

Acting on Faith | Stand-Up Guy | Clear the Way

# USC health

2019  
ISSUE TWO

A PUBLICATION OF  
KECK MEDICINE OF USC

Keck  
Medicine  
of **USC**

BEYOND EXCEPTIONAL MEDICINE™

**USC VERDUGO  
HILLS HOSPITAL  
SPECIAL EDITION**





2

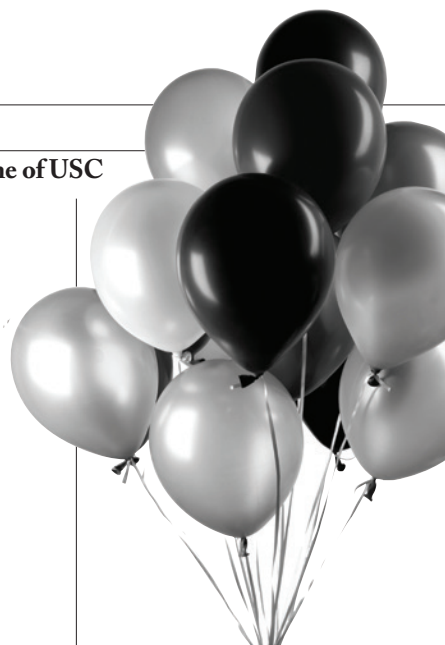
## vitals

News from around Keck Medicine of USC

2 **Like a King**

4 **The Big Question**

6 **We're Honored**



Cover Story

8

## Acting on faith

Angela K. Thomas turned to her faith, her family and the experts at Keck Medicine of USC to move beyond a breast cancer diagnosis.

## examinations

Stories from Keck Medicine's patients and physicians

### USC VERDUGO HILLS HOSPITAL *Special Section*

13

#### Dinner with Friends

USC-VHH is the hot new eatery for in-the-know seniors.

16

**Yeah,  
Baby!**



14

#### A Stroke of Luck

Dave McClure is back on his bike and back to his life after treatment for stroke.



Keck Medicine of USC is one of only two university-based medical systems in the Los Angeles area. Its internationally renowned physicians and scientists provide world-class patient care at Keck Hospital of USC, USC Norris Cancer Hospital, USC Verdugo Hills Hospital and more than 80 outpatient clinics in Los Angeles, Orange, Kern, Tulare and Ventura counties.

Keck Medical Center was ranked No. 16 on U.S. News & World Report's 2019-20 Best Hospitals Honor Roll and among the top 3 hospitals in Los Angeles and top 5 in California. The hospital also ranked in the top 4 in urology (tie); top 10 in geriatrics; top 15 in ophthalmology, cardiology & heart surgery, gastroenterology & GI surgery and nephrology; top 20 in neurology & neurosurgery; top 25 in cancer; and top 35 in pulmonology & lung surgery.

#### Editor

Amanda Busick

#### Art Direction

Julie Matzaganian

#### Associate Editor

Melissa Masatani

#### Printer

Lithographix

#### Production Coordinator

Tasha Arana

#### Photography

Ricardo Carrasco III,  
Kremer Johnson  
Photography, Don Milici

#### Contributing Writers

Lex Davis  
Hope Hamashige  
Diane Krieger  
Jenesse Miller  
Candace Pearson  
Wendy Wolfson

#### Editorial Advisers

Sara Reeve  
Jeana Rettig

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Keck Medicine of USC

Health System Marketing and Communications,  
2011 N. Soto St., SST-2830, Los Angeles, CA 90032,  
(323) 442-2830

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# 26

## labwork

A look at the latest innovative research at the Keck School of Medicine of USC and Keck Medicine

### Testing

#### Testosterone

Think twice before reaching for a supplement to boost T.

### Toxins for Pregnant Women, Children

### Augmented Reality Glasses

# 28

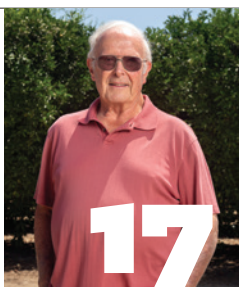
## clinical trials



# 7

## The Art of Imaging

Medicine can be beautiful.



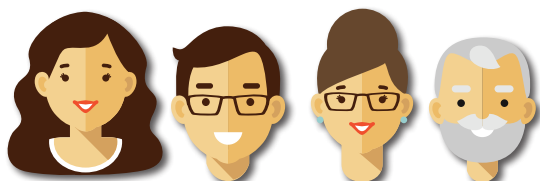
# 20

## A Stand-Up Guy

Minimally invasive surgery restores a young father's active lifestyle.

# 17

Revolutionary treatment for aortic valve disease



# 22

## Your Body At...

Getting older means more and more preventive health screenings. Here's an easy way to keep track through the years.

## consultations

## Outpatient Locations

Keck Medicine may be closer than you think.

# 24







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# Keck Medicine and LA Kings come together

PROFESSIONAL, AMATEUR AND STUDENT ATHLETES IN THE LAX AREA HAVE A NEW OPTION FOR TREATMENT AT THE TOYOTA SPORTS PERFORMANCE CENTER, WHERE **KECK MEDICINE OF USC'S** EXPERT ORTHOPAEDIC SURGEONS PARTNER WITH THE **LOS ANGELES KINGS** AND **MEYER INSTITUTE OF SPORT**.

Officials celebrated a new partnership on Sept. 4, as Keck Medicine of USC, the Los Angeles Kings and Meyer Institute of Sport held a ribbon-cutting for the Toyota Sports Performance Center in El Segundo, a new sports medicine and athletic rehabilitation center. The facility, formerly known as the Toyota Sports Center, is located at 555 N. Nash St. and will provide services to the LA Kings, youth sports teams and the surrounding communities.



Ricardo Carrasco III

"As we set out for a new vision at our facility, our goal was to create the premier sports science operation. It was imperative to support our teams here with the Kings and AEG with the best in the world," Kings Sports Chief Operating Officer Kelly Cheeseman said.

"We are thrilled to extend our services to the LA Kings, as well as members of the South Bay Community," said Jay R. Lieberman, MD, chair and professor of orthopaedic surgery at the Keck School of Medicine of USC and chief of orthopaedic surgery at Keck Medicine. "The clinic location in the Toyota Sports Performance Center offers convenient access to our highly regarded faculty, who are committed to providing the best possible care to athletes of all levels."

*Reprinted with permission from the LA Kings.*





## Helping Each Other

PATIENTS WITH HEAD AND NECK CANCER (HNC) FIND A COMMUNITY WITH A LONG-STANDING **KECK MEDICINE** SUPPORT GROUP.

HNC survivors deal not only with a life-threatening disease but altered facial features and functional problems involving speech, chewing, swallowing, vision, smell and taste. According to the American Cancer Society, a half-million Americans are survivors of oral, head and neck cancer, and 60,000 new cases are diagnosed each year.

Fourteen years ago, Keck Medicine speech pathologist Brenda Capobres Villegas founded the Head and Neck Cancer Support Group for Keck Medicine's USC Caruso Department of Otolaryngology – Head and Neck Surgery.

"I just felt it wasn't enough me seeing them for speech therapy or swallow therapy two times a week," she explains. "They really needed psycho-social support and peer support."

"The area where you swallow and eat and breathe is very small," explains Delton Shilling, a former professional singer who was diagnosed with tonsil cancer in 2003. "Everything is going through that tiny

space in your throat, and these treatments can have a major effect on your lifestyle and your social abilities."

Shilling goes to keep up with latest HNC developments. Leading Keck Medicine clinicians, including Shilling's own doctors, Uttam Sinha, MD, and Dale Rice, MD, regularly present new findings at the meetings. Survivors, their families and caregivers find a space to tell their stories, ask questions and build out their networks.

The HNC Support Group is an integral part of Shilling's self-help toolkit.

"I'm a big fan," he says. "It's always on a positive note. We don't go in all 'poor me, woe is me.' Dr. Sinha and Brenda always emphasize quality of life. That's where they've helped me, and where we can help each other."

The group meets on the first Saturday of every month, and walk-ins are welcome. To find out more, visit [ent.KeckMedicine.org](http://ent.KeckMedicine.org)

## USC-VHH ED Nurses Receive National Award

Modern-day nursing has come a long way since Florence Nightingale revolutionized the field in the 19th Century, but the basic tenet remains: provide the best care for your patients as possible.

The nurses in the Emergency Department at USC Verdugo Hills Hospital (USC-VHH) have been recognized for their exemplary care and commitment to their patients by the Emergency Nurses Association (ENA) with the 2019 Lantern Award, named in honor of Nightingale. The award recognizes emergency departments that demonstrate excellent practice and innovative performance through leadership, education, advocacy and research.

