

'A Completely Normal Life'

New testicular cancer treatment option enables fatherhood | Page 10

USC health

2023
ISSUE TWO

A PUBLICATION OF
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RANKED IN
10 SPECIALTIES
2023-2024

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Check In

2023
ISSUE TWO



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, USC Arcadia Hospital and more than 80 outpatient facilities throughout Los Angeles, Orange, Kern, Tulare and Ventura counties.

Keck Medical Center of USC, which includes Keck Hospital and USC Norris Cancer Hospital, was ranked among the top hospitals nationwide on U.S. News & World Report's 2023-24 Best Hospitals and among the top three hospitals in Los Angeles and top five in California. The medical center was also nationally recognized among the top 50 in 10 medical specialties.

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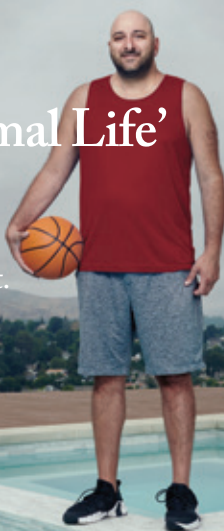
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| Sports Injuries | Flu Prevention Tips | U.S. News & World Report Rankings |
| LA Pride | Prepare for Back Surgery | Meet Our Staff



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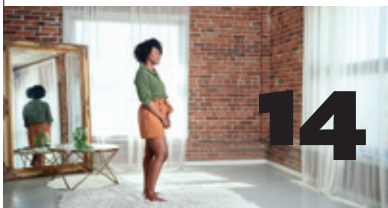
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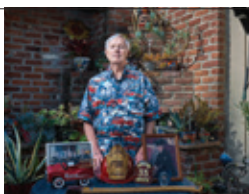
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Vitals

Sustainability Efforts Support Public Health

With an eye on long-term sustainability, Keck Medicine of USC has taken steps to reduce fossil fuel emissions and has eliminated or reduced use of anesthetics that have a harsh environmental impact.

In late 2022, Keck Medicine discontinued use of desflurane, a commonly used anesthetic that can linger in the atmosphere for more than 10 years.

This year, the organization also stopped using nitrous oxide — a highly potent greenhouse gas — and reduced excess waste of the anesthetic propofol.

Additionally, all outdoor lighting at Keck Medical Center of USC has been switched to LED, which uses less electricity and reduces fossil fuel burning.

“Often, we focus entirely on caring for patients in a clinical setting,” says Arash Motamed, MD, MBA, medical director of sustainability for Keck Medicine, who in April received the California Society of Anesthesiologists’ Clinical Innovator of the Year Award.

“But we also need to consider how we impact the environment in a way that’s proven to harm people’s health.”

Health care contributes to 8.5% of annual carbon dioxide emissions in the United States, according to The New England Journal of Medicine.

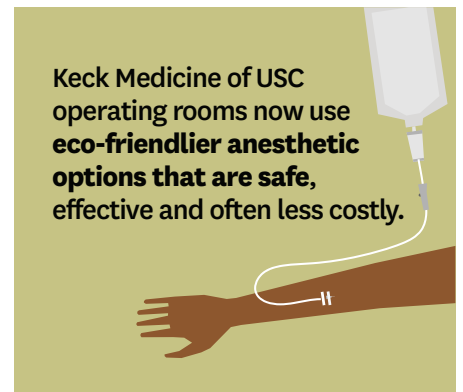
An eight-hour surgery using desflurane anesthetic can release as much carbon dioxide equivalent as driving from Los Angeles to Maine.



Desflurane lingers for 10 years in the atmosphere.



Keck Medicine of USC operating rooms now use eco-friendlier anesthetic options that are safe, effective and often less costly.



Keck Medicine is also working to reduce propofol waste — toxic to aquatic life — and has retired central and cylinder supplies of nitrous oxide, a highly potent greenhouse gas.



USC Urology Working Toward World's First Bladder Transplant



Ricardo Carrasco III

Urologists with Keck Medicine of USC have launched a clinical trial to perform the world's first human bladder transplant.

During the procedure, a patient's diseased bladder will be removed and replaced with a healthy bladder from a deceased donor.

"Transplantation is a lifesaving treatment option for conditions affecting many major organs, and transplanting a bladder could be a historic step in improving lives," says Inderbir Gill, MD, founding executive director for USC Urology, part of Keck Medicine, and chairman, Catherine and Joseph Aresty Department of Urology, Keck School of Medicine of USC.

A large number of people experience varying degrees of bladder disease and dysfunction.

Some patients with these conditions may require a bladder reconstruction, a surgical procedure wherein the bladder is removed, and a new bladder is made from the patient's own intestines.

But the procedure carries a high risk of early and delayed adverse side effects, and not every patient is a candidate for this surgery.

"We have worked diligently to expand the boundaries of what is considered possible for severely compromised patients who traditionally have had few options," says Nima Nassiri, MD, a former urologic resident and researcher with the Keck School and Dr. Gill's collaborator on the clinical trial, which is actively screening potential participants.

Bladder transplants have not been done previously, in part because of the complicated vascular structure of the pelvic area and the technical complexity of the procedure.

As part of the research and development stage, Drs. Gill and Nassiri and their colleagues successfully completed many practice transplantation surgeries — including the first-ever robotic bladder retrievals and successful robotic transplantations in five recently deceased donors with cardiac function maintained on ventilator support.

Keck Medicine's USC Transplant Institute provided infrastructure support to the urology team for pioneering the first bladder transplant, which may be done entirely by robotic surgery.



Class Notes

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Where: Virtual, via Zoom

When: Monthly, over two evening sessions

How much: \$80

For more information, call (800) 950-BABY or visit USCArcadiaHospital.org/events

what's the
Word?

Rhabdomyolysis

noun

[rhab-do-my-ol-y-sis]

A condition characterized by the injury — and the ensuing breakdown — of skeletal muscle tissue that leads to the release of potentially toxic muscle cell contents into the bloodstream. It is common among athletes.

Also known as “rhabdo,” the condition is often marked by prolonged muscle pain and weakness. Left unaddressed, it can lead to kidney failure, permanent disability and even death.

“If someone engages in strenuous physical activity and experiences severe muscle pain that doesn’t improve with rest, they should seek immediate medical attention,” says Frank Petrigliano, MD, an orthopaedic surgeon with Keck Medicine of USC. “Other signs can be dark urine or decreased urine output.”

Not all rhabdo patients experience the same symptoms — and it can take hours to days to become symptomatic.

For follow-up care, our expert physicians can help. To learn more or schedule an appointment, call (800) USC-CARE or visit [KeckMedicine.org/orthopedics](https://www.keckmedicine.org/orthopedics).



