

Health *for* Life

PRESENTED BY KERN MEDICAL

Summer 2018

Stay Cool
in the heat



looking
at treatment

through the lens of
prevention

+

navigating
the roadmap
of the human body

Love comes **FULL
CIRCLE**

A mother seeks treatment
for a mysterious illness

Kern Medical Family Medicine



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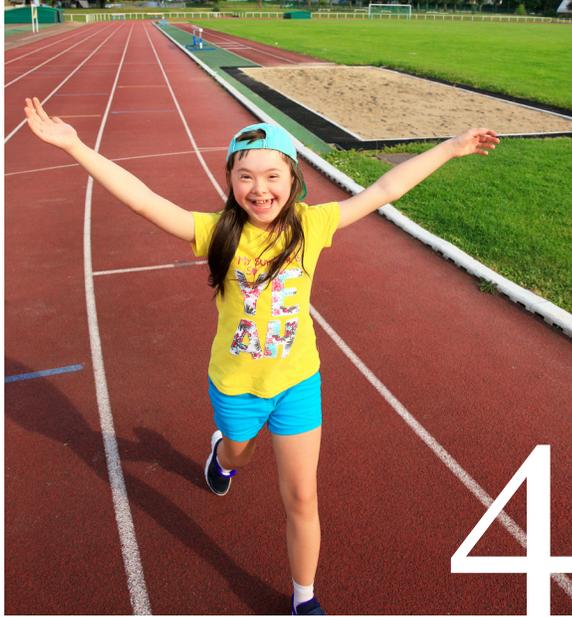
Shakti Srivastava, MD
Gohar Gevorgyan, MD
Shweta Agarwal, MD
Santhi Kanuri, MD

661.326.2800

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Edwin Cabahug, FNP
Helen Capehart, FNP
Guadalupe Galindo, FNP
Eleanor Leal, FNP
Leah Pascual, FNP

**Not all providers available at both locations



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SUMMER 2018

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We hope you enjoy this edition of Health for Life. Comments about the publication can be directed to the Marketing & Communications Department:

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ADVERTISING



building a foundation for the future

As we move forward from our 150th anniversary, we want to establish Kern Medical as a leading provider of tertiary care. We are continuing our legacy of putting our patients first and excelling in key areas of medical advancement in order to better serve our community. In the coming months, we will also be putting particular emphasis on implementing the programs and services that allow our doctors, nurses, and staff to give patients an enhanced experience at Kern Medical.

Internally, Kern Medical is advancing technologically, becoming equipped to assist and manage patient care in a more orderly, proactive way. We are in the process of implementing a new electronic health record system, which will be fully completed by summer of 2019. This system is focused on enhancing the patient experience in all facets, maintaining records in an organized fashion, and supporting the technological demands of the 21st century.

Kern Medical is poised to bring in new specialties to expand our expertise and breadth of work, further eliminating the necessity for a patient to travel out of the area to receive state-of-the-art care. We are ready to stack our team, adding a robust group of experts to the lineup and creating an environment of excellence within our organization. We have recently brought in two of the top hand and reconstructive surgeons, Drs. Matthew Malerich and David Bowen, to our team, as well as elite physicians in other fields, such as trauma, epilepsy, family medicine, pain management, pediatrics, oral maxillofacial surgery, and radiology. We also have the only urogynecologist in the area and an experienced team of neurosurgeons on site. Through the Veterans Choice Program, veterans are able to seek treatment at Kern Medical, avoiding strenuous travel.

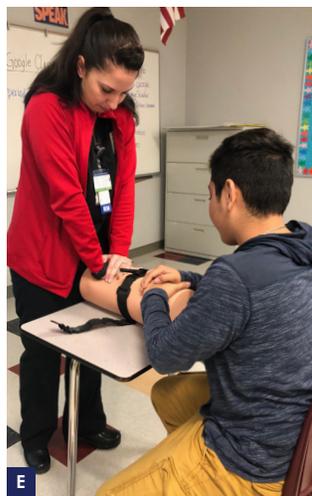
The Kern Medical Surgery Center, located on Stockdale Highway, will open later this year, bringing a new outpatient surgery option to the residents of Bakersfield. This will reduce wait times and increase efficiency and convenience for all types of outpatient surgery—another supportive element in our infrastructure aimed toward improving the patient experience.

We at Kern Medical are focusing on creating a solid foundation that will allow us to better meet the needs of our community. Right now, that means improving our internal systems, expanding our reach, and assembling the most qualified teams to bring the highest-quality medical care to Kern County. This groundwork will allow us to add more physicians, services, and locations in the future. We look forward to giving you our very best, year after year.

Russell Judd
CEO, KERN MEDICAL

Kern Medical Leads the Way

The leaders at Kern Medical are spearheading innovation on every level, both within the organization and out in the community. In an effort to provide more for our community, we continue to participate in events and connect with the people we serve.



Pictured clockwise from top left:

A) Jeffery Hill, Kyisha Clay-Roby, Bre Ann Harrington, Jina Pappas, Veronica Lomely, and Monette Hoburn are honored at the 11th Annual Association of Kern County Nurse Leaders RN of the Year event. B) Miranda Du Toit and Bre Ann Harrington attend the March of Dimes walk at Riverwalk Park, where Kern Medical won the awards for best t-shirt and team spirit. C) Lori Tolleson discusses various careers in healthcare with students. D) Aidee Cardenas and Miranda Whitworth-Muñoz promote Refine, Kern Medical's new medical Spa, at the Bakersfield Women's Business Conference. E) Connie Green instructs a student during Stop the Bleed training.