USC-VHH was one of 28 departments nationwide to be named a recipient of the award, which ENA has given since 2011. In their application, departments are encouraged to share the ways staff members have taken initiative to improve patient satisfaction, reduce patient injuries and streamline procedures.

USC-VHH is an important provider of around-the-clock emergency services to the Foothills community in Los Angeles County. The emergency nurses work by the motto, "Do everything you can to be the best part of someone's worst day," showing their strong passion for patient care by staying current with the latest in advanced training.

In 2018, USC-VHH became the first California hospital recognized by the Board of Certification for Emergency Nursing for its work toward specialty practice certification in emergency nursing practice.





# The Big Question

As our lives become busier and more complicated, it can be difficult to find time for physical fitness and preventive measures to keep from getting sick or injured. But even one small improvement in daily activities can make a big difference in the long run. Two physicians from Keck Medicine of USC, both experts in their field, weigh in on the Big Question:

***“What small thing can I do today to improve my health in the future?”***



**To make an appointment,  
call (800) USC-CARE or  
visit [KeckMedicine.org](http://KeckMedicine.org)**



After more than five years of taking care of thousands of C-suite executives and busy professionals at Keck Medicine's downtown Los Angeles private practice, I developed the following hypothesis: if you leave your physical activity and nutrition to chance, you will develop a chronic disease by age 60.

How many of us treat our automobiles better than ourselves with regular maintenance, premium fuel and fancy accessories? Fundamental laws of nature explain that the universe tends to move from ordered behavior to disorder and uncertainty. That's right: the default pathway for our health is for it to get worse — unless you actively reduce chance.

To eliminate chance in my life I have created the Life Operational Score, a tool designed to encourage and measure the benefit of exercise done per hour worked while at work. I have a whiteboard in my office on which I document exercise done, push-ups and squats, per hour, per day. Every Monday morning, I review my exercise log which affirms whether or not I contributed to my life score.

I encourage everyone not to leave our physical activity and nutrition to chance.

**Gregory Taylor, MD, MBA**  
Geriatrician  
USC Concierge Medicine



There are never enough hours in the day. From work obligations to family activities, it can be difficult if not impossible to find time to focus on ourselves. While all of us would like to be able to spend an hour each day at the gym or exercising, it is not always practical given our busy schedules. Just as saving a dollar here and there can lead to a significant savings over time, the same thing is true with physical activity. Small changes to your daily routine can add up to long term benefits to your health.

An easy thing to do is walk whenever you can. Park a little farther than you usually do. Take the stairs instead of the elevator or escalator. Stand and move instead of sitting around. Instead of spending your break on the computer or phone, take a walk around the building or outside to get some fresh air. These minor changes to your routine will help you feel better and pay dividends over time.

**Eric Tan, MD**  
Foot and Ankle Specialist  
USC Orthopaedic Surgery



## THE KECK EFFECT



Ricardo Carrasco III

## Patience and Passion

Paul Kangethe, MSN, RN, was not supposed to be working in a hospital.

The one-time computer major had taken a class to be a certified nursing assistant on the weekends as a way to make a living while attending college, but he found a passion for working with patients and a desire to do more for them. Now, with more than a decade of being a registered nurse, he spends his days doing what he loves as a nurse in Keck Hospital of USC's 5 West cardiothoracic ICU.

### What is your typical day like?

My days are very dynamic because I never actually know what I'm going to be walking into. I wear different hats, sometimes as the primary nurse, a resource nurse, a relief charge nurse or even as a nurse preceptor, training the new nurses that come through the unit. I like that I am able to help in so many different ways and I love that I still can provide direct patient care.

### What might people not know about you?

I have a master's degree in nursing administration, so I have considered doing administrative work. I participate in several projects and committees around the hospital and for the unit, always with the focus of improving processes and making things easier for my fellow nurses. But pulling myself away from direct patient care would be a challenge because I love what I do. I also was the 2017 Nurse of the Year and the 2018 Nurse Humanitarian of the Year for Keck Medical Center of USC.

### Do you have any advice for potential nurses?

Nursing takes a lot of patience, but if you are truly passionate about nursing, it's the most fulfilling job you could have. You have to be inquisitive and flexible, which I know can be challenging for a lot of newer nurses. But when you see a patient get admitted with a critical condition and two, three or four days later leave the ICU because of the help you've been able to provide, that is an incredible motivator to keep coming back to the job.

## what's the Word?

## Dyspigmentation

noun

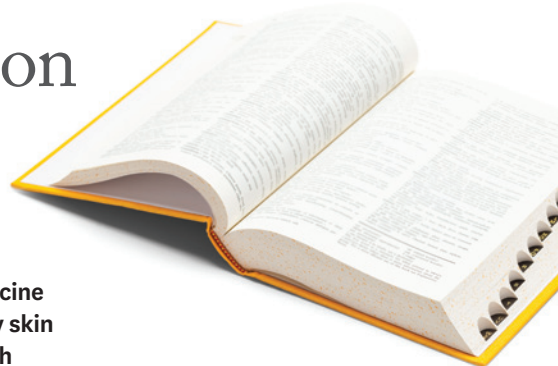
[dis'pig-men-tā'shŭn]

Any alteration in baseline skin color that causes lightening or darkening of the skin. There are three main types of dyspigmentation: hyperpigmentation, or darkening of the skin; hypopigmentation, or lightening of the skin; and depigmentation, which is the complete loss of skin color.

"After trauma to the skin or a rash, many people, particularly those with darker skin color may develop dyspigmentation," says Nada Elbuluk, MD, a dermatologist who specializes in

treating skin of color at Keck Medicine of USC. "There are, however, many skin diseases that also can present with dyspigmentation. If the skin discoloration does not resolve on its own, it is appropriate to see a board-certified dermatologist for a diagnostic evaluation and discussion of treatment options."

If you are concerned about changes in the pigmentation of your skin, learn more or schedule an appointment by calling (800) USC-CARE (800-872-2273) or visiting [dermatology.KeckMedicine.org](http://dermatology.KeckMedicine.org).





# We're Honored



Keck Medical Center of USC, which includes Keck Hospital of USC and USC Norris Cancer Hospital, was ranked No. 16 on the U.S. News & World Report 2019-20 Best Hospitals Honor Roll, hospital officials announced July 30. The academic medical center, which recently celebrated its 10-year anniversary, also was ranked among the top 5 hospitals in California and top 3 hospitals in Los Angeles.

“Keck Medical Center achieving Honor Roll recognition after only a decade of operation illustrates the health system’s remarkable growth and steadfast commitment to providing world-class, research-driven academic medicine,” said Tom Jackiewicz, MPH, CEO of Keck Medicine of USC. “We are extremely proud to have earned this distinction among a list of storied medical institutions; however, it’s

the trust our patients place in us each and every day that allows us to succeed.”

The Best Hospitals rankings and ratings are released annually to assist patients and their doctors in making informed decisions about where to receive care for life-threatening conditions or common elective procedures. U.S. News evaluated more than 4,500 medical centers nationwide across 16 specialty areas and nine procedures or conditions. Only 165 hospitals (approximately 3%) were ranked in at least one specialty. Keck Medical Center and others named on the Honor Roll posted high scores across many of these areas of care.

At No. 4 (tie), urology was the medical center’s highest-ranked specialty, making it the highest-ranked urology specialty in Southern California.

Eight additional specialties — geriatrics (No. 6), ophthalmology (No. 11), cardiology & heart surgery (No. 11), gastroenterology & GI surgery (No. 13), nephrology (No. 13), neurology & neurosurgery (No. 16), cancer (No. 21, tie) and pulmonology & lung surgery (No. 33) — also placed in the nation’s top 35, and orthopedics was rated as High Performing. Keck Medical Center also was rated High Performing (the highest rating possible) in eight of nine evaluated procedures and conditions: heart bypass surgery, aortic valve repair, heart failure, hip replacements, knee replacements, lung cancer surgery, colon cancer surgery and abdominal aortic aneurysm repair.

“The medical center’s impressive specialty rankings are a result of highly skilled physicians, pioneering researchers and dedicated staff committed to providing the best possible experience for some of the most complex patient cases in the country,” Jackiewicz said.

Keck Medical Center implements best practices in numerous aspects of care, from diagnosis to treatment to overall care delivery. In the past year, the health system updated its surgical practices to reduce opioid prescriptions significantly while improving recovery and outcomes. Keck Hospital also received Nurse Magnet recognition from the American Nurses Credentialing Center, signifying excellence in outcomes and patient care.