When Your Young Athlete Gets Injured

Teen athletes are prone to sprains and broken bones, but there are three injuries that require specialized care. The experts of Keck Medicine of USC share how to recognize them and what to do.



Knee injuries

Sports ask a lot of our knees: to stop quickly, to twist and bend, and to withstand extra pressure. The knee is a complex joint, so it can get hurt in several different ways — including ACL and meniscal tears, dislocations and patellar tendinitis (runner’s knee).

Treatments: RICE (rest, ice, compression, elevation), knee brace, nonsteroidal anti-inflammatory drugs, physical therapy, surgery for severe injuries

Rotator cuff injuries

The muscles and tendons surrounding an athlete’s shoulder joints work hard, and they often perform repetitive tasks. This can lead to tendinitis or bursitis. These injuries do not always hurt, but they can cause weakness in the arm or clicking when the shoulder moves.

Treatments: avoiding painful movements, nonsteroidal anti-inflammatory drugs, physical therapy, injections for pain, surgery for severe or persistent injuries

Stress fractures

These tiny cracks in the bones are caused by overuse. Common symptoms are tenderness to the touch and pain when using the affected area. Stress fractures can become serious, so visit an orthopaedic surgeon for a confirmed diagnosis and personalized treatment plan.

Treatments: cold compresses, over-the-counter pain relievers, crutches for protected weight bearing

5 Ways to Prevent the **flu**

Every year, as cold and flu season gets underway, people look for ways to avoid getting sick. Carolyn Kaloostian, MD, MPH, a family medicine physician with Keck Medicine of USC, shares simple strategies to help.

1. **Get a flu shot**

It doesn't protect against every type of influenza virus, but a flu shot is still your best defense — and there's evidence the vaccine reduces the severity of flu. The shot is "safe and effective" for everyone 6 months and older, Dr. Kaloostian says.

2. **Practice strong hygiene**

Hand-washing helps protect against colds and flu. If you can't get to a sink, use hand sanitizer with at least 60% alcohol. Avoid close contact with people who are sick, avoid touching your face and regularly sanitize high-touch surfaces.

3. **Get your vitamins and minerals**

Vitamins C and D — and zinc — are essential for immune function. Many adults have low levels of vitamin D, a nutrient with some of the strongest evidence as a defense against cold and flu viruses. Talk to your doctor before taking any supplement.

4. **Maintain a healthy lifestyle**

Keeping your body strong and healthy can fortify your immune system. Prioritize healthful meals, consistent exercise and sleep, and a reasonable work-life balance, says Dr. Kaloostian, who advises therapy or wellness coaching if needed.

5. **Manage your stress**

Stress affects health, so consider strategies such as mindfulness, meditation, dance and pet or music therapy. "Discuss specific issues with your primary care provider or employer to access resources as soon as possible," Dr. Kaloostian says.



flu season



Keck Medical Center Recognized by U.S. News and World Report

Keck Medical Center of USC has been named among the top six hospitals in California — and among the top three hospitals in the Los Angeles metro area — in the U.S. News & World Report Best Hospitals 2023-24 rankings.

The medical center, which includes Keck Hospital of USC and USC Norris Cancer Hospital, also ranked in the top 50 nationwide for 10 of the 15 different specialties analyzed by U.S. News & World Report.

The count for Keck Medical Center has increased by two since last year, and it includes placements for Obstetrics & Gynecology, Neurology & Neurosurgery, and Rehabilitation. USC Norris Cancer Hospital was recognized as a Best Specialty Hospital for the first time.

"We are very pleased with the results," says Rod Hanners, CEO of Keck Medicine of USC.

Additionally, the medical center rated High Performing (the highest rating possible) in 15 common procedures and conditions that were evaluated nationally — including heart bypass, surgery, colon cancer surgery and hip and knee replacement.

This year, U.S. News & World Report began evaluating hospitals in Leukemia, Lymphoma & Myeloma; Keck Medical Center was rated High Performing.



Stepping Out at LA Pride

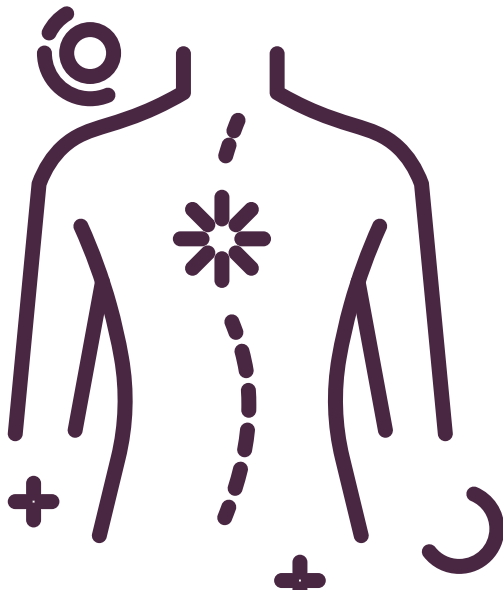
Members of Keck Pride, a resource group for Keck Medicine of USC employees, marched in the LA Pride Parade — where Grammy-nominated singer-actor Janelle Monáe was spotted with a Keck Pride sign. It was one of many activities in June, including Pride flag raisings at Keck Medical Center of USC and USC Arcadia Hospital. Keck Medicine has been named an LGBTQ+ Healthcare Equality Leader by the Human Rights Campaign Foundation for its equitable treatment and inclusion of patients, visitors and staff.



Getty Images

What to Ask Before Back Surgery

Back surgery involves the spine, so the decision to operate merits ample consideration. Jeffrey C. Wang, MD, an orthopaedic surgeon and co-director of the USC Spine Center at Keck Medicine of USC, shares four points to consider before making this big decision.



1. Do I understand all treatment options?

Back surgery should fit with your overall care plan and only be considered when it's the best possible option. "This means you've tried all the reasonable nonsurgical options and conservative treatments, and you know the remaining options," Dr. Wang says.

2. Have I weighed the pros and cons?

Patients should have a basic grasp of their spinal condition to know whether back surgery is likely to alleviate their symptoms, Dr. Wang says. A doctor should be able to explain the benefits and risks of surgery — including what the care team hopes to accomplish with the surgery.

3. Am I physically ready for surgery?

Dr. Wang suggests patients undergo a complete medical evaluation prior to surgery that includes a review of their current medications. He also advises patients to adopt healthful habits to get in the best physical shape possible in the days leading up to the event.