Sports,
Support,
and
Success

Contributed Content by
Kellie Peterson

In Kern County, 500 athletes between the ages of 2 and 78 have the opportunity to forge new friendships, train, and compete all over the state, nation, and world through Special Olympics Southern California, Kern Region. Their mission is to provide free, year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities. Special Olympics provides continuing opportunities to develop physical fitness, demonstrate courage, experience joy, share gifts, learn skills, and build new relationships with other Special Olympics athletes and the community.



“Special Olympics transforms lives through the joy of sport, every day, everywhere.”

– Special Olympics Southern California

Kern County athletes have the opportunity to train and learn about injury prevention through Special Olympics Kern County's partnership with Athletes' Advantage Academy. Athletes who have participated in this program have lost weight, lowered their blood pressure, and gained a renewed sense of positivity and confidence. All of the Kern County Special Olympic competitors are getting ready for the 2018 Summer Games in Los Angeles. During the Summer Games, athletes can visit the Healthy Athletes Village. Between competitions, athletes can stop by the village for a full health screening, where medical professionals are offering checkups in a variety of areas, including eyes, ears, bones, and flexibility, to name a few.

In May, Special Olympic athletes from Southern California headed to Bakersfield to compete in the Championship game for swimming. These athletes competed for gold, silver, and bronze medals and ribbons. However, this isn't the first time Kern County played host for the Special Olympics. In 2015, they were the host town for athletes from Kenya and Jordan at the World Games in Los Angeles. Next year, during the 2019 season, athletes from the Kern County floor hockey team will head to Dubai for the World Games.

In the past 25 years, Special Olympics has grown exponentially, helping athletes of all ages make friends, memories, and challenge themselves mentally and physically. The Special Olympics athlete spirit starts the very first time athletes get into the pool, hold a tennis racquet, or gain the courage to walk onto the field.

Special Olympic athletes can participate in a variety of sports throughout the year.

Sports offered to Special Olympic athletes:

Spring:

- Track & Field
- Basketball
- Swimming
- Bocce Ball
- Flag Football

Fall:

- Golf
- Soccer
- Volleyball
- Tennis
- Softball

Summer:

- Bowling

Winter:

- Floor Hockey

Coming Soon: Cheerleading

Kellie Peterson is the Regional Sports Manager for Special Olympics Kern County. For more about Special Olympics Southern California, Kern Region visit <https://www.sosc.org/kerncounty> or call (661)383-2909.



GOING TO BAT FOR *Local Kids*

Contributed Content by
Heather Frank

Imagine being able to impact the life of a child by inspiring them through opportunities to foster their artistic skills, promote fitness and friendship, and provide them with at least one essential meal per day. Now, picture that same impact amongst 7,000 children in a single day. That is what the Boys & Girls Clubs of Kern County (BGCKC) do for the community.

As the largest Boys & Girls Clubs organization in the country, BGCKC has 63 clubs in 10 different Kern County school districts. They employ more than 475 individuals, with an additional 50 volunteers serving at any given time. It is easy to see the impact the BGCKC is having on the futures of Kern County residents.

The Boys & Girls Clubs of Kern County's mission is to help young people reach their full potential as productive, caring, and responsible citizens. They offer a variety of programs that help them accomplish this mission. One such program is the Healthy Habits curriculum that teaches children the importance of a healthy lifestyle, from food choices to exercise.

Another focus of BGCKC are the after-school programs that offer students from kindergarten to high school

a safe space to get help with their homework and learn the skills they will need to excel academically and socially. BGCKC works to meet the specific needs of each community by partnering with their local schools and families. They strive to create the most effective academic enrichment, physical fitness, nutritional and life skill programs to challenge children and make learning more engaging.

On April 28, 2018, The Boys & Girls Clubs held the Spring Nestlé National Fitness Competition as part of their Healthy Lifestyles initiative. The competition focused on getting kids on their feet, while boosting their self-esteem. Around 200 club members participated in the Fall National Fitness Competition and volunteers from Nestlé and the California State University, Bakersfield Women's Basketball team were there to give a helping hand.

The Boys & Girls Clubs bring together communities to support and develop young people into thoughtful, prepared, and contributing citizens of the world. Mission (always) accomplished!

Children Showcase Their Talents

Children from ages 5 to 18 are welcome to participate in the Bakersfield Youth Fine Arts Academy this summer. During the Academy, students will learn lines, choreography, and rehearse Roald Dahl's Willy Wonka in preparation to perform the show for family and friends.

The afternoon session will have their performances on July 13 and 14, and the morning session will perform on July 20 and 21.



Heather Frank is the Director of Development at Boys & Girls Clubs of Kern County. You can contact Heather by emailing her at: hfrank@bgclubsofkerncounty.org







The Bonds of Motherhood

Kiley Norvell STAFF WRITER

One moment, Ashley was happily pregnant and healthy. The next, she was fighting for her life—and her baby's.

a



From Left: A) When Ashley posed for this pregnancy photoshoot, she was happy, healthy, and had no idea what troubles awaited her. B) Ashley holds her baby, Kayleen, after giving birth and regaining consciousness. **Opposite Page:** C) Ashley is training to be an ultrasound technician at High Desert Medical College.

ashley Villegas was in her third trimester when she started feeling like she had a sore throat. She figured it was no big deal, until her temperature reached over 100 degrees. She went to a doctor right away, worried about her baby's health. She was told it was nothing to be worried about—just a fever related to her sore throat that would go away with some antibiotics.

Days went by, and the fevers persisted, reaching 103, then 104 degrees. She returned to her doctor, where she was told she needed antibiotics. Finally, her mother, Martha Villegas, convinced her to go to a medical facility, where they told her the fevers were likely related to a urinary tract infection, which is common in the third trimester of pregnancies. They treated her and sent her home.

The pattern continued for two months. Ashley would feel sick, she would see a doctor, receive a diagnosis, go home, and start to feel better again with the prescribed treatment. Then she would start to deteriorate again, rapidly becoming even sicker than before.