The 2019–20 Best Hospitals rankings are available at <http://health.usnews.com/best-hospitals>.

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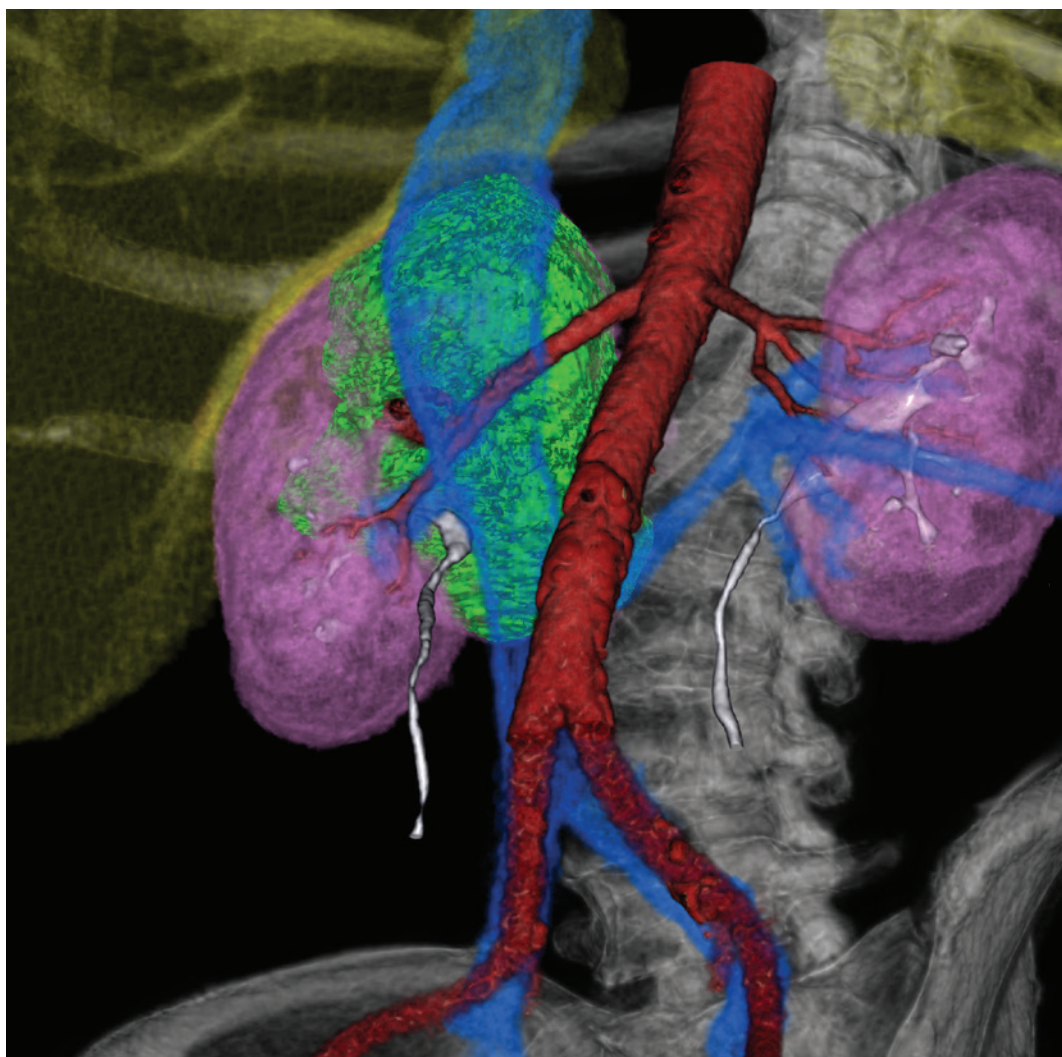


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## The **Art** of Imaging

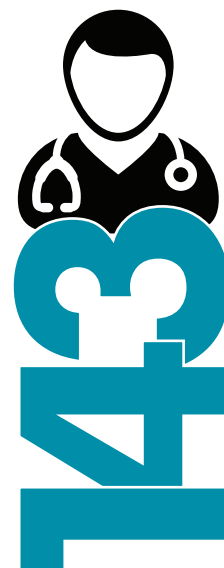


*This is a 3D rendering of a large renal tumor (bright green) arising from the right kidney. This type of imaging visualization is used not only for discussing the surgery with the patients and their families but also for surgical planning. The relationship of the tumor with the kidney, measurements of their volumes and detailed visualization of the vasculature, allow precise planning of the surgical procedure by urologists.*

*(3D rendering by Darryl Hwang, PhD, Director of the 4D Quantitative Imaging Center and Vinay Duddalwar, MD, FRCR, Medical Director of Imaging Services for USC Norris Comprehensive Cancer Center.)*

MANY AREAS OF MEDICINE, FROM RESEARCH TO CLINICAL DIAGNOSIS AND TREATMENT, USE ADVANCED TECHNOLOGY TO SEE THINGS THAT THE HUMAN EYE CAN'T — WHETHER IT'S A PATIENT'S INTERNAL ORGANS OR BONES, OR SOMETHING MICROSCOPIC. **MANY TIMES, THESE IMAGES CAN BE BEAUTIFUL AS WELL AS INFORMATIVE.**

## Top Docs



This year 143 physicians associated with Keck Medicine of USC were included in Pasadena Magazine's September 2019 roster of "Top Doctors." The doctors represent 38 different specialties.

"Top Doctors" is an annual listing of practicing physicians in Pasadena and surrounding cities within San Gabriel Valley. Nominated and voted on by their peers, these doctors are considered some of the best in their profession.



# Acting on faith

**Angela K. Thomas** turned to her faith, her family and the experts at Keck Medicine of USC to move beyond a breast cancer diagnosis.

BY HOPE HAMASHIGE

**W**hile climbing into bed one night in 2016,

Thomas felt something unexpected. Though she knew that fibrocystic breasts — a benign condition she had — feel lumpy to the touch, this time was different. Her right breast had a lump.

Only 32 at the time, Thomas had no reason to think anything would be wrong. She was an otherwise healthy young woman enjoying a busy life in her adopted home of Los Angeles. The aspiring actor was racking up credits on TV shows and in theater, worked in hospitality and was very involved in her church. And she had no changes in her skin on her breasts, pain or discharges from her nipples, which can be early warning signs of breast cancer.

Yet, Thomas called her doctor the morning after she felt the lump and her doctor ordered an ultrasound. In the days that followed, she also had a mammogram and biopsies on both breasts. Within a week, she received the news that she had cancer in both of her breasts.

Though nearly 270,000 women will be diagnosed with breast cancer this year\*, most are older women, with the median age of diagnosis being 62. And while it is rare in younger women, with fewer than 5% of new cases occurring in women under 40, breast cancer can strike at any age.

In the days before she got her results, Thomas says she prayed more often than normal and, through prayer, she came to believe two things.

"I knew it was going to be cancer and I knew I was going to fight it," she says.

## Preparing for battle

Her doctor referred her to the USC Norris Comprehensive Cancer Center, where she saw Maria Nelson, MD, a surgical breast oncologist at Keck Medicine of USC, to operate on her and guide her through treatment. Nelson, who also is assistant professor of clinical surgery at the Keck School of Medicine of USC, explained to Thomas that she had early stage breast cancer — ductal carcinoma in situ (DCIS) in her left breast and DCIS and invasive ductal carcinoma in her right.

Surgery is the mainstay for early stage breast cancer, but most patients also typically need some combination of radiation, chemotherapy and hormone therapy, depending on factors such as whether the cancer has spread and what type of surgery is performed. As is the case with most patients, the first big decision Thomas had to make was whether to have a lumpectomy or mastectomy.

Nelson notes that research has demonstrated that treating early stage breast cancer with mastectomies versus lumpectomies plus radiation results in equivalent survival.

"There was really nothing to think about," says Thomas, who chose to have a double mastectomy. "I have never been so sure about a decision as I was with that and it took me no time to make it."