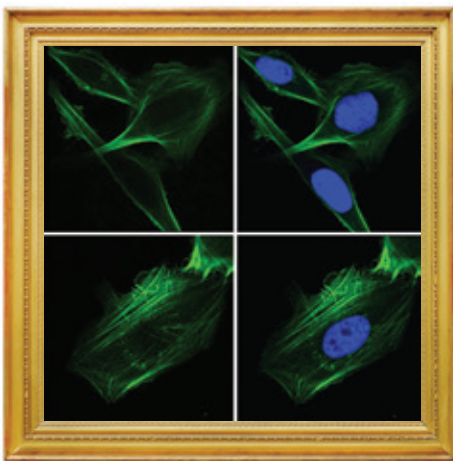
4. Are my emotional concerns addressed?

Talk openly with your surgeon and ask questions. "I always want my patients to feel mentally comfortable with the surgery," Dr. Wang says. It's natural to feel nervous, he adds, but having excessive doubt or resistance could signal a reason to wait.



The *Art* of Imaging

Many areas of medicine, from research to clinical diagnosis and treatment, use advanced technology to see things that the human eye cannot. These images can be beautiful as well as informative.



In images of human lung cancer cells, green stains reveal F-actin — a cytoskeletal protein that controls cell shape and spread. In the top row, nuclei (stained blue) contain GRP78, a protein that makes cancer cells more aggressive. These cells are spindle-shaped, indicating migration. In the bottom row, cells without GRP78 in the nuclei are less mobile, a finding that could inform new cancer treatments. (Image courtesy of Ze Liu, PhD, and Amy Lee, PhD, of the USC Norris Comprehensive Cancer Center, part of Keck Medicine of USC)

Focused on Breast Health

Jenny Huynh envisioned a health care career as a child in Vietnam, where medical resources were often scarce. Today, as a mammography technologist at Keck Medicine of USC – Arcadia, she delivers lifesaving screenings to help women and their doctors detect breast cancer.



▣ Ricardo Carrasco III

What does your job entail?

In addition to performing mammograms, a crucial part of my job is to be caring — to listen to patients and to show them I understand. I stay friendly no matter what, and I'm always joking with my patients to distract them from their worry and any physical discomfort. And if the patient has any abnormalities, I'm the one who calls them and schedules their follow-up.

What keeps you motivated?

You know, I'm inspired every time I do a mammogram. My responsibility is to help save lives while encouraging all patients to take care of their health. If a patient turns out to have cancer, I at least know that I have helped them. I've had some patients come up to me with tears in their eyes, even in grocery stores, to give me a hug for detecting their cancer early.

What should patients know before their first mammogram?

First-time patients are always scared. They've been exposed to people and media saying how painful it is. But these stories are typically exaggerated, and everyone's experience is different. Even if an unusually sensitive patient feels some pain, it only lasts five seconds per picture. Mammograms catch cancer before it can be felt in the breast, which makes the disease a lot easier to treat.



The Big Question

People who avoid doctors and hospitals may feel afraid, embarrassed or distrustful. In some cases, it can be challenging to convince a friend, partner or family member to go — even if they're sick. Two specialists from Keck Medicine of USC offer their advice in The Big Question.



Always remind your friend or family member that their health is important because they are important.

Try to learn what would motivate them to be healthy. Do they want to start a family? What accomplishments do they want to achieve? How about any dreams they want to make a reality?

If your friend or family member is experiencing concerning health symptoms, stress to them that they don't want to dismiss it. It's always better to check with a health care professional. If what they're experiencing is normal, they'll get peace of mind. If not, they can get treated.

Some people avoid even routine visits because they've had a bad experience. Empower your loved one by encouraging them to ask questions and to self-advocate. If they feel unheard or uncomfortable, they have the right to set boundaries, and they can leave at any time.

Finally, help them find a doctor who practices sensitive care. This should include having an assistant in the room to advocate for the patient and make sure they feel safe and comfortable.

Leslie Korostoff, MD,
Chair of OB/GYN,
USC Verdugo Hills Hospital

Many of my patients come in with problems like incontinence. Most have suffered for years or even decades. It usually comes from feelings of shame, fear and isolation.

If you suspect a problem, start by talking to your loved one. Make sure they feel safe and comfortable talking about their symptoms. Let them know they're not alone. If you've been through something similar, tell them.

You can offer to help carry the load. You might make your own appointment and say, "You know what? I'm scheduling my checkup with this doctor. Do you want to see if we can get in around the same time? Then we could go together."

Frame the visit as an information-gathering session. A patient's mind can jump to the worst conclusions, which could make them even more scared to go.

If a serious issue is suspected, the best thing to do is research the least invasive treatments. Then say something like, "If you're worried, I get it. Treatments have come a long way, though, so let's just go and find out your options."

Christine Hsieh, MD,
Colorectal Surgeon,
USC Colorectal Surgery Program

My loved one won't see a doctor. How can I convince them to go?

To make an appointment, call (800) USC-CARE or visit KeckMedicine.org

5 Questions to Ask at Your Next Physical

Your annual checkup is a dedicated time for a candid, one-on-one discussion with your doctor — and the conversation can have a big impact. Jennifer Boozer, DO, a family medicine physician with Keck Medicine of USC, shares a few key points to bring up at your next visit.



What is my body mass index?

This is a measure of body fat based on height and weight. BMI is not a perfect tool, but it gives you a better assessment of your weight and the associated risks than the scale alone. A normal BMI ranges from 18.5 to 24.9.



Do I need any immunizations?

Flu and Tdap (tetanus, diphtheria, and pertussis) vaccines, as well as tetanus booster shots, are essential for adults. Depending on your age, lifestyle and medical condition, you may also consider shingles and pneumonia vaccines.

Which screenings should I get — and how often?

Certain screenings, like those for breast and colon cancers, can vary according to your age, gender and family history. Knowing your risk factors — and sharing them with your provider accordingly — is key.

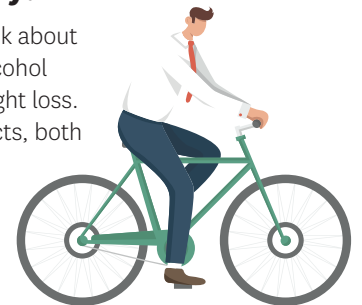


How's my blood pressure?

Hypertension (high blood pressure) can raise your risk for serious conditions such as heart disease and stroke. Ask if your blood pressure reading requires you to take any steps to address hypertension or prehypertension.

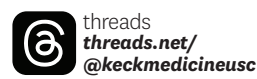
Could you suggest healthy habits to try?

Your annual physical is a perfect time to talk about options for quitting smoking, evaluating alcohol intake or setting goals for exercise and weight loss. Positive lifestyle changes can have big effects, both today and for the long term.



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Examinations

'A Completely Normal Life'

BY ERIN LAVIOLA

Cameron Khani is back on the basketball court after treatment for testicular cancer.

After a testicular cancer diagnosis, Cameron Khani was able to avoid chemotherapy and radiation — thanks to new research from a Keck Medicine of USC specialist who treated him.