SEEKING ANSWERS

On April 9, 2016, Ashley began hallucinating. Her fever was extremely high and wouldn't break, so her mom drove her from their home outside of Bakersfield to Kern Medical. That's when Dr. Arash Heidari got the call about Ashley.

"Based on her presenting symptoms, I was immediately concerned," said Dr. Heidari, a leading infectious disease physician at Kern Medical. "At this point, we knew she had meningitis, but to me, it also sounded like she may have Valley Fever."

Valley Fever, or coccidioidomycosis, is a fungal infection caused by spores in the soil. When contaminated soil is stirred up, the fungus is inhaled, which can cause the illness.

Most people won't get sick, and many who do are able to combat the illness, without medication. In these cases, symptoms will disappear on their own. In some cases, however, the fungal infection can spread to other parts of the body, creating a much more serious condition. This was the diagnosis for Ashley. What followed was a delicate balancing act to save both mom and baby.

A COMPLICATED DIAGNOSIS

Dr. Heidari determined that Ashley had meningitis from Valley Fever. This is what made her case so difficult.

Upon evaluation, Dr. Heidari discovered that she had an even more unusual condition: the Valley Fever was in her vocal chords, a rare location for the disease. It had then spread throughout her body, including to her brain, bones, and eyes. In addition, the meningitis had escalated to the point of causing

seizures, further complicating her condition.

The most important complication to Ashley's treatment was her pregnancy. Many medications for treating Valley Fever would be toxic for the fetus, causing birth defects. On April 11, 2016, the team made the decision to induce labor early. Ashley was 32 weeks pregnant.

"I wouldn't be here today without Kern Medical."

Thanks to a team of Kern Medical experts, Ashley's baby was delivered with no complications. Baby Kayleen Kroeger arrived healthy, unaffected by the illness wreaking havoc on her mother's body.

Ashley was immediately moved into treatment for Valley Fever. Doctors implanted a shunt in the back of her head to relieve pressure and reduce swelling, a result of the illness. They also inserted a port on top of her head so

that she could receive medication directly to her brain, called intrathecal treatment.

Intrathecal treatment, leading directly to the tissue surrounding the brain and spinal cord, is the most intense form of treatment, reserved for only serious cases. Kern Medical is the only place in the area where patients can receive intrathecal medications at the degree and length of time Ashley required for her treatment.

EMBRACING MOTHERHOOD

Ashley received treatment five days a week for a year straight, beginning with intracranial treatment while also including intravenous medications on alternating days. Following her stay at Kern Medical, she had limited mobility and was extremely weak.

She could barely lift the baby in her earliest days of being a mother, so her mom, Martha, and the nurses would help settle Kayleen on Ashley's chest while she laid in a hospital bed, learning to breastfeed, change diapers, and care for her baby in a new way. The process of recovery was difficult, but focusing on motherhood gave her the strength to keep going.



Today, Ashley is studying to become an ultrasound technician at High Desert Medical College. She goes to school four days a week and continues to visit Kern Medical once a week for treatments. Her daughter is two years old, as happy and healthy as can be. Martha helps care for Kayleen, allowing Ashley to find balance as she follows her dreams, receives medical care, and enjoys motherhood.

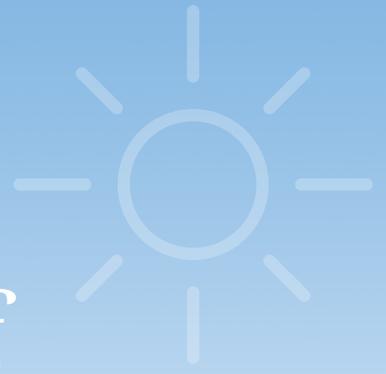
"On treatment days, I still feel off, sometimes sick, but most days I feel almost back to normal," said Ashley. "The recovery process has been grueling, but I wouldn't even be here today without

the team at Kern Medical."