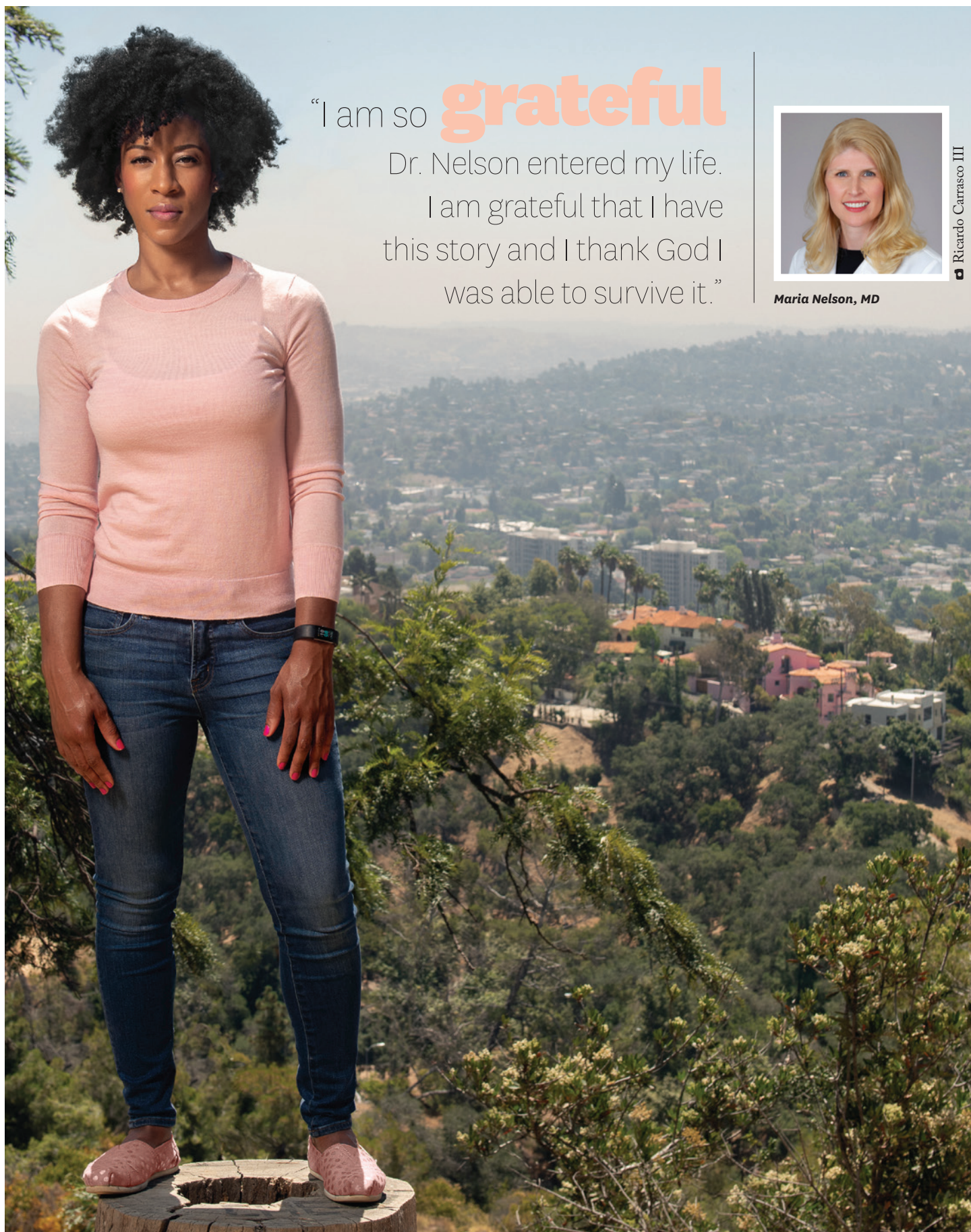
Thomas felt her choice would reduce her anxiety about the possibility of recurrence, which Nelson says is a fear that tends to be heightened among younger patients. While recurrence is a concern most patients have, younger people have more years ahead of them — which also means more time for the cancer to stage a return, Nelson says.

*\*According to the Susan G. Komen Breast Cancer Foundation*

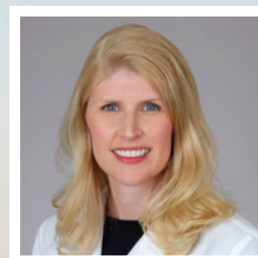








"I am so **grateful**  
Dr. Nelson entered my life.  
I am grateful that I have  
this story and I thank God I  
was able to survive it."



**Maria Nelson, MD**

**Ricardo Carrasco III**



Though fear of recurrence is a genuine concern for all patients, Nelson also points out that advances in breast cancer research have had a positive effect on survival rates. Genetic tests and genomic assessment have shed light on some patients' ongoing risk profile and negates the need for chemotherapy in others. New drugs are targeting certain cancers and preventing the recurrence of others. Doctors better understand which types of chemotherapy works best on which cancer type. All of this work and the advances in understanding breast cancer have led to improved survival rates.

## Staying positive

During the course of her treatment, which consisted of a mastectomy, reconstruction surgery and hormone therapy, Thomas received several pieces of good news about her prognosis.

The first came on the same day as her surgery in November of 2016: Her cancer had not spread to her lymph nodes. Genetic testing also showed that she does not have the BRCA genes, which raise the risk of developing breast and several other types of cancer. A genomic test showed that she would not need chemotherapy and determined that she has a relatively low chance of recurrence.

In spite of the good news, and her relatively straightforward treatment, Thomas says getting through it all has been challenging both emotionally and physically. Her close-knit family helped her stay strong and positive throughout treatment and recovery, both in-person and by video.

She had to make some difficult choices along the way, including deciding to freeze her eggs. She has ongoing struggles with pain in her chest and has had to learn how to manage it with physical therapy. She has made serious lifestyle changes, including changing her diet and getting more serious about working out, to improve her chances of remaining healthy. And she continues to see Nelson for follow-up appointments to make sure there are no subtle signs of a recurrence.

In spite of the challenges, she says that she has a lot to be grateful for.

"I am aware that everyone's story doesn't end as well as mine," she says. "I am so grateful Dr. Nelson entered my life. I am grateful that I have this story and I thank God I was able to survive it."

**To learn more or schedule an appointment, call (800) USC-CARE or visit [keckmedicine.org/grateful](http://keckmedicine.org/grateful)**

## All together now

The breast cancer specialists of USC Norris Comprehensive Cancer Center know that after receiving a breast cancer diagnosis, patients have a lot of questions in the initial stages of treatment about the disease and their recovery. One way to help? The multidisciplinary USC Breast Center.

New patients have the opportunity to meet with all of their doctors in a single day, which provides the opportunity for patients to ask questions of and share their concerns with the surgeons, oncologists and radiologists — all of whom specialize in treating breast cancer — overseeing their care.

Before meeting the patient, the breast surgeons, medical oncologists, plastic surgeons, radiologists and psycho-oncologists create a care plan that meets the specific needs of each patient. Depending on the type of breast cancer and its severity, the team consists of three to five doctors.

This approach offers many benefits, explains Maria Nelson, MD, assistant professor of clinical surgery at the Keck School of Medicine of USC. Traditionally, patients see each doctor separately, but this multidisciplinary clinic eliminates the need for scheduling multiple appointments. Patients also get the big picture of their personalized plan and why the team believes this plan addresses their specific cancer in the most effective way.

Perhaps most importantly, Nelson says, it also helps deal with the anxiety that comes with a cancer diagnosis.

"When the patient understands how the disease works and what the treatments are and how it all works together, they feel more comfortable and, hopefully, a little less anxious," Nelson says. "They can see for themselves that all the doctors are on the same page and communicating and working together."

Ancillary service providers, including genetics counselors, dietitians, physical therapists, occupational therapists and social workers also meet with patients at the multidisciplinary breast clinic, rounding out the treatment team.

Each patient receives a book that contains invaluable information including imaging studies and pathology reports, a glossary of breast cancer terms, and pages of notes from each of their visits explaining each treatment stage and the next steps in their care.

"It can be overwhelming and this gives them a guide that they can refer to throughout their treatment," Nelson says.





## THE KECK EFFECT

# Comprehensive care for total breast health.

Experts at the USC Breast Center deliver exceptional care for any breast concern. Our renowned team of physicians are from the **USC Norris Comprehensive Cancer Center**, a top cancer care provider in Southern California. Our breast physicians provide the most advanced therapies available, and we make sure you can see a team of different subspecialists all in a single visit to our unique multidisciplinary clinic. We offer state-of-the-art breast cancer screening as well as the latest medical and surgical treatments — so you can receive the best possible care, tailored just for you.