Cameron Khani always wanted to be a father. So when he was diagnosed with testicular cancer at the age of 31, the thought of losing that dream was a top concern about his future. He and his fiancé were planning a wedding, and they wanted to have children one day.

The standard testicular cancer treatment of chemotherapy or radiation carries the risk of long-term side effects such as kidney damage — as well as increased odds of cardiovascular disease and secondary cancers.

“I felt devastated by the news I had cancer, but one of my biggest fears was the potential for infertility,” Cameron says.

A clinical trial and innovative care from Keck Medicine of USC helped Cameron avoid those risks, pursue an active life and grow his family.

Sudden cancer discovery

Cameron’s first sign of trouble came without warning.

“I was doing a self-exam in the shower, and I noticed that one testicle was quite literally twice the size of the other,” he says.

He went to urgent care, where a doctor examined him and suspected testicular cancer. A scan the following day confirmed the diagnosis.

After having surgery to remove his left testicle, Cameron received another scan that revealed the cancer had spread to his lymph nodes. He consulted more than a dozen doctors about what to do next.

Several experts recommended Sia Daneshmand, MD, director of urologic oncology for USC Urology, part of Keck Medicine, and the Keck School of Medicine of USC’s Catherine and Joseph Aresty Department of Urology.

At the time, Dr. Daneshmand was in the early stages of a clinical trial that could revolutionize treatment for early metastatic seminoma, one of the two common forms of testicular cancer.

Chemo-free approach

Surgery to remove cancerous lymph nodes from behind the abdomen is an established treatment for metastatic nonseminoma — the other form of testicular cancer, which can grow faster than

seminomas — but it is traditionally performed when chemotherapy fails to eradicate all affected lymph nodes.

Dr. Daneshmand had explored treating early-stage metastatic seminoma patients with surgery alone about a decade ago.

“The first four patients I treated were successfully cured with surgery alone,” says Dr. Daneshmand, who is also a member of USC Norris Comprehensive Cancer Center. “But I knew to move the needle, we would need a prospective, multi-institutional clinical trial.”

The positive results led to a larger clinical trial across several institutions — including Keck Medicine — targeting patients with stage 2 testicular cancer.

Cameron was among the first participants to sign up.

“I was a bit of a pioneer, and I had to take a leap of faith,” Cameron says. “But I really had 100% full confidence in Dr. Daneshmand. The reward was well worth the risk I was taking.”



Sia Daneshmand, MD

“It gave me the opportunity to be able to start a family — and a new perspective on life.”

Cameron Khani

High success rate

The surgery, which involved a 10-centimeter incision along the middle of the abdomen, took place at Keck Hospital of USC.

“The care there is top-notch, and the teams treat you like you’re at a five-star hotel,” Cameron says. “It was the fastest recovery ever. I was back to work in less than three weeks.”

Eight years later, he remains cancer-free.

Cameron and most trial participants — 8 in 10 — were cured without needing further therapy. Fifty-five people in the United States and Canada took part in the trial, including 15 who received surgery at Keck Hospital.

The remainder of patients were successfully cured with chemotherapy or additional procedures, for a 100% total survival rate. Most cancer recurrences happened within two years of surgery.

“For the majority of patients to be cured with a single surgery was certainly a big win,” says Dr. Daneshmand, who served as the trial’s lead investigator.

Another big win is the recovery time. Most patients can go home the day after surgery, with orders to rest and avoid heavy lifting for a short period.

“This is a highly successful treatment option that can help patients avoid the systemic toxicities of chemotherapy and radiation therapy,” Dr. Daneshmand says. “I imagine it will become part of the national and international treatment guidelines very soon.”

A bright future

Cameron, now 39, returns to Keck Medicine each year for a CT scan. At the 10-year mark of his surgery, he will no longer require routine surveillance scans.

“It’s extremely rare for cancer like this to come back anywhere in the body after that many years,” Dr. Daneshmand says. “Cameron has a fantastic prognosis and is leading a completely normal life.”

Cameron, who lives in Agoura Hills and works as a technology recruiter, continues to be inspired by his care journey.

And, this summer, he and his now-wife Emily received incredible news: The couple is expecting their first child.

“I was driving on the 101 when I found out, and I just yelled at the top of my lungs,” Cameron says. “In the years since I’ve had the surgery, I can’t tell you how many blessings I’ve had.

“It gave me the opportunity to be able to start a family — and a new perspective on life.”

For more information, call (800) USC-CARE or scan the QR code below



Keep watch for testicular cancer

Testicular cancer is rare, but it is the most common solid cancer in young men, says Sia Daneshmand, MD, director of urologic oncology with Keck Medicine of USC.

He says testicular cancer generally impacts males between ages 15 and 35.

“Awareness is important because many men will ignore enlarged masses in their scrotum, thinking it’s inflammation,” Dr. Daneshmand says, noting that the lumps are often painless, which can further delay medical attention.

Although testicular cancer is easy to diagnose with an ultrasound, the disease may not be discussed during a primary care visit — so it’s vital for men to speak up if they suspect any abnormality.

“Earlier diagnosis of testicular cancer leads to more treatment options, easier management and a better prognosis,” Dr. Daneshmand says.

9,000

Testicular cancer cases diagnosed annually in the U.S.

1 in 250

Men who will experience testicular cancer in their lifetimes

33

Average age when testicular cancer is diagnosed

95%

Survival rate for testicular cancer (98% when treated early)

Source: American Cancer Society


Examinations

Retaining his fertility after cancer treatment gave Cameron Khani a chance to grow his family.



In It Together

BY MICHAEL JULIANI



Comprehensive and empathetic maternity care at USC Verdugo Hills Hospital addresses alarming national trends for pregnant Black women in the United States. Candice Cauley shares her positive journey.

Candice Cauley, considering pregnancy for the first time at age 35, was worried.

“I saw in the news that Black women are three times more likely to die from giving birth than white women,” she says. “It was scary.”

Adding to her worries, the South Los Angeles resident had previously sought care from physicians that she felt were dismissive of her concerns.

These experiences led her to Evelyn Nicole Mitchell, MD, an OB/GYN at USC Verdugo Hills Hospital, part of Keck Medicine of USC, where Dr. Mitchell is on a mission to provide strong, culturally sensitive women’s health care.

Candice began commuting to Dr. Mitchell’s practice in Glendale for preconception care.

“Before she even examined me, we sat down and had a conversation,” Candice says. “Right there, that was different than any prior experience I had.”

Supportive treatment approach

Candice’s fears are shared by many Black women in the U.S. who are or who want to become pregnant.

According to a recent study by the Centers for Disease Control and Prevention, Black women are three times more likely than white women to die due to pregnancy complications.