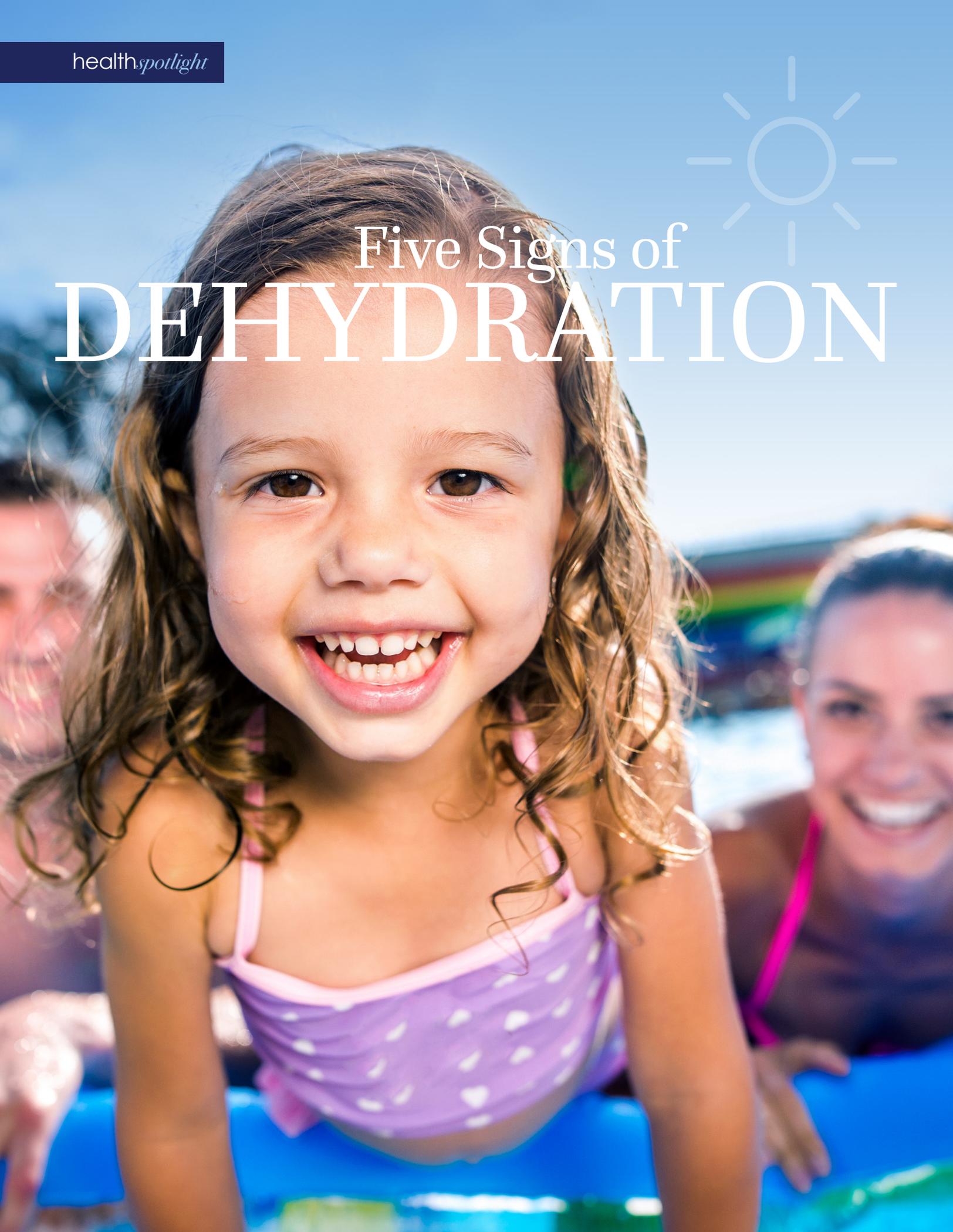
Throughout the entire experience, Ashley focused on fighting and recovering for her baby girl. She may not have even gone to the doctor in the beginning if she hadn't been pregnant—or if her own mother hadn't encouraged her to seek better care when the diagnoses and treatments weren't working.

"I won't go anywhere else for medical care," Ashley added. "No one else knows what I've been through, no one else understands. Now, my family and I will always choose Kern Medical."





Five Signs of DEHYDRATION





in the Central Valley, summer does not just mean vacation—it means soaring temperatures and increased risk of dehydration, which can take a serious toll on your kidneys. A great way to engage in healthy physical activity is to spend time outdoors, doing fun things like hiking, swimming, and playing other summer sports. Infants, children, and the elderly are at the highest risk for dehydration, but adults still have significant risk factors. Being able to recognize these five symptoms of dehydration will help you stay safe while enjoying everything summer has to offer!

1 Thirst

Thirst is your body's way of telling you to drink more water. It sounds simple, but every time you feel thirsty you should drink some water. If you follow this rule of thumb, it is easy to stay hydrated. If you begin to feel extreme thirst, however, it may be time to seek help.

2 Infrequent urination and dark-colored urine

We lose water every day through breathing, sweat, urine, and feces. We also lose salt/electrolytes in the process. Mild dehydration can typically be resolved by drinking a beverage that contains electrolytes, but moderate to severe dehydration can have more problematic consequences. Urine color is one of the best indicators of your hydration level—clearer urine means you are well-hydrated and darker urine means you are dehydrated.

3 Dry mouth

In some cases, dry mouth is most noticeable in the form of bad breath. When you are dehydrated, your mouth may not be able to produce enough saliva, which can stimulate bacteria growth. Bad breath is one of the side effects. Saliva has antibacterial properties, and staying hydrated will help you avoid dry mouth.

4 Lack of sweat or dry skin

If you stop sweating but you are still exercising or out in the heat, you are most likely dehydrated. This is one of the more serious symptoms, and could also be a sign of overheating or heat stroke. It is important to cool down quickly and rehydrate. A quick way to check if you are dehydrated is to pinch yourself and see if your skin "tents," or stays in the same position as the pinch. If it does, it shows you're likely dehydrated.

5 Dizziness

Lightheadedness is a symptom of moderate dehydration that will usually accompany another symptom, like fatigue and muscle cramping. Dizziness can also be caused by high or low blood pressure due to severe dehydration. If your blood pressure is drastically high or low, you should seek help immediately. Be extra cautious about exercising during extreme heat or at the hottest part of the day, as this can become dangerous quickly.

TIPS FOR SAFE SUMMER FUN



Avoid the sun when you can.



Cover yourself properly with light, breathable fabrics.



Wear sunscreen.



Pay attention to weather forecasts.



Wear hats with brims.