**USC Breast Center**

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**USC** Norris Comprehensive  
Cancer Center

Keck Medicine of **USC**





**Left: Philip and Charlene Downs enjoy a Thursday night dinner at USC-VHH.**

**Right: Barbara Lewis shares a light moment with friends.**

Don Milici

# Dinner With Friends

BY MARY DACUMA

When contemplating a night out with friends, most people would hope to avoid going to a hospital. But for people over 65 in the Glendale, La Cañada Flintridge and Foothills communities, Hillside Café at USC Verdugo Hills Hospital (USC-VHH) has become the new hot dinner spot.

**T**he trend started when the hospital began offering a “senior dinner” discount in July, which provided anyone over the age of 65 with 30% off all prepared meals at the café between 5-8 p.m. This provides older adults with an ideal option for anyone who may not have the time or ability to make dinner each night. Hillside Café also offers multiple mindful eating options, specifically designed by a registered dietitian to have lower sodium, fewer calories, less fat, or more fiber, for example.

“The mindful eating options make it easy for our customers to make healthy choices without sacrificing satisfaction or settling for just the salad bar,” says Stephanie Wood, RD, clinical nutrition manager at USC-VHH. “Furthermore, people’s appetites become naturally reduced with age, so the mindful options help ensure that our older customers get their necessary daily nutrition even though they are eating less.”

The discounted dinners initially attracted older adults who were patients, former patients or volunteers at the hospital. As these customers started coming more frequently and inviting family and friends, Hillside Café became a comfortable place where seniors from the community could socialize with others their age.

“It is so important for all people to find ways to reach out and be part of the community and socialize with others,” says Philip Downs, an active participant in the USC-VHH Cardiac Rehab Center and a frequent patron of the café. “While we are all unique, we are much more alike than we are different.”

Downs first came to the café with his wife and fellow participants from the Cardiac Rehab Center. When his dinner companions expressed how much it meant to them to spend time with friends and just get out of the house for awhile, he realized the value of these group interactions. Soon, Downs and his friends invited spouses and other friends. Other older adults in the community who caught wind of the discounted dinners started frequenting the Hillside Café as well.

The crowds during the senior dinner hours continue to grow, as does Downs’ supper club. The group meets informally on Thursday evenings to enjoy not only a mindfully planned dinner, but more importantly, the company of friends.

“These dinners are enhancing the quality of life by giving us a means to socialize,” Downs says. “And it’s a good meal, to boot.”



# A Stroke of luck

**David McClure** didn't know what was wrong the morning that his left arm and leg suddenly wouldn't move while parking his car. Unable to get out of his car, he reached for his phone and called a friend. "I said to him, 'I need you, buddy.'"

BY HOPE HAMASHIGE

**T**hough McClure didn't know what was happening, his friend recognized the one-sided paralysis for what it was — a telltale sign of stroke — and immediately dialed 911.

Proximity was on McClure's side that morning. His friend lives nearby and was at his side in minutes. He was yards from a fire station, so paramedics were tending to him quickly. Also working in his favor that day was the fact that he was taken to USC Verdugo Hills Hospital, a primary stroke center that is part of Keck Medicine of USC, which boasts a specialized stroke team that provides the most advanced and comprehensive care possible.

The instant that stroke hits, blocking the flow of blood to the brain, the clock starts ticking. The longer the brain is deprived of blood, which carries oxygen to the brain, the more brain cells die, increasing the likelihood the person will suffer a lifelong disability.

According to the Centers for Disease Control and Prevention, someone in the United States has a stroke every 40 seconds and someone dies from one every four minutes. It is the nation's fifth leading cause of death and a leading cause of serious, long-term disability.

Speed and efficiency, while maintaining the highest standards of care, are the guiding principles of the protocols developed by the stroke specialists at Keck Medicine.

USC-VHH performs rapid, thorough lab tests and imaging studies to determine the type of stroke a patient is having, where the blockage is located and whether they can stay at USC-VHH or need to be transferred to Keck Hospital of USC for more serious intervention.

USC-VHH and Keck Hospital physicians evaluate stroke patients collaboratively, notes Sebina Bulic, MD, assistant professor of clinical neurology at the Keck School of Medicine of USC and director of stroke neurology at Keck Medicine. "We provide support every step through evaluation and

help decide if they need to be transferred," she says, adding that Keck Medicine's team has access to the images taken at USC-VHH because they are part of the same system.

McClure's CAT scan showed that he had an ischemic stroke, the most common type, from a blockage in his carotid artery, which caused a blockage in an artery in the brain. He received a clot-busting medication at USC-VHH called tissue plasminogen activator, or tPA, but because the blockage was in a large artery, the team concluded he was going to need surgery at Keck Hospital.

Matthew Tenser, MD, assistant professor of clinical neurological surgery at the Keck School, notes that the tPA breaks up clots in about 45% of cases. "Studies show that the larger the vessel, the less likely it will work," he says.

"I enjoy **life**  
and they gave it  
back to me."

Keck Medicine has advanced imaging capability, a dedicated neurointensive care unit for stroke patients and can treat complex cases, including those that require open surgery. Most of the physicians on the team are board certified in stroke and neurocritical care.

Tenser first performed angioplasty and stenting on McClure — using a tiny balloon to widen the area in his carotid artery and a stent to prop it open. He then performed a thrombectomy, which involves threading a catheter through an artery in the groin to access the blockage in the brain. A small device on the catheter pulled the clot out of the brain. According to McClure, he was able to move his left side again even before Tenser had completed the procedure.

McClure spent only 24 hours in the neuro-ICU and was released from the hospital two days after his stroke. He is one of the fortunate ones because he did not need any rehabilitation and has no deficits from his stroke.

Only a few weeks later, McClure was on a fishing trip, reeling in 100-pound halibut off the coast of Alaska. He also is back on his motorcycle and living life to its fullest. McClure realizes that a number of things worked in his favor that day, starting with the fact that his buddy answered the phone when he called. Mostly, though, he gives credit to the team of doctors and nurses who treated him.

"I had fantastic medical attention starting at USC-VHH," he says, crediting their quick work to get him to Keck Hospital. "Dr. Bulic and Dr. Tenser and all the nurses were absolutely phenomenal. I enjoy life and they gave it back to me."

**To learn more or schedule an appointment, call (818) 790-7100 or visit [uscvh.org/strokeofluck](http://uscvh.org/strokeofluck)**



**Sebina Bulic, MD**

Ricardo Carrasco III



**Matthew Tenser, MD**

Ricardo Carrasco III



# Yeah, Baby!

Pregnant women and new parents are at a very special, exciting time in their lives. But it can also present new challenges, anxiety and the need to learn new skills. To help new parents prepare for and care for their baby, USC Verdugo Hills Hospital (USC-VHH) offers a family education program covering a wide array of topics designed to help families welcome a new arrival.

Led by experts and certified educators, the workshops also cover key health and safety topics that are important to new parents and those who already have one or more children. All stages of pregnancy, delivery and infancy are addressed in the program, from the first trimester through delivery and beyond.

To learn more and register for classes, visit [uscvh.org/maternity-classes](http://uscvh.org/maternity-classes)



## **Beginnings/ Early Pregnancy Class**

Teaches what to expect during pregnancy and much more, including a tour of the delivery and postpartum areas of USC-VHH.



## **Maternity Tours**

Expectant parents tour the USC-VHH facilities with the expert caregivers who will deliver their baby.



## **Childbirth Preparation (Lamaze) Class**

A weekly, five-week class to prepare you for labor and birth.



## **Big Kids and Babies Siblings Class**

Shares everything a young (soon to be older!) sibling needs to know about babies and their needs and limitations.



## **Infant Care Workshop**

Trains new parents in skills like diapering, bathing, swaddling and more, using life-like infant dolls.



## **Breastfeeding Support Group**

Breastfeeding can be challenging and is different for everyone. New mothers can find emotional support and shared experiences in this group.



## **Infant CPR and Safety Training**

Teaches life-saving techniques to new or expectant parents, grandparents, babysitters and anyone who deals with infants from birth to one year.



## **New Mothers Forum**

A support group designed to help mothers ease through the adjustments of having a new baby.



# clear the Way

Specialists at Keck Medicine's USC CardioVascular Thoracic Institute help revolutionize treatment for aortic valve disease in a series of life-changing clinical trials.

BY CANDACE PEARSON

**A**s Bill Walston tended the oranges and grapes growing on his Visalia ranch or hiked across the Central Valley countryside, he often felt a worrying shortness of breath and fatigue. The retired school superintendent thought it was simply a sign of aging. He kept his symptoms to himself, not even telling his wife, Judy.

But in 2014, Walston, then 76, had a mild heart attack, and doctors opened a blocked artery with a stent. Two years later, another attack required a second stent. The interventions helped, but not enough.