Risk factors include hypertension, diabetes and preeclampsia, a life-threatening condition that causes high blood pressure and potential organ damage in previously healthy pregnant women.

Discrepancies in care and treatment are also to blame for disproportionately high mortality rates, according to the CDC.

“Black women are, unfortunately, not being listened to,” Dr. Mitchell says. “Their concerns are not being thoroughly worked up and appropriately treated, leading to huge disparities in outcomes.”

When Candice first met with Dr. Mitchell in August 2019, she and her husband had been trying for months to get pregnant.

“I was thinking something was wrong, especially at my age,” Candice says. “But Dr. Mitchell assured me that I shouldn’t start worrying yet.”

Three months later, Candice became pregnant. With the stress of the COVID-19 pandemic, she began experiencing headaches.

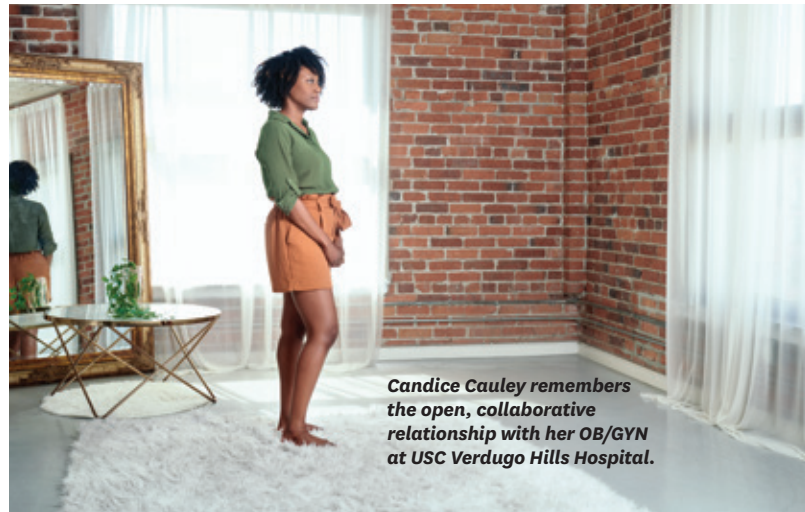
Dr. Mitchell was there to support her.

“She told me that any time I want, if I have questions, if I’m feeling something, just tell her,” says Candice, a former high school teacher who now works as a yearbook representative.

“She was saying, ‘We’re in this together.’”

Representation at every step

At USC-VHH, Dr. Mitchell is part of a women’s health practice comprised of mostly women of color.



Candice Cauley remembers the open, collaborative relationship with her OB/GYN at USC Verdugo Hills Hospital.

She says that while the same depth of care should be provided to all patients, no matter the physician’s personal background, diverse representation is a positive step.

“I see myself in many of my patients,” Dr. Mitchell says. “I have experienced discrimination and bias as a patient — my family members as well.”

Together, Candice and Dr. Mitchell developed a birth plan, including Candice’s hopes to avoid a cesarean section. Dr. Mitchell also encouraged her to enroll in USC-VHH’s maternity courses.

When Candice went into labor in August 2020, her baby’s heart rate began to drop any time she pushed. Suddenly, a C-section began to seem like a possibility.

Knowing Candice’s wishes, Dr. Mitchell exhausted every other option.

“I was very thankful for that,” Candice says. “Being a Black woman and having a Black woman as my doctor, I felt that she was looking out for me.”

Continued on Page 35



Evelyn Nicole Mitchell, MD

Maternity Care at USC Verdugo Hills Hospital

From pregnancy to childbirth to postpartum, mothers can benefit from a wide range of services and capabilities at USC Verdugo Hills Hospital. Our offerings include:

- Private labor, delivery and recovery suites
- Couplet Care, which means your baby stays in your room, and you work with the same nursing team throughout your stay
- Level II NICU with best-in-class care for newborn babies who need extra support
- Educational classes, including childbirth preparation, infant care, infant CPR and breastfeeding support

Help for Headaches

6 Specialists to Know

BY KATE FAYE

Occasional headaches are normal. But if your pain is chronic, severe or includes other symptoms, it's time to get checked out. Your family physician can help you decide if you need to seek advanced care for your symptoms. Experts from Keck Medicine of USC share common causes of headache and the specialists best suited to help.



Headaches:

Neurology

A migraine is more than just a bad headache. “Symptoms can include sensory sensitivity, vomiting, dizziness or brain fog,” says Keck Medicine neurologist Lauren Green, DO. Keeping a migraine journal will help your doctor determine the best treatment.

Prevent and treat migraines:

- **Lifestyle adjustments**
- **Prescription medication**
- **Wearable nerve-stimulation devices**

Spinal medicine

Contrary to popular belief, spinal pathology is an uncommon cause. Michael Safaee, MD, of the USC Spine Center, recommends seeing a headache specialist first. “An MRI will typically rule out spinal nerve compression as the cause,” he says. “Migraine and tension headaches are much more common.”

Healing and pain management:

- **Physical therapy**
- **Steroid or nerve block injections**
- **Surgery**

Ear, nose and throat

Sinusitis, allergies, ear infections and TMJ are frequent causes of headache, says Keck Medicine otolaryngologist Uttam Sinha, MD. “It’s rare, but infections can cause meningitis or a clot in a blood vessel,” Dr. Sinha says. If you have severe, painkiller-resistant headaches with eye problems, fever or stroke-like symptoms, call 911.

Routine and emergency care:

- **Allergy pills or injections**
- **Intravenous antibiotics**
- **Anticoagulants for thrombosis**
- **Surgery**

Endocrinology

Hyperthyroidism and diabetic glucose imbalance can worsen migraines. “And pituitary tumors cause chronic headaches at the back of the skull,” says Keck Medicine endocrinologist Trevor E. Angell, MD. Lifestyle management and medication may be a first step to relief.

Treat the cause:

- **Diabetes: Modified glucose management**
- **Hyperthyroidism: Medication**
- **Pituitary tumors: Surgery**

OB/GYN

Lowered estrogen levels may cause intense headaches and migraines. “It can impact patients during their periods and after menopause,” says Anna Reinert, MD, a Keck Medicine OB/GYN. “Oral contraceptive placebo weeks can affect some patients severely.”

Get personalized treatment:

- **Triptan drugs for migraine**
- **Magnesium supplements**
- **Hormonal support**

Brain Tumor

Whether cancerous or benign, a brain tumor puts pressure on surrounding tissue, says Gabriel Zada, MD, director of the USC Brain Tumor Center. “These headaches are persistent and get worse over time,” Dr. Zada says. “Watch for vision changes, seizures or weight loss.”

Depending on size and type:

- **Medication**
- **Nonsurgical cancer treatments**
- **Surgical removal**



Important:

If you get a sudden, debilitating headache with a stiff neck, seizures, numbness in the face or extremities, a drooping or dilated eye, trouble speaking or loss of consciousness, it could be a stroke or an aneurysm. Call 911 immediately.