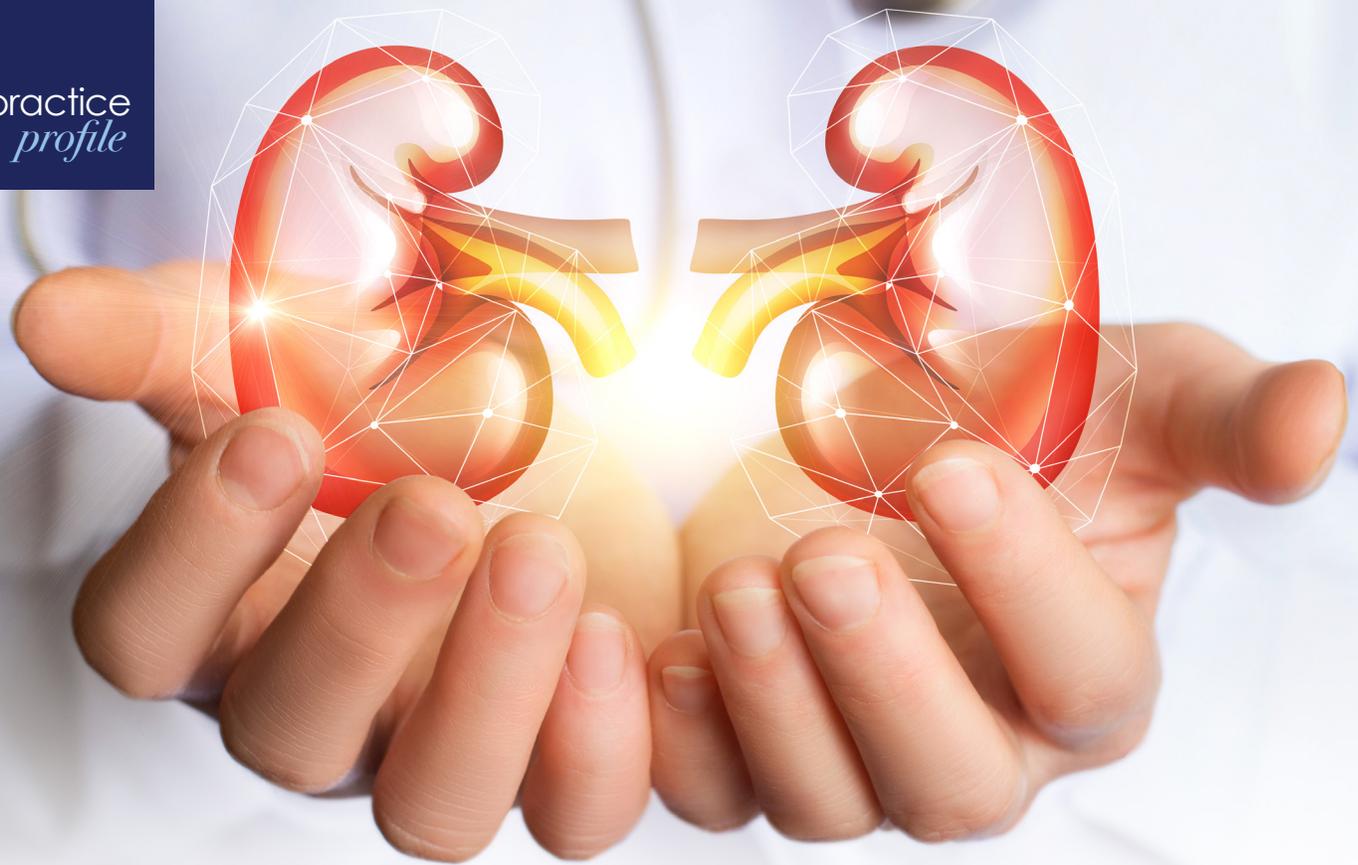
Take your water bottle with you everywhere.



Drink plenty of fluids.



Avoid sodas, which can dehydrate you more.



Prevention is the Key to Treatment

SHIFTING THE FOCUS OF CHRONIC KIDNEY DISEASE

Kiley Norvell STAFF WRITER

An average of 11.5% of adults in Kern County have diabetes, according to a California Health Interview Survey. Kern County also has one of the highest number of dialysis patients in the country. Chronic Kidney Disease (CKD) is a growing problem in this area, and limited resources lead to limited options for local patients. At Kern Medical, doctors are hoping to change perspectives: the best way to treat kidney problems may be to do more to make sure patients don't have them in the first place.

Cue Kern Medical's Nephrology Division, full of physicians who are primed and ready to reduce and eliminate CKD in Kern County. Nephrology is the branch of medicine that deals with the physiology and diseases of the kidneys. The kidneys help to control blood pressure by re-

moving excess water and waste from the body. They are organs that can cause numerous issues when not functioning properly—which is why the Nephrology Division is actively working to prevent kidney problems, in addition to treating them.

One of the most important strategies in regards to prevention is education. Community members need to know how to recognize kidney problems early on, especially if they're already struggling with diabetes, which is one of the number one reasons people have kidney problems. CKD is a progressive disease that, when caught early, can be managed and treated to inhibit critical damage to the organs.

Unfortunately, CKD can be difficult to detect. Sometimes, kidney failure be-

gins simply with fatigue and exhaustion, a symptom that often goes unnoticed. If this is the only symptom in the beginning, the disease may go undiagnosed until more serious care is required, such as a kidney transplant. Dr. Sabitha Eppanapally, nephrologist at Kern Medical, encourages everyone to have regular discussions about their kidney health with their primary care physicians.

"If you have problems with diabetes, you should see a kidney specialist once a year as a preventative measure," Dr. Eppanapally said. "If you don't have diabetes, however, you should still know the signs. For some people, it's a genetic issue, and the only way to prevent damage is to be aware."

Dr. Eppanapally is passionate about informing people about CKD. She views

her position as an obligation to reach out to the community. When a patient comes in, she wants to make sure their kidney function isn't dropping drastically, but she also wants to teach them what they should and shouldn't be doing, how often they should see the doctor, and how they can cope with this disease. She encourages her patients to make lifestyle changes, discussing the importance of the right diet and amount of exercise in conjunction with dialysis or in extreme cases perhaps a transplant, if that is the right option for them.

"A huge part of this division is sharing information to help prevent further damage," Dr. Eppanapally said. "The right knowledge can make a huge difference for the patient."

