences like raising butterflies help patients work toward individual therapy goals. "Working with plants and in nature can calm and focus the mind, allowing for progress in a child's goal areas. The same garden activity can work on one patient's fine motor skills, while another patient may experience improved development of appropriate conversation skills," said Amanda Hogle, CTRS, a certified therapeutic recreation specialist.

In addition, every Tuesday the hospital offers horticultural therapy in partnership with the Chicago Botanic Garden. The partnership was featured on the PBS program *Urban Nature*.



The Chicago hospital's gardens have specific functions around the backyard. "Each of the areas of our accessible patient gardens has a therapeutic purpose ... the butterfly garden, the aqua garden and fairy gardens, and most recently the serenity garden, which features a bubbling fountain, covered pergola and bricked pathways," said Hogle. >>



Patients learn to cook with the produce they grow.

A bountiful harvest 🏹



Timmy's Garden began in 2015 in the backyard of the Shriners Hospitals facility in Erie, Pennsylvania. It has bloomed into a place where patients plant fruits and vegetables and tend to them as the summer progresses. The patients love being outside, getting their hands dirty, digging holes, planting seeds and working the hose.

The activities do not end after harvesting the crops. Patients also learn how to cook the fruits (and vegetables) of their labor and can even enter a cooking competition. Patients are divided into teams and asked to create their best dish. At the end of the day, everyone is a winner with Timmy's Garden.



A cultivating experience

Working with Portland Nursery, Shriners Hospitals for Children – Portland offers a weeklong gardening camp.

"Our annual gardening camp incorporates different activities to encourage social interaction and shared experiences amongst our patients," said Caroline Scott, recreational therapist. "On our first day of camp, we plant a seed, and each day when the patients arrive, they check on how the seed is growing. This encourages critical thinking and exploration in a setting that's not as high-pressure as school, and they're not being compared to their peers.

Juliet, a patient at Shriners Hospitals for Children — Portland, has attended the weeklong gardening camp twice. "Bug day" was one of Juliet's favorite memories of gardening camp. "Everyone got a chance to learn about bugs, and at the end of the day, the kids released ladybugs outside in the garden," said her mother, Karen.

Kids who go to gardening camp also get valuable

lessons in critical thinking.

A rehabilitative landscape

At our Pasadena, California, location, the landscape design creates a healing environment especially conducive to rehabilitation. The series of therapy gardens on the first floor uses different materials for varying levels of patient recovery.

The berm garden features braided pathways and embankments for patients to climb and crawl over. Between these are ramps and stairs with handrails designed at different slopes for patients to begin learning to walk over more challenging terrain. Benches make the recovery experience more inclusive for parents and family members.

The medical center building features multilevel, healing-centered landscapes. The second-floor Therapy Balcony and Light-Well Garden provide spaces for healing and rehabilitation without leaving the building, allowing patients at different recovery levels to experience the landscape before advancing to the exterior therapy gardens. The third-floor Sky Garden provides hospital staff panoramic views of the outdoor courtyards, plazas and gardens below and beyond the San Gabriel Mountains.

A new purpose for a playground

During the summer, the playground at Shriners Hospitals for Children — Shreveport is home to the Garden of Eatin'. Conceived by the hospital's nutrition services staff in conjunction with the Northwest Louisiana Master Gardeners Association, the Garden of Eatin' provides an opportunity for patients to plant, harvest and taste fresh vegetables and herbs, reinforcing hospital initiatives promoting healthy eating. Patients are encouraged to develop their green thumbs throughout the growing process, helping reap both the physical and educational benefits associated with gardening.

"Garden-based education has been proven to help improve academic performance in children," said Heather McKenzie, director of nutrition services for the Shreveport Shriners Hospital and coordinator for the garden project. "Teaching children to garden gives them life skills of independence and sustainability while encouraging them to eat more vegetables."





Wellness in Action

With recreational therapy, kids discover the possibilities

From archery to wheelchair basketball, there are more activities for children with disabilities than ever before. Shriners Hospitals for Children offers patients the opportunity to participate in a wide range of options, helping them have fun, gain confidence, learn about physical fitness and discover limitless possibilities. Throughout the health care system, our patients are getting active and proving that anything is possible.

Paddling toward success

The WASUP (Wheelchair Adaptive Stand-Up Paddling) initiative at Shriners Hospitals for Children — Honolulu allows kids with disabilities, including those who have difficulties with balance or require assistance paddling, the opportunity to get out on the water and enjoy what was previously impossible: paddling a board from a wheelchair.

WASUP participants often encounter marine life while on their WASUP BoardTM. "I had so much fun!" said a 7-year-old patient. "I saw turtles and fish, and I didn't want to stop!"