With renewed energy after treatment for atrial fibrillation, Victoria Farraj enjoys sewing and long walks in her neighborhood.

Kremer Johnson Photography

Rhythm of Life

BY CANDACE PEARSON

A minimally invasive treatment for atrial fibrillation performed by Keck Medicine's USC Cardiac and Vascular Institute helped calm Victoria Farraj's rapid heartbeat.

Victoria Farraj was with her kindergarten class, dealing with an “exceptionally active” student, the first time it happened. Her heart suddenly started racing.

By the time Victoria, then 61 years old, got home that day in January 2013, the problem went away. But about one year later, Victoria's heart began to beat so fast she felt as if it could leap out of her chest.

An electrocardiogram at her doctor's office told the story: It was atrial fibrillation (AFib), the most common type of heart arrhythmia, where the heart beats in an irregular manner.

Most likely to strike after age 60, AFib can occur at any age. Left untreated, it can lead to heart failure symptoms, stroke and other complications.

'There's no warning'

Under a cardiologist's care, Victoria began taking medications to control her rapid heartbeat.

But her heart would still periodically start racing at 132 to 138 beats per minute, often waking her in the night. A normal resting heart rate is 60 to 100 beats per minute.

"It's so disconcerting to have AFib because it just happens," says Victoria, noting that the physically draining episodes kept her from exercising and traveling. "There's no warning."

Other interventions followed. Over a nearly two-year period, Victoria had a cardioversion procedure — quick, low-energy shocks to the heart to restore a regular rhythm — three times.

She also had two cardiac ablations that involved the threading of a thin, flexible tube called a catheter through her veins into her heart to create scar tissue to break up the irregular rhythm.

Victoria's doctors determined she had a type of AFib called long-standing persistent atrial fibrillation.

"It's difficult to treat, and a very different disease than paroxysmal (occasional) AFib," says Jonathan Praeger, MD, a cardiothoracic surgeon at the USC Cardiac and Vascular Institute.

Victoria was referred to Dr. Praeger in the fall of 2021 to learn about an AFib treatment option she had never heard of — the totally thoracoscopic maze (TT Maze) — that might finally bring relief.

A strategic block

In a maze procedure, a surgeon uses different types of energy to create scar tissue in a pattern (maze) on the heart's upper chambers because scar tissue can't conduct electricity.

As a result, the "maze" blocks the faulty electrical signals behind AFib while allowing normal heartbeat signals to get through.

A standard maze involves open-heart surgery and is usually performed on patients who have other cardiac issues, such as coronary artery disease. The minimally invasive TT Maze approach is done for individuals dealing only with AFib.

"I work through incisions a centimeter wide," Dr. Praeger says. "You get close to all the benefits of a traditional maze procedure without having to open the chest."

Victoria underwent a TT Maze procedure in February. After making a few small incisions, Dr. Praeger deployed an endoscope — a thin tube with a video camera at one end — to view magnified images of Victoria's heart in real time.

Using radiofrequency, he built a scar pattern on the exterior of her heart's left upper chamber. He then clipped and excluded the left atrial appendage, a blind pouch where the blood pools and clots typically form.

Finally, Dr. Praeger removed a piece of unneeded tissue on the outside of the heart, called the ligament of Marshall, which can be a source of AFib.

"It's so disconcerting to have AFib because it just happens. There's no warning."

Victoria Farraj

Healthy heartbeat

Before Victoria left the operating room, her heart had returned to normal sinus rhythm.

"Almost always, I can watch a patient's heart convert back to a healthy rhythm as soon as the procedure is over," Dr. Praeger says. "It's so gratifying to watch the hemodynamics improve."

The heart takes about three months to settle into its new rhythm. Victoria experienced a few minor incidents of AFib soon after the procedure, but she has been in good health since.

"I feel wonderful," says Victoria, who is now 72 and living in Glendora.

Under her cardiologist's direction, Victoria began weaning off her heart medications. She is back to taking long walks, helping to care for her young grandson, Archer, and enjoying life with her husband, George.



Jonathan Praeger, MD



Kremer Johnson Photography

“I feel wonderful,” says Victoria Farraj, who received care for her rapid heartbeat at Keck Medicine’s USC Cardiac and Vascular Institute.

The TT Maze procedure — which offers a quicker recovery and less bleeding and postoperative pain than a standard open-heart maze — is technically challenging to perform and not widely available.

“The fact that we can offer it here at Keck Medicine speaks to our expertise and our willingness to take on innovative procedures,” Dr. Praeger says. “It has changed patients’ lives, and that success is what drives me to continue.”

To learn more or to schedule an appointment, call (800) USC-CARE or scan the QR code below



Atrial fibrillation: symptoms, causes and treatment

AFib is poised to affect more than 12 million people by 2030. Symptoms include fatigue, fluttering or “thumping” in the chest, dizziness and shortness of breath.

Those who have existing heart disease, high blood pressure, diabetes or hyperthyroidism — or who are obese or heavy alcohol users — are more likely to develop AFib.

Lifestyle changes, medications, blood thinners, weight loss and surgery can help. A doctor can provide an in-depth exam and diagnosis, as well as options for treatment and risk reduction.



Cultural Connection

BY HOPE HAMASHIGE

Asking about a patient's Chinese heritage helped a Keck Medicine of USC otolaryngologist identify — and treat — a rare nasal cancer common in certain parts of Asia.

Danny Kwok was a little surprised when, during his first office visit with Keck Medicine of USC otolaryngologist Kevin Hur, MD, one of Dr. Hur's first questions for Danny was where he was born.

"I didn't know what that had to do with my ear," says Danny, who had lost hearing in one ear several weeks before seeing Dr. Hur, "but I told him that I was born in Hong Kong and moved to the United States 40 years ago."

That was pretty much all Dr. Hur needed to know.

He suspected that the source of Danny's hearing loss might not be in his ear.

Using an endoscope to look in his patient's nose, Dr. Hur identified the culprit: a tumor on the left side of Danny's nose that had also caused a buildup of fluid around his eardrum.

The type of cancer, called nasopharyngeal carcinoma, is extremely rare in the general population in the United States.

A doctor's intuition

Asian immigrants from southern China and Southeast Asia have an elevated risk of developing nasopharyngeal carcinoma, which is why Dr. Hur asked Danny about his birthplace.

Unfortunately, for some patients, nasopharyngeal carcinoma can be relatively tough to diagnose. People often develop symptoms such as hearing loss, ringing in the ears, headaches or nasal congestion — all of which can be confused with ear or sinus infections.

As a result, nasopharyngeal carcinoma is typically found when it is in an advanced stage.