The Kern Medical nephrology specialists regularly partner with its urologists to treat kidney stones, prostate issues, and obstructions, as well as care and management of kidney cancers, working with the oncology division for the highest-quality treatments. Dr. Eppanapally, who joined the Kern Medical team in April 2017, is among the many Kern Med-

ical doctors who have trained at elite facilities around the country. According to her, the key is collaborative management of the patient.

Ultimately, the primary goal is to serve the community with comprehensive nephrology care. Kern Medical wants to be able to treat CKD during each step of its progression, from early management and dialysis to transplant referral and post-transplant care. Continuous renal replacement therapy, a dialysis treatment for critically ill patients, will soon be an option for inpatient visits at Kern Medical. The division is also currently in the process of establishing a post-transplant center to eliminate the need for patients to travel far from home to Los Angeles for the highest quality care.

"Nephrologists are essential to our area, with the high rate of diabetes, glomerular diseases, and kidney problems, as well as the high temperatures," Dr. Eppanapally said. "We're grateful for the opportunity to make a difference here through Kern Medical."

Preventative Measures

CKD may be a growing problem in our community, but fortunately, there are everyday things we can do to help prevent it for ourselves and our loved ones.

- Stay hydrated.
- Maintain a healthy weight.
- Don't smoke or use tobacco.
- Limit alcohol consumption.
- Exercise for at least 30 minutes per day.
- Follow a low-salt, low-fat diet.
- Make sure your blood pressure is normal.
- Have regular check-ups with your doctor.

Dr. Eppanapally completed her residency at St. John's Episcopal Hospital in New York and trained in a nephrology fellowship at Yale University in Connecticut.







GEAR & GRACE

Kiley Norvell STAFF WRITER

A helmet and a team of medical experts saved a student's life and sent him down the road to recovery.

For nearly all of Bryson Frank's two decades of life, he has had a passion for motorcycles. At the age of two, he gravitated toward dirt bikes, and his parents, Jenny Patten and Merlyn Frank, lovingly strapped on his helmet and taught him to ride. It was no surprise that when he

turned 16, he got his motorcycle license and a bike of his own.

Safety has been paramount since day one. His parents were diligent, and Bryson never rode without proper gear. On May 11, 2017, Bryson was headed home from school at Bakersfield Col-



A



B



C



D

From Left: A) Bryson has been riding since he was two years old. B) Having learned all about safety at an early age, Bryson purchased the appropriate safety gear when he bought his first road bike. C) Bryson's bike was severely damaged during the accident. D) Bryson was in a medically-induced coma for nearly three weeks after his accident.

“He was relatively stable, until suddenly, he wasn't.”

lege, having just finished up the last of his finals. He was going around the bend onto the Westside Parkway, wearing the most important piece of his armor: his helmet.

He was still wearing his helmet when he hit his front brake to avoid a slowing vehicle, causing his bike to wash out from underneath him. When it ended up on top of him, Bryson was already unconscious, lying on his right side, but he was alive—and his helmet was still on.

UNDER THE ARMOR

Bryson sustained massive injuries, primarily to his right side. He fractured two vertebrae, damaged his right hand, had contused and lacerated lungs, and was

covered in bumps and bruises. The worst injuries, however, were to his head.

Upon arriving at Kern Medical, Bryson's family learned that he had a severe traumatic brain injury. Dr. Joseph Chen, Chief of Neurosurgery at Kern Medical, assessed Bryson and found that there was shearing, a small brain bleed, and evidence of cerebral edema, or swelling.

Doctors immediately drilled into Bryson's brain to measure intracranial pressure with a monitor, keeping continuous track of any further swelling, which is common with traumatic brain injuries.

The staff then put him into an induced coma, gave him medications to reduce pressure, and moved him to the ICU. He remained there, unconscious and in a full brace from the neck to the middle of his back, relatively stable—until suddenly, he wasn't.

THE DARKEST MOMENT

On May 17, Bryson's oxygen levels fell significantly. Dr. Arman Froush, an inter-

ventional radiologist at Kern Medical, immediately diagnosed Bryson with a pulmonary embolism. A blood clot had lodged in the pulmonary artery, which carries blood from the heart to the lungs. Survival rates are low and the prognosis was bleak, but the team sprang into action.

Because of Bryson's trauma, anticoagulants were not an option—they would only increase the risk of internal bleeding elsewhere. Fortunately, Bryson was a great candidate for catheter-directed thrombolysis, a minimally invasive, image-guided, interventional radiology procedure that dissolves clots. (See Medical Advances for more information on interventional radiology.)

The team didn't waste any time performing the procedure, which restored blood flow to the lungs and reduced the heart strain that would have ultimately put Bryson in cardiac arrest.

“Mortality and morbidity increase dramatically with a pulmonary embolism,” said Dr. Froush. “It was truly an in-

tersection of a great candidate and the right place for the procedure."

After 20 days in the ICU, Bryson finally woke up. He was still confused, but lucid for the first time since his accident. He did not remember much, but his parents were ready to fill him in on everything he had missed.

COMING TOGETHER

While Bryson was in a coma, his family went through a very traumatic experience, painfully waiting for more news. No one could promise that Bryson would recover, but the doctors, nurses, and staff could promise that he would receive high-quality, compassionate care.

One nurse even pulled a spray bottle of detangler out of her locker so that she could comb his hair—his mother watched in wonder as the nurse picked out every foxtail that had been stuck there since the crash.

"Working with Kern Medical restored my faith in human beings," Jenny said of the experience. "They were going to do everything for him, and for us. They were all in it for the long haul. I

would not go anywhere else."

Bryson's parents divorced when he was young, but that never got in the way of a loving family environment. They learned the art of co-parenting early on—which is why when Bryson had his motorcycle accident, the family immediately put any differences aside and came together to be with him. Father, mother, and their respective spouses all stayed with Bryson at various points throughout his treatment. He was never alone, and this unwavering support was integral to Bryson's recovery.