The problem: aortic stenosis, a narrowing of the aortic valve opening. When the valve's flaps or leaflets become stiff and thick from calcium deposits, they have difficulty opening and closing. That forces the heart



"I was **lucky**  
there was a procedure that could be done so easily."

to work harder to pump blood to the rest of the body. Left untreated, aortic stenosis can lead to fatal heart failure.

By April 2019, Walston needed a new valve. His cardiologist sent him to a place where a team of interventional cardiologists and cardiac surgeons are pushing the boundaries of heart valve repair and replacement — the CardioVascular Thoracic Institute (CVTI) at Keck Medicine of USC.

The Walstons arrived at Keck Medicine at a fortuitous moment.

Traditionally, treatment for aortic stenosis has been open heart surgery, with cardiac surgeons having to cut the chest bone and open the rib cage to replace the affected valve. Over the past decade, Keck Medicine cardiovascular specialists have helped to perfect a game-changing minimally invasive procedure called Transcatheter Aortic Valve Replacement (TAVR).

"We've been on the cutting edge of developing this therapy," says Ray Matthews, MD, professor of clinical medicine at the Keck School of Medicine of USC, and director of the catheterization lab at Keck Medicine.

## Putting It to the Test

Starting in 2011, TAVR has been tested in a series of multi-institutional trials for a full range of patients with aortic disease — initially high-risk patients not recommended for surgery, then patients at intermediate surgical risk and, finally, patients for whom surgery is considered low risk.

In the TAVR procedure, doctors don't need to open the chest. Instead, they make an extremely small incision in the groin.

Once at its destination, the catheter is positioned to push the new valve (made from bovine or porcine pericardial tissue) into place over the damaged old one, resulting in a kind of valve-within-a-valve.

"We are changing what surgery looks like for these patients," Matthews says.

Although 81, an age when surgery can be chancy for many patients, Walston, a former soccer coach and Boy Scout leader, fell into the low-risk group because of his active lifestyle. He was happy to join the clinical trial. "I was very lucky there was a procedure that could be done so easily," he says.

What helped make it even easier for Walston was the model of care at Keck Medicine. The Centers for Medicare & Medicaid Services require that centers performing the TAVR studies have both an interventional cardiologist and cardiac surgeon involved. That spirit of interdisciplinary collaboration was already in place at Keck Medicine.

Within the CVTI, cardiologists no longer hand off cases to cardiac surgeons. "We review the data together and discuss the treatment options, then we meet with the patient together in our valve clinic," says cardiac surgeon Mark J. Cunningham, MD, director of structural heart surgery and surgical director of the heart transplant program.

The entire cardiac team was "amazingly warm, so friendly," Judy Walston remembers. Equally important, "you're not a number," she adds. The attention is individual, as are the solutions.

On Walston's procedure day, Matthews and Cunningham entered a hybrid operating room, designed by Cunningham as a combination surgical suite and catheterization lab. Supporting them was both a surgical team and a catheterization

team to ensure backup was in place if Walston required surgery.

"We take that extra step as part of Keck Medicine's commitment to safety for the patient," says Cunningham, associate professor of clinical surgery at the Keck School.

Bill's procedure, in which the team guided a specialized valve into place, went without complications. Most TAVR procedures take about an hour and a half, compared with four hours for surgical valve replacement.

Findings from the low-risk TAVR trial, in which Walston participated, echoed those of earlier studies, which showed that TAVR has an excellent safety profile and performed as well, or better, than surgical replacement. Results included shorter hospital stays, quicker recovery times and improved quality-of-life scores.

## Building the Data

In August 2019, the U.S. Food and Drug Administration approved the use of TAVR in low-risk patients, extending it to all levels of patients. TAVR essentially has become the "gold-standard" treatment, taking the place once occupied by surgery.

However, there still will be patients for whom TAVR is not the first-line choice, including those with bicuspid valves (two leaflets instead of the normal three), as well as those who can't tolerate blood thinners or have active heart infections.

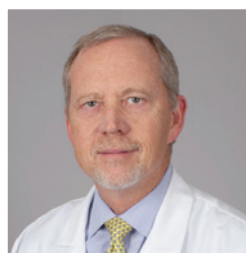
What's needed next is data on TAVR's long-term durability and treatment outcomes. Patients like Walston are enrolled in registries that will follow them over the next decade. "We must be cautious," Matthews says, "at the same time we want to move this paradigm forward. That's what progress is."



Kremer Johnson Photography



Mark J. Cunningham, MD



Ray Matthews, MD

Ricardo Carrasco III

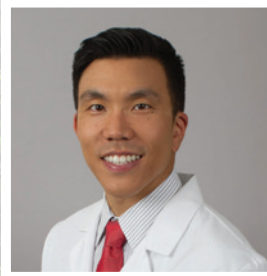
Building on its experience, USC CVTI is currently enrolling patients in two clinical trials studying transcatheter mitral valve replacement.

For Bill and Judy Walston, progress has opened up new adventures. Home after two days in Keck Hospital of USC, he noticed how effortless it was to get a full breath and walk farther. "Hiking a trail has become a lot easier," he says. "It's so nice not to get tired."

Both avid travelers, they had written off a planned trip to Machu Picchu, the Incan citadel in Peru, because it seemed too rigorous. Now that trip is back on, Walston adds, "one more thing to check off our bucket list."

**To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/cleartheway](http://KeckMedicine.org/cleartheway)**





Raymond Hah, MD

Ricardo Carrasco III

Kremer Johnson Photography



Years of charging basketball hoops, bombing down ski slopes and playing many other sports left **Chris Hill** with more than his share of wounds. He has broken each of his limbs, had one of his shoulders repaired and has had countless scrapes, sore muscles and minor injuries.

“It was never very easy on my body,” he says, noting that he has endured a lot of pain in his lifetime, but nothing as debilitating as the pain he experienced in the spring of 2018.

At its worst, the nerve pain in Hill’s back and legs became so intense that he could barely walk from his car to his office, a distance he estimates at a couple hundred feet. Before he could start working, he was often forced to lie on the floor in the fetal position, which, he discovered through trial and error, helped his pain subside.

An X-ray at the USC Spine Center revealed the source of his problem: Hill suffered from a condition called

already devoted less time to bone-crushing sports, but he and his family liked to spend as much time as possible outdoors.

By the time Hill was referred to Hah, kicking soccer balls in the park and short hikes were out of the question. Even picking up his children, the youngest of whom was just a few months old, had become a struggle.

“By the time he came to me, Chris had gone through a pretty rapid decline in his function,” Hah says. Patients with spondylolisthesis may improve with more conservative measures, such as physical therapy or injections, but those treatments did not provide any sustained relief for

so, Hah uses minimally invasive techniques to access the spine from the back.

Employing minimally invasive techniques, Hah notes, has improved the experience for patients in part because it causes less damage to the back muscles. “Patients used to be laid up a long time after a fusion,” he says. This technique allows them to spend less time in the hospital, experience less postoperative pain and reduces infection rates.

Hill was on his feet a few hours after surgery, and a day later he went home to the San Fernando Valley with orders to walk every day, but to avoid bending, twisting or lifting. Within a week, Hill was walking

“I can run a mile almost as fast as I used to...I am **me again**.”

spondylolisthesis, which results from a stress fracture in the lumbar region of the spine. This type of fracture, called spondylolysis, is common among young athletes, especially those whose chosen sport involves frequent bending of the lower back.

According to Raymond Hah, MD, assistant professor of clinical orthopaedic surgery at the Keck School of Medicine of USC and a spine surgeon at Keck Medicine of USC, these fractures typically heal and never lead to any further problems. In some people, however, the injured vertebra later slips on the vertebra below it, resulting in spondylolisthesis. Depending on the severity of the slip, it can cause significant pain, stiffness and difficulty walking or standing.

In practical terms, Hill describes the pain emanating from his lower back as a complete quality-of-life killer. At 36, with two young daughters and a full-time job, he

Hill. Hah ultimately recommended surgery because of the amount of pain Hill was experiencing, combined with his loss of function. Hah added that patients with severe spondylolisthesis tend to have excellent outcomes with surgery.

Hill had what is called an anterior and posterior lumbar fusion in September of 2018. This operation is performed by making incisions on both the front and back of the patient in order to fuse the spine on both sides.

The procedure begins on the front, removing the disc and inserting a cage filled with bone graft that realigns the spine, provides support and promotes the spine fusion. Once complete, Hah performed a decompression of the nerves and inserted screws and rods into the vertebrae, along with more bone graft, to further stabilize the spine and promote more bone growth. Though not all surgeons are trained to do

a mile or two every day without pain. Six weeks later, when Hah lifted the ban on bending and lifting things, he raced home to pick up his youngest daughter for the first time in months.