Dr. Hur, an endoscopic sinus and skull base surgeon specializing in



A care provider who asked the right questions helped Danny Kwok discover the cause of his hearing loss.

Risk factors for nasopharyngeal cancer

Nasopharyngeal cancer, or NPC, is extremely rare among people born in the U.S. — but it’s more common among people in eastern and southern China, and Southeast Asia. Other risk factors include:

Gender

Males are 2 to 3 times more likely to develop NPC.

Diet

In regions where NPC is common, diets are typically high in salt-cured fish and meat.

Human papillomavirus

Some high-risk types of HPV may be linked to a small group of NPC cases.

Family history

Relatives of people with NPC are more likely to get this cancer.

Lifestyle

Smoking and heavy drinking are both linked to NPC.

the treatment of sinonasal disease, typically checks for nasopharyngeal cancer if patients have other head and neck symptoms and a history of immigration from this area of Asia.

“People from that region are 10 times more likely than other people in the U.S. to develop this cancer,” says Dr. Hur, who practices at Keck Medicine’s Arcadia clinic. “And when it comes to any cancer, it is important to get a diagnosis as early as possible.”

Strong prognosis and care

Because Dr. Hur knew what to look for, Danny got a proper diagnosis early, when his cancer was not very advanced. On that first visit, Danny also had a CT scan that confirmed the presence of a tumor and mapped out its exact location.

Danny, a San Dimas resident, began treatment after just a few weeks at Keck Medicine’s Arcadia clinic with USC Norris Comprehensive Cancer Center radiation

“I am so grateful to Dr. Hur for figuring this out.”

Danny Kwok

oncologist Jennifer Ho, MD, and medical oncologist Jenny Zhou, MD.

Ultimately, he underwent about six months of chemotherapy and radiation, which he completed at the end of 2021.

Looking back, Danny says he is grateful to the team of doctors who treated his illness and put his mind at ease.

“They were patient with me and listened to me,” Danny says. “I asked a lot of questions, and nobody ever rushed me. At the end of my visits, they always made sure they answered my concerns.”

Worldly medicine

Danny still has a few minor side effects from the radiation, including dry mouth, but his hearing is fine, and the side effects are improving with time.

Most importantly, Danny has been cancer-free since his treatment. Dr. Hur notes that his patient’s prognosis remains good, given that the cancer was found at a relatively early stage.

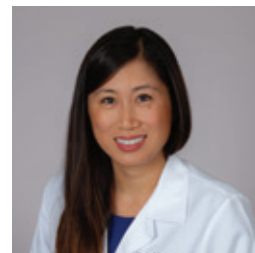
Understanding the unique risk factors and health disparities that affect patients of Asian descent is one key to delivering the best health care, says Dr. Hur, who cites Danny’s health journey — from diagnosis to treatment — as proof.

“I am so grateful to Dr. Hur for figuring this out,” Danny says, “and I hope that all Asian people, if they have symptoms like mine, can find a doctor like him.”

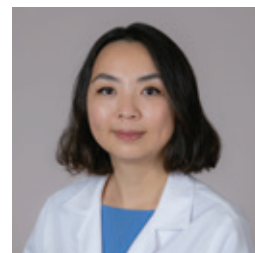
For more information, call (800) USC-CARE or scan the QR code below



Kevin Hur, MD



Jennifer Ho, MD



Jenny Zhou, MD

Brave Heart

Close-to-home emergency care at USC Arcadia Hospital helped Gary Hood obtain quick treatment for a heart attack — and gain easy access to a wider network of lifesaving experts.

BY ROBIN HEFFLER

“I’m on the road to recovery,” says retired firefighter Gary Hood, pictured by an old hydrant he turned into a dog water fountain.



Gary Hood spent more than three decades saving lives as a firefighter in Los Angeles. But when his own life was suddenly in peril, Gary found himself on the other side of the rescue.

One day in late February, Gary experienced tiredness, nausea, vomiting and aches — symptoms he thought were a sign of the flu. Soon after, he felt dizzy and had jaw pain.

“That’s when I knew the writing was on the wall and that it was a possible heart attack,” Gary says. His wife, Kat, a retired cardiac nurse who also recognized the warning signs, called 911.

Paramedics used an electrocardiogram (EKG) test to confirm the diagnosis, and they rushed him to the emergency department at USC Arcadia Hospital, part of Keck Medicine of USC.

The hospital, located just five miles from Gary’s home in Sierra Madre, is also a Los Angeles County-designated comprehensive stroke and heart attack receiving center.

Rapid cardiac care

Gary arrived at USC-AH in cardiogenic shock — which occurs when the heart can’t pump enough blood and oxygen to the brain and other vital organs — and in respiratory failure.

“His blood pressure was low, his heart rate was fast and he had trouble breathing,” says Antreas Hindoyan, MD, a Keck Medicine cardiologist who treated Gary in the emergency department. “His condition was life-threatening, so I told him the only way to save his life was to go to the hospital’s catheterization laboratory.”

In the lab, Dr. Hindoyan guided a small catheter tube through Gary’s blood vessel to his heart. The diagnostic procedure revealed artery blockage and that the patient’s heart attack had



Antreas Hindoyan, MD



Raymond Lee, MD

Ready for any emergency

The full-service, state-of-the-art emergency department at USC Arcadia Hospital is staffed around the clock and outfitted with 26 private rooms and advanced technology to handle virtually any situation.

USC-AH holds a Comprehensive Stroke Center Certification, and it is designated by DNV and Los Angeles County Emergency Medical Services as one of 22 comprehensive stroke centers in the region.

USC-AH is also designated by the county’s EMS as a dedicated heart attack, or STEMI, receiving center for diagnosing and quickly treating heart attack patients.

Additionally, the hospital operates an Emergency Department Approved for Pediatrics that meets specific standards for the care of children ages 14 and under. Staff are trained in pediatric emergency medicine and advanced life support, and they may use pediatric-sized equipment.

Continued on Page 35

Consultations

Keck Hospital of USC Receives Five-Star Rating on National Quality Report



Keck Hospital of USC has earned five stars — the highest rating possible — on the Centers for Medicare & Medicaid Services (CMS) 2023 quality star rating report. Nationwide, fewer than 1 in 5 hospitals nationwide receive a five-star rating.

“This prestigious designation demonstrates our continuing commitment to patient safety and to the best patient outcomes,” says Stephanie Hall, MD, MHA, chief medical officer of Keck Hospital and USC Norris Cancer Hospital. “It is the result of the hard work of every physician, nurse and staff member at the hospital.”

A hospital’s star rating, awarded on a scale of one to five, is based on performance across five different areas of quality measures.