Initiated in September 2016, the program is a collaboration between Shriners Hospitals for Children — Honolulu and

the Adaptive Freedom Foundation. Hospital recreation therapy staff plan the activities and transport patients to nearby Ala Moana Beach Park, while Adaptive Freedom Foundation brings the equipment and trains staff.

For many patients, getting into the water can be difficult. WASUP provides an experience they will never forget while introducing them to a new way of staying fit and living well.

"Stand-up paddleboarding has grown into a popular ocean sport for many, so we wanted to ensure that our patients get the opportunity to do it, too," said Helene Freni-Rogers, recreation therapy manager. "Seeing their smiles while on the water is priceless."

Going with the FLOW

Recreational therapy at Shriners Hospitals for Children — Chicago provides year-round FLOW (Friendship, Leisure, Opportunity and Wellness) programming, including indoor and outdoor golf, horseback riding, archery, adaptive waterskiing, wheelchair basketball and even opportunities to try scuba.

The activities provide physical,

social and emotional benefits. "When our patients sign up for various recreational events, they meet new people who like what they like and hopefully make new friends along the way," said Darlene Kelly, director of recreational therapy/child life at Shriners Hospitals for Children — Chicago.

Noah, 9, participates in many programs, including adaptive scuba, which is hosted in the indoor therapy pool in partnership with the Illinois Institute of Diving. Noah's mom, Leah, said Noah feels like

herself at Shriners Hospitals. "I think the biggest difference for her is that when she goes to Shriners, she's not different," said Leah. "Nobody looks at her, nobody is like, 'Wait for Noah.' They seamlessly make accommodations for her without her feeling like she is lacking in any sort of way. They make her feel just as able as any other kid." >>



Programs on the Move

Recreational therapy programs are offered throughout our health care system. Here are some highlights:

- > Erie, Pennsylvania: The Erie Adaptive Sailing Experience (EASE) offers youth with disabilities the opportunity to sail independently using specially designed access dinghies. The Erie location is also home to the Mighty Otters sled hockey team, started in 1997. Sled hockey follows regular ice hockey rules, but the players are seated on specially designed adaptive sleds.
- > Northern California: Complete with eight weekly fitness sessions, the BikeFit exercise program is organized by the rehabilitation team in partnership with the motion analysis center. Patients ages 5 to 18 who want to improve their fitness and function are invited to join. BikeFit participants are fitted with an adaptive cycle, which they can take home after successfully completing the program.
- > St. Louis, Missouri: After identifying a need for aquatic activity for limb-lengthening and reconstruction patients, Shriners Hospitals for Children — St. Louis initiated an aquatic therapy program at a local YMCA. Patients using external fixators receive specialized swimming services year-round in an indoor pool, getting the chance to exercise and have fun.
- > Springfield, Massachusetts: Specifically designed for patients ages 5 to 21 with a neuromuscular condition, such as cerebral palsy, the Bfit program offers two individualized power training exercise programs that are designed to help improve strength and function. One is an exercise-based program and the other emphasizes cycling.

Making strides through play groups

When 2-year-old Annika first arrived at the spina bifida play group at Shriners Hospitals for Children — Salt Lake City, she was incredibly shy and didn't talk to anyone. But her eyes widened as she observed kids getting



Kids socialize and make progress in the play groups at the Salt Lake City Shriners Hospital.

out of their wheelchairs on their own, moving around and interacting with each other, as kids do. When Annika got home from the hour-long therapy play group, her mom, Jennifer, was shocked to see Annika try things she never had before, like getting out of her wheelchair and trying the stairs. One day, as they prepared to leave for play group, Annika said, "Mom, I'm going to Shriners, and we all crawl."

Jennifer has found the program to be extremely beneficial. "We love play group because it gives her a chance to be with kids who are like her, which she doesn't get on a day-to-day basis," she said.

Recreation Therapist Laura Lewis-Hollingshead started the therapeutic play groups in 2014 in collaboration with the physical therapy staff. By putting the kids in groups of similar age and diagnosis, the kids learn from each other and form strong social bonds.

"We're not limited to just the physical goals. We actually broaden those to psychosocial goals, as well," Lewis-Hollingshead said. "We focus on ways that these kids can interact and create friendships." And, she noted, those friendships are not limited to the patients. "They extend to the parents, too. We create this support network, and that ties into the child's wellness."

As part of the PORTS program, kids can visit parks and meet animals virtually.

+Online Exclusive See a photo gallery of kids experiencing the PORTS program at myleadersincare.com/PORTS.

Virtual Outing

Kids visit state parks from inside hospital walls

Patients of Shriners Hospitals for Children — Northern California can visit the California redwoods, get up close and personal with elephant seals, and track the 1,000-mile migration of monarch butterflies – without leaving the hospital grounds. These educational experiences, and others like them, are possible thanks to a unique learning program sponsored by the California Department of Parks and Recreation.