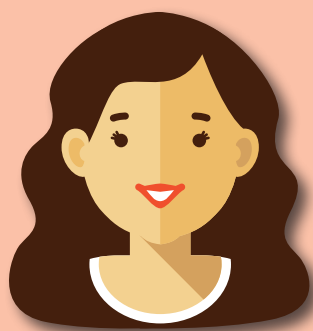
“That was a waterworks moment,” he recalls. At that moment, he says, he knew he was on the path to returning to what he had been — an active dad who hikes and skis and spends quality outdoor time with his family.

A year after his surgery, he is just that. “I can run a mile almost as fast as I used to. I can go to one of these crazy workout classes for an hour and keep up. I am me again.”

**To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/standup](https://www.KeckMedicine.org/standup)**

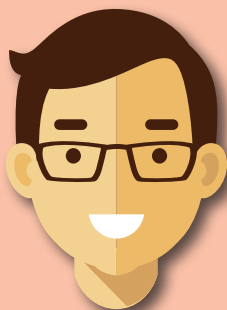


# Keep Your Body in Check



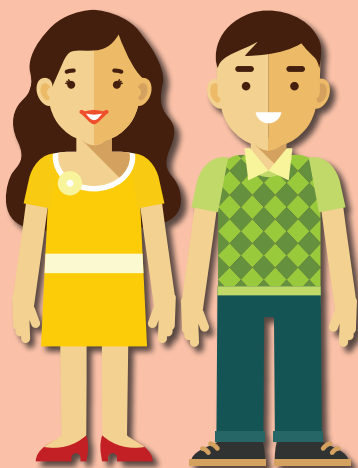
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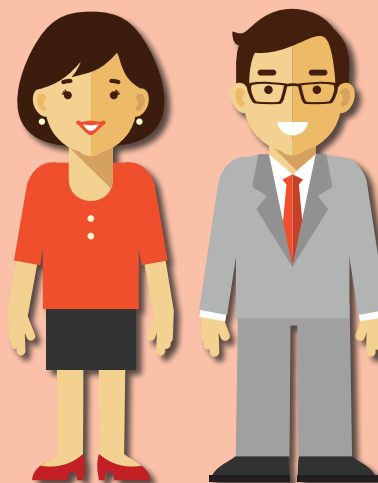
40

Preventive care is an important part of staying healthy. Here's what screenings are recommended in your 40s.

- Alcohol misuse
- Blood pressure
- Breast cancer
- Cervical cancer
- Cholesterol
- Colorectal cancer
- Depression
- Diabetes
- HIV
- Obesity
- Tobacco use
- Vision

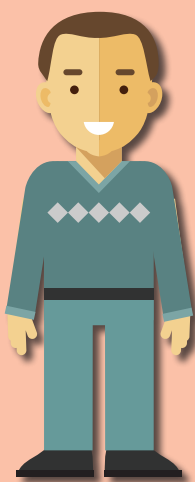
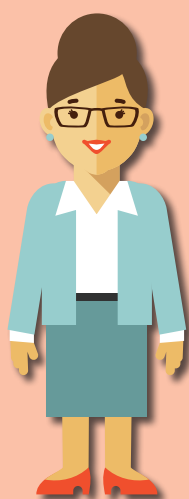
50

Preventive health care in your 50s is similar to your 40s, with two more screenings thrown into the mix: lung and prostate cancer. Here's what screenings are recommended in your sixth decade of life.



- Alcohol misuse
- Blood pressure
- Breast cancer
- Cervical cancer
- Cholesterol
- Colorectal cancer
- Depression
- Diabetes
- HIV
- Lung cancer
- Obesity
- Prostate cancer
- Tobacco use
- Vision

Do you know your blood pressure? What about your risk for various cancers? Keeping track of these preventive health screenings can get more complicated as you get older, which is why it is important to schedule regular checkups with your primary care physician. Read on to learn about the health screenings you need for your age group and bring them up with your doctor at your next visit.



- Abdominal aortic aneurysm
- Alcohol misuse
- Blood pressure
- Breast cancer
- Cervical cancer
- Cholesterol
- Colorectal cancer
- Diabetes
- Depression
- HIV
- Lung cancer
- Obesity
- Osteoporosis
- Prostate cancer
- Tobacco use
- Vision

60

By now you're used to blood pressure and cholesterol checks, but there are a few more preventive health screenings that are new to this decade. Here's what screenings are recommended in your 60s.

70

The number of candles on your birthday cake may be increasing, but the number of preventive health screenings you need in your 70s won't change much from your 60s. Here's what's recommended in your 70s.



- Abdominal aortic aneurysm
- Alcohol misuse
- Blood pressure
- Breast cancer
- Cholesterol
- Colorectal cancer
- Depression
- Diabetes
- HIV
- Lung cancer
- Obesity
- Osteoporosis
- Prostate cancer
- Tobacco use
- Vision



## OUTPATIENT LOCATIONS

# We Are Where You Are

Get to know  
some of Keck  
Medicine of  
USC's many  
locations  
across  
Southern  
California



### Los Angeles – Koreatown

500 South Virgil Ave.  
Los Angeles, CA  
90020

At Keck Medicine of USC – Koreatown, expert Korean-speaking physicians provide medical and radiation oncology care for a wide variety of cancers and blood diseases.

Having an expert cancer team close to home saves time and effort. The physicians are members of the USC Norris Comprehensive Cancer Center, one of the eight original National Cancer Institute-designated Comprehensive Cancer Centers in the United States. USC Norris has revolutionized cancer research, treatment and prevention for more than 40 years.

Keck Medicine – Koreatown provides easy access to the specialized care and advanced treatments only available at an academic medical center. Our physicians provide personalized care, support and cultural awareness with convenient access for the Mid-Wilshire community.

### USC Healthcare Center – Huntington Beach

19582 Beach Blvd.,  
Suites 115, 206  
Huntington Beach, CA  
92648

Keck Medicine offers expert oncologic care in Orange County, at a multispecialty location in Huntington Beach. This location specializes in the diagnosis and treatment of a wide range of blood disorders and cancers. Patients have access to leading services from physicians who are members of the USC Norris Comprehensive Cancer Center, in a welcoming and supportive environment that meets the needs of every individual. Services include diagnostic testing, comprehensive treatment of blood disorders, comprehensive cancer therapy, an in-office laboratory, on-site pharmacy and infusion center for chemotherapy, hydration and supportive medications. Neurologic services are also available, with a focus on treatment for headaches.

### USC Healthcare Center – La Cañada

1751 Foothill Blvd.,  
Suite 2  
La Cañada Flintridge, CA  
91011

Keck Medicine provides a broad range of health services that affect patients' daily lives in La Cañada Flintridge. Patients can see expert physicians in primary care, rheumatology and dermatology. Onsite X-ray services are available.

The location also offers neurosurgical consultations for brain and spine conditions.

Dermatology services include cosmetic injectables such as Botox and pediatric dermatology treatment.







# Testing Testosterone

Men who want to improve their libido or build muscles often turn to testosterone supplements, also known as T boosters. Keck Medicine of USC's Mary Samplaski, MD, says supplements aren't really the answer.



**Mary Samplaski, MD**

T boosters are frequently used as an alternative to traditional testosterone replacement therapy. But these supplements may not have ingredients to support their claims, according to Samplaski, who is a male infertility specialist and assistant professor of clinical urology at the Keck School of Medicine of USC.

"Many supplements on the market merely contain vitamins and minerals, and don't do anything to improve testosterone," Samplaski says. "Often, people can be vulnerable to the marketing component of these products, making it difficult to tease out what is myth and what is reality."

As the primary male sex hormone, testosterone is the reason why men produce sperm, have Adam's apples,

and develop more "masculine" features like bulging muscles and a deeper voice. After age 40, most men experience a gradual decline in testosterone, sometimes causing these features to diminish or new symptoms to occur, like erectile dysfunction. In an attempt to fight this, some men will turn to T boosters.

Samplaski and her team explored the active ingredients and advertised claims of 50 T boosting supplements. Their findings were published in *The World Journal of Men's Health*.

Researchers performed a Google search with the search term "testosterone booster," mimicking a typical internet research for

someone looking to increase testosterone levels. They then selected the first 50 products that came up in their search. The team reviewed published scientific literature on testosterone and components found in the supplements such as zinc, fenugreek extract and vitamin B6.