"Our partners were fantastic," said Jenny of her husband, Ben Patten, and Merlyn's partner, Doris Hall. "They were such important supporters of us and Bryson during that very difficult time. I couldn't imagine doing it without them."

THE OPEN ROAD

Bryson began his long road to recovery right away, heading to a rehabilitation center focused on traumatic brain injuries. Upon leaving Kern Medical, he had a very low reading level and very limited mobility. A year later, he is back at



From left: Bryson's stepfather, Ben Patten; Bryson's mother, Jenny Patten; Bryson Frank; Bryson's father, Merlyn Frank; and Merlyn's partner, Doris Hall.

school, with straight As and big dreams of becoming a video game designer. He is even playing soccer again, a passion he had to put on hold during his recovery.

"I am in absolute awe of his drive and attitude," Jenny said. "I fully believe that he will be able to go back to doing everything he could do before and more, thanks to Kern Medical."

“WORKING WITH KERN MEDICAL RESTORED MY FAITH IN HUMAN BEINGS.”





SAVING TIME & SAVING LIVES

Kiley Norvell STAFF WRITER

Interventional Radiology (IR) is a sub-specialty of radiology that utilizes minimally-invasive, image-guided procedures to diagnose and treat diseases by introducing wires and catheters into a patient's arteries or veins. Simply put, a traditional radiologist looks at imaging (such as an x-ray, ultrasound, CT, or MRI) to make a diagnosis. In IR, these same types of imaging guide the interventional radiologist as they perform procedures, collect biopsies, and further treat conditions.

The Chief of Interventional Radiology is Dr. Arman Froush, who joined Kern Medical in January 2017 and has trained at elite hospitals all over the country to become an expert in his field. Using IR methods, he and his team are able to access areas that are difficult to reach

without major surgical operations, which eliminates the long recovery times and high risks that go along with surgery.

There are three main techniques used in IR: fragmentation, which breaks up the clot; embolectomy, which uses suction to dislodge and remove the clot; and thrombolysis, which is an injection of clot-breaking medicine into the clot. Usually, a combination of these is used to treat a clot.

Typically, a clot occurs in the lower legs or pelvic area, is dislodged, and then travels through the body until it lands somewhere else. In Bryson Frank's case (pg. 16), the clot lodged in his lungs, known as a pulmonary embolism (PE). Bryson had experienced a traumatic motorcycle accident and had been admitted at Kern Medical for six days with

numerous injuries, including a lacerated lung and a brain bleed. This new complication was even more life-threatening.

In a poly-trauma case, meaning there are multiple serious injuries, surgery often is not an option when it comes to treating clots. There are too many risks for the patient—primarily, that they would not survive the surgery. Bryson was not considered a viable surgical candidate.

Anticoagulants, another option for treating clots, are medications that thin the blood—but they can take up to 24 hours to work, and a PE causes strain on the heart that calls for a more immediate course of action. Furthermore, anticoagulants could increase internal bleeding in other parts of Bryson's body.

"An unnecessary delay can make the difference between life and death,"

Dr. Froush said. "Time is of the essence."

With surgery and anticoagulants ruled out, Dr. Froush was called in to consult on Bryson's case. He suggested catheter-directed thrombolysis, a procedure never before performed at Kern Medical. It is a highly selective, unique process using cutting-edge technology, and very few medical centers are able to perform the procedure.

Fortunately, Dr. Froush and his Kern Medical team were ready, and only two hours after Bryson received his PE diagnosis, they were inserting the catheter into the right side of his groin and beginning the procedure. X-ray imaging was used to direct the catheter through Bryson's veins until they reached the clot.

First, they used fragmentation to break up the clot and regain blood flow through the pulmonary arterial system, reducing the risk of cardiac arrest. Concurrent suction prevented most of the clot fragments from disseminating into the body, and the injection of clot-busting medicine into the direct vicinity of the clot dissolved any other fragments.

Bryson very easily could have lost his life had he not been at Kern Medical, where doctors and staff were able to quickly come up with a plan to treat his condition.

"With these types of delicate, complex cases, it's imperative to administer care quickly," Dr. Froush said. "It's important for the community to know that Kern Medical has the staff and equipment to handle these types of cases onsite. We're excited to offer the best, most modern treatments to our patients."



A



B

IMPROVING OUTCOMES & SAVING LIVES

The concept behind IR is to diagnose and treat patients using the least invasive techniques. This minimizes complications, mortality, and morbidity, and provides overall better outcomes with less pain and faster recovery time for the patient. Bryson's case is just one instance in which IR improves results and decreases risk.

IR is making a difference in:

- Urgent circumstances, such as active bleeds and traumatic injuries
- Cancers, wherein chemotherapy can be directly introduced to the tumor with subsequent blockage of blood supply to the tumor—by starving the tumor of its nutrients, the tumor shrinks with the use of less systemic chemotherapy
- Alternative treatments for conditions once only treated surgically, such as uterine fibroids, enlarged prostates, vertebral augmentation, vascular injuries, and elimination of arterial or venous occlusions
- Services such as vertebral augmentation, treating vascular injuries, and recanalization of acute/chronic arterial or venous occlusions, utilizing a variety of techniques such as balloon angioplasty and stents in the vessels

Left: A) Dr. Froush completed his residency at Michigan State University and his vascular and interventional radiology fellowship at Thomas Jefferson University. **Top:** B) Dr. Froush and his team perform a procedure using the latest IR techniques.

YOUR SURVIVAL GUIDE

to a Central Valley Summer:

How to Stay Active & Healthy in the Heat



The human body does a remarkable job of self-regulating and adjusting to temperatures year-round. This is called thermoregulation, and it is a fundamental tool for our survival. Here are a few tips for adjusting your lifestyle and helping your body to adjust to the increasing heat.