Parks Online Resources for Teachers and Students (PORTS) uses interactive videoconferencing to introduce kids to many of the state's natural wonders. The tours take place through a smartboard in the hospital's schoolroom. The children can speak directly with park rangers who introduce the animals and landscapes that appear on the screen.

"This is a spectacular opportunity for our students," said Margaret Kugler, coordinator of the hospital's school program. "Children who are undergoing medical treatment often are unable to travel to these distant places. Thanks to PORTS, our patients are able to see and appreciate some of the state's most notable landmarks and natural resources."



EVENTS, NEWS AND INSPIRATION FROM THE SHRINERS COMMUNITY

Dr. Workman leads kids in a strengthtraining drill.

WORK HARD, P

Physical therapist (and Shriner) turns rehabilitation into a team sport

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Dr. Workman (center), with fellow Shriners Jeffrey L. Sowder (left), chairman, board of directors of Shriners Hospitals; and Ben Ali Shriners Past Potentate Chris Chediak (right) n work and in play, Bill Workman, PT, DPT, SCS, OCS, CSCS, keeps his eye on the goal. As a physical therapist specializing in sports injury rehabilitation, he helps aspiring athletes return to the playing field by turning physical therapy into a team sport. On Thursdays, Dr. Workman leads kids recovering from injuries through a series of agility and strength-training drills. His "team" is composed of patients in the sports medicine program at Shriners Hospitals for Children — Northern California. More than 200 young athletes have participated in the team training since it began two years ago.

"These athletes are sharpening their movement skills and developing life skills. They learn how to set realistic goals and be active "These athletes are sharpening their movement skills and developing their life skills. They learn how to set realistic goals and be active in the decisionmaking process so they have some control over their destiny."

– DR. WORKMAN

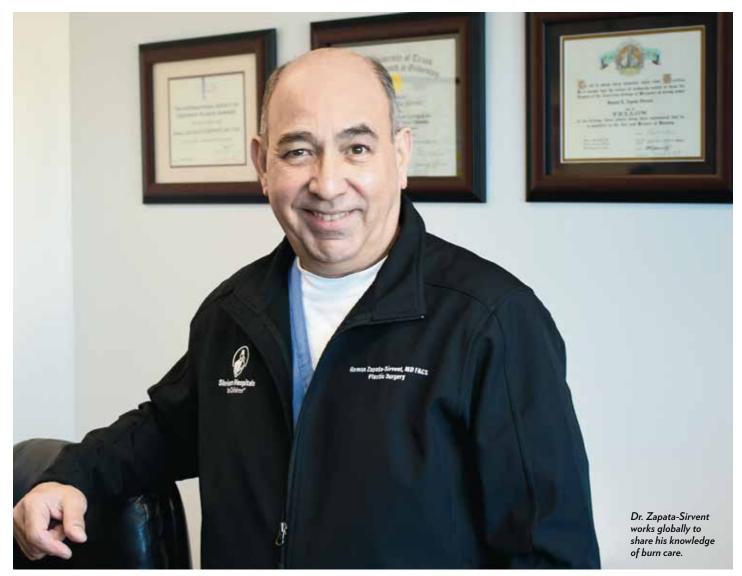
in the decision-making process so they have some control over their destiny," said Dr. Workman. "They learn to move with confidence, and it is that confidence that will carry them back to their sport. I am pleased to report that the success rate is extremely high for returning to sports without injury."

Dr. Workman's desire to help kids achieve their goals inspired him to become a Shriner. He became a member of Ben Ali Shriners in Sacramento, California, in October 2019, during a ceremony at the hospital.

"I am humbled to be part of a brotherhood of men that focuses on personal growth and who dedicate themselves to providing care for children and families in need," Dr. Workman said.







Meet Dr. Zapata-Sirvent

An international authority in children's reconstructive burn care

An accomplished plastic surgeon, leader and educator in burn care, Ramon Zapata-Sirvent, M.D., has been an integral part of the surgical team at Shriners Hospitals for Children — Galveston for the past three years.

Born and raised in Caracas, Venezuela, Dr. Zapata-Sirvent knew at a young age that he wanted to become a surgeon and help others. Early in his career, working in the University of Colorado's burn unit under the mentorship of John A. Boswick, M.D., one of the founders of the American Burn Association, and John F. Hansbrough, M.D., he found his true passion for helping burn survivors.

Dr. Zapata-Sirvent went on to author eight books on burn care and plastic surgery and hundreds of papers specific to reconstructive care, sharing his knowledge with burn care professionals across the globe.