While 90% of the T booster supplements claimed to boost testosterone, researchers found that less than 25% of the supplements had data to support their claims. Many also contained high doses of vitamins and minerals, occasionally more than the tolerable limit.

Unlike drugs, supplements are not intended to treat, diagnose, prevent or cure diseases, according to the U.S. Food and Drug Administration. Samplaski would like to see more regulation around T boosting supplements to protect consumers. She also would like to encourage the dissemination of more accurate information in the

hopes that it encourages patients to see a medical professional for low testosterone issues.

Samplaski says there is something men can do to address their concerns. Start with a healthy diet and plenty of exercise.

But, she adds, "The safest and most effective way for men to boost low testosterone levels is to talk with a medical professional or a nutritionist."



# Tracking Toxic Exposure in Pregnant Women, Children

BY JENESSE MILLER

Which foods are the healthiest, and which cause us harm? It's been debated for decades, but even the widely acknowledged healthy diets like fish and fruit may be harmful in higher doses for certain vulnerable groups. That's because of exposure to pesticides and other contaminants in these foods, according to a new study from the Keck School of Medicine of USC.

"Pregnant women and children are particularly vulnerable to exposures to food contaminants," says study co-author Lida Chatzi, MD, PhD, associate professor of preventive medicine at the Keck School. "During gestation and early development, the fetus and the child, respectively, are vulnerable to the effects of environmental chemicals. A balanced diet during these periods is also critical for optimal nutritional status, but what to eat, and how much, are critical questions."

A large team of investigators from USC and institutions throughout Europe looked at the association between diet and levels of 33 environmental contaminants in mothers and their children from six European



countries. They found that the higher the fish consumption, the higher the levels of toxic persistent chemicals in the blood for both pregnant women and their children. The chemicals included polychlorinated biphenyls (PCBs), perfluoroalkyl substances (PFAS) and the toxic metals arsenic and mercury.

The study authors assessed the effect of dietary recommendations for fish on maternal and child levels of environmental chemicals: specifically, up to three servings of fish per week for pregnant women and up to two servings per week for children. They found that, if the recommendation was followed, it resulted in lower levels of PFAS, arsenic and mercury.

They also found that fruit consumption of more than two servings each day was positively associated with the levels of four organophosphate pesticides (OP) metabolites measured in urine samples for both pregnant women and children. Finally, the researchers found that children who ate organic food more than once per week had lower levels of OP and phthalate metabolites in their urine, compared to children who reported not eating organic food.

# Augmented Reality Glasses: A New Way to See the World

BY WENDY WOLFSON

Nearly one in 30 Americans over the age of 40 experience low vision — significant visual impairment that can't be corrected with glasses, contact lenses, medication or surgery.

In a new study of patients with retinitis pigmentosa, an inherited degenerative eye disease that results in poor vision, Keck School of Medicine of USC researchers found that adapted augmented reality (AR) glasses can improve patients' mobility by 50% and grasp performance by 70%.

"Current wearable low vision technologies using virtual reality are limited and can be difficult to use or require patients to undergo extensive training," says Mark Humayun, MD, PhD, director of the USC Dr. Allen and Charlotte Ginsburg Institute

for Biomedical Therapeutics, co-director of the USC Roski Eye Institute and University Professor of Ophthalmology.

"Using a different approach — employing assistive technology to enhance, not replace, natural senses — our team adapted AR glasses that project bright colors onto patients' retinas, corresponding to nearby obstacles," Humayun says.

Patients with retinitis pigmentosa were adapted AR glasses as they navigated through an obstacle course based on a U.S. Food and Drug Administration-validated functional test. Using video of each test, researchers recorded the number of times patients collided with obstacles, as well as the time taken to complete the course. Patients averaged 50% fewer collisions with the adapted AR glasses.

Patients also were asked to grasp a wooden peg against a black background — located behind four other wooden pegs — without touching the front items. Patients demonstrated a 70% increase in grasp performance with the AR glasses.





There are hundreds of **clinical trials** and **studies** currently taking place at Keck Medicine of USC, giving participants access to novel and potentially promising therapies that may not be available elsewhere. For more information on all of Keck Medicine's open clinical trials, visit [clinicaltrials.KeckMedicine.org](https://clinicaltrials.KeckMedicine.org).

### Women's Health

**Title:** Advancing Postmenopausal Preventive Therapy (APPT)

**Purpose:**

Advancing Postmenopausal Preventive Therapy (APPT) is a randomized, double-blinded, placebo-controlled trial designed to determine the effects of tissue selective estrogen complex (TSEC) therapy on the progression of subclinical atherosclerosis and cognitive decline in healthy postmenopausal women.

NCT# NCT04103476  
IRB# HS-18-00788

**Participant criteria:**

Postmenopausal women 45-59 years of age without hysterectomy, cardiovascular disease and diabetes.

**USC Investigator:**

Howard N. Hodis, MD

**For details:**

Call (323) 442-2257 or visit [ARU.USC.edu](https://ARU.USC.edu)

### Prostate Cancer

**Title:** Diagnosing Clinically Significant Prostate Cancer in African American and White Men With Elevated PSA

**Purpose:**

Many men with prostate cancer do not need to receive treatment, only monitoring. Therefore, the first step in diagnosing prostate cancer is to do a prostate biopsy to determine whether treatment is needed or not, and to find the most appropriate treatment. Standard biopsy approaches can miss the most aggressive area of cancer, leading to under-diagnosis of disease. Two new protocols will be compared to diagnose prostate cancer that combine the use of imaging and image-guided biopsies, in addition to standard biopsy. The goal is to improve the detection of clinically significant cancer, so that men can make more confident decisions about their treatment and follow-up.

In collaboration with the National Cancer Institute, NCT# NCT03234556  
IRB# HS-16-00952

**Participant criteria:**

African American and white men (Hispanic or non-Hispanic) with elevated Prostate Specific Antigen who are eligible for a prostate biopsy and willing to undergo an MRI. Men with a history of prostate surgery, or a positive prostate biopsy or digital rectal exam are not eligible to participate.

**USC Investigators:**

Inderbir S. Gill, MD, and Mariana C. Stern, PhD

**For details:**

Tigran Margaryan, MD, (323) 865-3743, Tigran.Margaryan@med.usc.edu

### Sleep Apnea

**Title:** Drug-Induced Sleep Endoscopy for Upper Airway Evaluation in Obstructive Sleep Apnea

**Purpose:**

This study is designed to evaluate the role of drug-induced sleep endoscopy (DISE) in patients undergoing obstructive sleep apnea surgery at Keck Medical Center of USC. Our previous research has determined the reliability of DISE and compared DISE to other evaluation techniques. Our ongoing research examines how DISE can be used to improve outcomes in sleep apnea surgery.

In collaboration with the National Institutes of Health, NCT# NCT0695214  
IRB# HS-13-00379

**Participant criteria:**

Men & Women; 18 years and older

**USC Investigator:**

Eric J. Kezirian, MD, MPH

**For details:**

Eric J. Kezirian, MD, MPH, [Eric.Kezirian@med.usc.edu](mailto:Eric.Kezirian@med.usc.edu)



# Illuminating Patient Care Through Research

I firmly believe that you can't be a top surgeon if you're only well-versed in current techniques. A true top surgeon actively develops new techniques and devices to stay at the forefront of medicine. To this end, USC Surgery has worked hard to establish a culture in which research is enabled and promoted as a continuous, active focus.

Our division of clinical research includes research coordinators, data managers, and regulatory and budgeting specialists. This allows our researchers to turn to the division for everything: feasibility of grant applications, budgeting and team-building.

The division works with our surgical faculty to test new devices, drugs and treatments, ensuring that our patients benefit from the latest advances and our surgeons stay on the leading edge of their specialties.

Progress leaps forward when surgeons, medical doctors

and basic scientists collaborate. We make a point of hiring top surgeon-scientists who constantly work toward new breakthroughs. Their curiosity means they are ready to fight any disease that comes their way, and it's driven by deep compassion.

This culture of research has been a major contributor to our outstanding performance in the 2019–2020 U.S. News & World Report rankings, with cardiology & heart surgery coming in at 11 in the country, gastroenterology & GI surgery at 13, and pulmonary & lung surgery at 33. We're proud of these rankings, but we look at them the same way we look at our research breakthroughs: This is only the beginning.

*Vaughn Starnes, MD, is the chair of the Department of Surgery at the Keck School of Medicine of USC, and chief of cardiovascular surgery at Keck Medicine of USC.*



perspective



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