DO NOT BLAST THE A/C.

Research shows that spending too much time in air conditioned spaces can upset the body's ability to self-reg-

ulate to not only temperature, but also humidity. The skin is the largest organ we have. It contains billions of temperature receptors that communicate temperature change to the brain. It takes a lot of energy for your body to acclimate to a drastic temperature change—in other words, sudden changes in temperature, like stepping into the heat from an air conditioned room, make the body go into overdrive.

The Solution: Rather than spending the majority of your time in a super-cooled

space this summer, set the thermostat at a temperature that is more tolerable than the current outdoor temperature. Not only are you making it easier for your body to transition to the outdoor temperature, it is more energy efficient, too!

STAY HYDRATED.

Staying hydrated is one of the best things you can do to prepare your body for the heat, but hydration is much more than simply drinking water—dietary



Find a summer program for your kids, like A3's Sports Performance Camp for ages 8-18.

habits play an important role in hydration. The body requires a specific nutrient profile to retain water properly. Water consumption alone can make the cells in our bodies waterlogged, negatively impacting how cells function.

The Solution: A healthy diet rich in leafy greens, lean meats, and a wide variety of fruits and vegetables will satisfy nutrient requirements that contribute to proper hydration. Combining adequate water consumption with a healthy diet is a recipe for success when it comes to

staying hydrated in the summer heat.

STAY ACTIVE.

When the summer temperatures rise, we tend to relax, stay indoors, and avoid exercise. A healthy diet and regular physical activity go hand in hand, and when we become less active, we often make poor food decisions, too. The body requires exercise to stay happy and healthy.

The Solution: Do not shy away from physical activity this summer! Find a

pool, train early in the morning, do a short workout in your living room, or join a cooled gym like A3 Bakersfield. Find a summer program for your kids, too, like A3's Sports Performance Camp for ages 8-18.

Follow these tips to make sure the whole family adjusts to the heat and stays in shape this summer!

www.a3bakersfield.com
(661) 885-8889



Valley Fever Institute:

Treating the Cases No One Else Can



Erica Easton
Executive Director of
Kern Medical Foundation

As the Executive Director of the Kern Medical Foundation, I have had the opportunity to meet and interview several patients being treated for Valley Fever at Kern Medical. Each story has striking similarities. For most, Valley Fever will go undetected and cause no major issues. However, for patients like Ashley Villegas (pg. 8), Valley Fever has had devastating effects that they will be forced to battle for the rest of their lives.

Nearly every story begins with the patient being diagnosed incorrectly. In almost all cases, it takes months or years until patients are finally referred to the Valley Fever Institute at Kern Medical. By this time, they have life-threatening complications and the Valley Fever has disseminated to the brain and to other parts of the body. When dissemination occurs, these patients require lifelong treatment at Kern Medical, ranging from several times per week to every few weeks.

The Valley Fever Institute is led by Royce Johnson, MD and Arash Heidari, MD, who are pioneers in Valley Fever treatment and research and have spent their careers treating this complicated and challenging disease. There are multiple life-sustaining treatments only available at the Valley Fever Institute, including the intrathecal Amphotericin B treatment Ashley receives. Patients from all over California travel to Kern Medical regularly to receive this specialized care from our multidisciplinary team.

The Valley Fever Institute is poised to become a state-of-the-art research and treatment facility, serving the community through education, instruction, and bringing awareness in order to prevent misdiagnosis in the future. On June 8, 2018 the Senate Budget Committee voted to approve a \$3 million request for the Valley Fever Institute that will revolutionize how Valley Fever is diagnosed and treated—not only in the Central Valley, but throughout the state of California and beyond.

For more information about the Valley Fever Institute or how you can help fight Valley Fever, please visit www.ValleyFeverInstitute.com or call (661) 489-5252.

Goals of the Valley Fever Institute

- Expand current patient care areas to serve more patients. Since the most vulnerable and critically ill patients from all over California travel to Kern Medical, increasing space would allow us to care for more patients.
- Increase awareness to the general public and our local community by providing education that is distributed throughout California.
- Educate primary care physicians and other health care providers about how to diagnose and treat Valley Fever.
- Develop an Infectious Disease Fellowship at Kern Medical to create a sustainable pipeline of Valley Fever experts.
- Expand research efforts to include more clinical, diagnostic, and epidemiological studies.



70% of men in their 60's have symptoms of BPH

Introducing
UROLIFT AS A TREATMENT OPTION FOR BPH

Benign Prostatic Hyperplasia (BPH) is a common condition in which the prostate enlarges as men get older causing difficulties with urination that may impact sleep, productivity, depression and quality of life.

Treatment Options	UroLift System	Daily Medications	Heat-Based Therapies	Surgery
Minimally invasive treatment	✓	✓	✓	
Rapid relief with a low risk profile	✓			
Durable results after one treatment	✓		✓	✓
Complications				
No cutting, heating, or removal of tissue	✓	✓		
No observed risk to sexual function	✓			
No dizziness, headaches or lack of energy	✓		✓	✓
Does not cause stress urinary incontinence	✓	✓	✓	
Convenience				
Procedure can be performed in the office/clinic	✓	NA	✓	
Typically no catheter required after procedure	✓	NA		
No medications required to sustain relief	✓		✓	✓



Shahab Hillyer, MD

Dr. Hillyer completed his fellowship at the Cleveland Clinic in 2012 and subsequently worked as a Kaiser Permanente physician for 3 years before joining the Kern Medical Urology team in 2016. Dr. Hillyer is currently the only physician in Bakersfield certified to perform this procedure.

Visit Kern Medical Urology
 9300 Stockdale Highway, Suite 100 · Bakersfield, CA 93311
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