Before returning to the U.S. to work for Shriners Hospitals for Children, Dr. Zapata-Sirvent became known in Venezuela and across Latin America as a medical leader, working to improve burn care in a country with a large oil and gas industry (which can involve dangers that lead to burn injuries), and later founding the Venezuelan Burn Association. Dr. Zapata-Sirvent also served as president of the Venezuelan Society of Plastic, Reconstructive, Aesthetic and Maxillofacial Surgery, and is currently a member of the board of directors of the Ibero-Latinoamerican Federation of Plastic Surgery.

He enjoys spending time with his six grandchildren who live in the U.S., and continues to use his surgical talent and passion for helping children with burn injuries live without being confined by their scars. $\widehat{\bullet}$

Dr. Zapata-Sirvent has authored eight books on burn care and plastic surgery.

A True Leader of Care

Chief of staff to head international organization

Romanowski, M.D., in leading a multidisciplinary team that includes skilled reconstructive plastic surgeons, anesthesiologists, nurse practitioners, psychiatrists and psychologists, burn technicians, occupational and physical therapists, nutritionists, social workers, pharmacists, child life specialists, schoolteachers, and orthotists and prosthetists. They work in concert to maximize patients' cosmetic and functional outcomes.

Research efforts improve treatments and lives

Burn-related research at the Northern California Shriners Hospital encompasses everything from how the body reacts to severe stress, to diagnostic tools that can be used at the bedside when treating critically injured children. Dr. Greenhalgh performs research related to the response to injury, cell signaling

and the regulation of wound healing and scar formation. Some of Dr. Greenhalgh's specific research efforts include studies of how skin responds to injuries and how that injury results in damage to other organs. He specifically focuses on how injury can alter the cell receptor that responds to the body's stress hormones, especially steroids (cortisol).

Dr. Greenhalgh is also a member of the American Association for the Advancement of Science and the American Surgical Association. Respected worldwide as a leader in pediatric burn care and research, Dr. Greenhalgh routinely shares his knowledge and expertise with audiences around the globe. 🕡

David Greenhalgh, M.D., chief of burns at Shriners Hospitals for Children -Northern California and a past president of the American Burn Association, will be installed as president of the International Society of Burn Injuries (ISBI) in August. A main purpose of ISBI is to share information with its members in order to increase and improve burn prevention. ISBI has more than 1.000 members from 95 countries.

A recognized leader in burn care

Board certified by the American Board of Surgery, with added qualifications in surgical critical care, Dr. Greenhalgh manages all aspects of burn care at Shriners Hospitals for Children — Northern California and at the University of California, Davis, School of Medicine. Dr. Greenhalgh has

The ISBI has more than 1.000 members from 95 countries.

published and presented extensively in the areas of burn injury, burn care and burn prevention. In 2019, an article by Dr. Greenhalgh, Management of Burns, was published in the New England Journal of Medicine. The article focused on the principles and



David Greenhalgh, M.D.

practices that lead to the best outcomes for patients with burn injuries.

Dr. Greenhalgh is joined by Tina Palmieri, M.D., assistant chief of burns; Soman Sen, M.D.; and Kathleen

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OUR COMMUNITY PROVIDERS AND PATIENTS MAKING US PROUD

GOING FOR GOLD

NAME: ANDREA

TREATED FOR: FIBROUS



Andrea sustained a fractured femur when she was 11 months old. Her parents took her to the hospital where her leg was casted and she went home. In the couple of years that followed, she experienced two more fractures, and then a third. Her doctors decided to place an intramedullary nail, which caused the bone to be infected, causing Andrea to be hospitalized for almost a month.

A friend of Andrea's grandmother told them about Shriners Hospitals for Children – Mexico. When Andrea and her family arrived at the hospital with her X-rays in hand, they received a diagnosis almost immediately: Andrea had fibrous dysplasia in her left femur.

Andrea sustained two more fractures, one of which left her in a cast for six months. The physicians at the Mexico Shriners Hospital presented Andrea's family with two options: removing her leg or doing a bone transplant. At the age of 5, Andrea had her leg amputated and started a new life.

Today, Andrea is 15 years old and on the Mexican National Paralympic swimming team. She swims 5 to 6 kilometers a day and only sees her family on weekends. She has traveled to competitions throughout Mexico and in Brazil. Andrea competed in Indianapolis, Indiana, to qualify for the Parapan American Games in Lima, Peru, in 2019, and she will participate in the Paralympic Games in Tokyo, Japan, this summer.



Vol. 11, No. 1 | Spring 2020 Shriners Hospitals for Children®

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Leaders in Care is published four times a year by Shriners Hospitals for Children. ©2020. All rights reserved. Publication management by GLC

SHC-004

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