A five-star rating indicates that Keck Hospital outperforms the national average in all categories, says Marty Sargeant, MBA, CEO of Keck Hospital and USC Norris Cancer Hospital, who called the rating “a tremendous validation of our commitment to quality care.”

The CMS rating system was launched in 2016 to help patients and caregivers make informed decisions when selecting a hospital. Hospitals report quality data to the CMS through multiple channels, and the data is then reviewed and standardized to calculate hospital star rankings.

“This prestigious designation demonstrates our continuing commitment to patient safety and to the best patient outcomes.”

Stephanie Hall, MD, MHA,
chief medical officer of Keck Hospital and USC Norris Cancer Hospital

How hospital quality ratings are calculated

Readmission: Returns to the hospital following a hospitalization

Mortality: Death rates of patients in the 30 days following a hospitalization

Safety of care: Potentially preventable injury and complications due to care provided during hospitalization

Timely and effective care: How often (or how quickly) research-backed, results-driven care is delivered

Patient experience: Strong communication from caregivers and positive patient testimonials

Keck Hospital of USC Receives Magnet Redesignation

For the second time in its history, Keck Hospital of USC has achieved redesignation from the American Nurses Credentialing Center’s (ANCC) Magnet Recognition program.

Magnet hospitals are recognized by the ANCC as possessing the highest level of care, providing benefits to both patients and nurses.

“It’s no secret that those working in the nursing field experience any number of challenges, from long days to the complex needs of patients,” says Annette Sy, DNP, RN, NE-BC, chief nursing executive at Keck Medical Center of USC.

“Their talents, compassion and generosity are on display at all times, and this Magnet redesignation confirms that Keck Hospital possesses the gold standard in nursing excellence.”

The designation confirms that a health care facility not only dispenses the highest standards of patient care, but also incorporates the most up-to-date and innovative practices.

To earn Magnet recognition, organizations must provide ANCC both qualitative and quantitative evidence on patient care and outcomes. ANCC also conducts a site visit to determine whether a facility meets the criteria for Magnet status.

Research has shown that Magnet recognition is associated with positive outcomes such as higher patient satisfaction, a lower risk of 30-day mortality and higher job satisfaction among nurses.



Ricardo Carrasco III

Vascular Care Earns Top Honors

Keck Medicine of USC’s Center for Vascular Care is one of just four programs in the United States to be verified by the new Vascular Verification Program overseen by the Society for Vascular Surgery and the American College of Surgeons.

The program was developed to offer a framework that helps patients choose a vascular center with solid research, exceptional quality of care and a patient-centered approach.

To earn verification, many aspects of the Keck Medicine center were scrutinized — including its providers and managers, equipment and facilities, administrative support and the handling of complex conditions such as aortic aneurysms, carotid disease and peripheral artery disease. The center’s grants, research productivity and data-driven outcomes analyses were also reviewed.

“It’s not enough to be satisfied with an outstanding quality of care,” says Fred Weaver, MD, MMM, chief of the division of vascular surgery and endovascular therapy. “We need to be pushing the field forward as a whole.”

Such progress, he notes, requires a team effort.

“The Center for Vascular Care intersects and collaborates with cardiac surgery, neurosurgery, cardiology, interventional radiology, vascular diagnostic imaging and, of course, dozens of support staff, allied health professionals and quality officers,” Dr. Weaver says. “This achievement took everyone working at top form.”

10 Years of Lifesaving ECMO Therapy

Keck Medical Center of USC recently celebrated the 10th anniversary of its nurse-run extracorporeal membrane oxygenation (ECMO) program. ECMO therapy is used to support patients experiencing life-threatening respiratory or cardiac failure by bypassing failing organs and oxygenating a patient's blood outside the body.

In many cases, ECMO therapy sustains individuals waiting for a heart or lung transplant.



Joan M. Romero

While health experts recognize ECMO as the maximum level of life support that can be provided to a patient, not all hospitals are equipped to provide this service. And Keck Medicine of USC has one of only a handful of programs in the nation that is operated by nurses.

When Keck Hospital of USC introduced ECMO to its intensive care unit bedside nurses in 2013, they developed the expertise necessary to run the machines — and the program — through staff education and training programs.

Since then, its nurses have used ECMO therapy to help more than 700 patients.



Keck Medical Center Awards 'Physician of the Year'

Gabriel Zada, MD, director of the USC Brain Tumor Center, has been named Keck Medical Center of USC's Physician of the Year.

The first-ever award, to be presented annually, was created to recognize providers who embody the mission, vision and values of Keck Medicine of USC.

"Dr. Zada handles a large number of intricate, high-risk cases," says Stephanie Hall, MD, MHA, chief medical officer for Keck Medical Center — which includes Keck Hospital of USC, USC Norris Cancer Hospital and other Keck Medicine patient care areas on the Health Sciences Campus. "In those situations, the emotional needs of patients and families can be understandably high.

"Dr. Zada advocates for his patients at every level of care, and he treats every team member with respect."

A board-certified neurosurgeon and an internationally recognized expert in brain, skull base and pituitary tumor surgery — as well as a variety of endoscopic and minimally invasive neurosurgical techniques — Dr. Zada has treated over 2,000 patients.

A New Name for LAC+USC

Los Angeles County Medical Center (LAC+USC) is now known as Los Angeles General Medical Center (LA General).

The 600-bed hospital in Boyle Heights is a Level 1 trauma center and an academic teaching hospital run by the Los Angeles County Department of Health Services.

A longtime affiliation with the Keck School of Medicine of USC will continue. LA General will also remain a training site for the U.S. Navy, and no changes will be made to hospital services.

“Our commitment to the hospital remains the same,” says Steven D. Shapiro, MD, senior vice president for health affairs at USC, whose role includes overseeing the Keck School. “USC will continue to serve Los Angeles County’s patients by providing world-class physicians and training in our joint medical programs.”



Ricardo Carrasco III

The name change, approved in May by the LA County Board of Supervisors, was guided by community input and a desire to reflect offerings beyond emergency medicine and trauma care.

The hospital’s origins date back to 1878 when the county opened a 100-bed facility on Mission Road for indigent patients (a partnership with USC’s medical school began in 1885).

A 1-million-square-foot building opened in 1933; a new one opened in 2008 following damage to the prior structure after a 1994 earthquake. LA General is one of the busiest emergency departments in the United States.

Keck Medicine Hospitals Recognized by AHA

Keck Hospital of USC has received the American Heart Association’s Get With The Guidelines – Heart Failure Gold Plus Award for 2023.

The award marks a commitment to improving outcomes for heart failure patients through measures that include improved medication adherence, early follow-up care and coordination, and enhanced patient education.

Keck Hospital and USC Norris Cancer Hospital both received the AHA’s Get With The Guidelines – Resuscitation Silver Award for treating in-hospital cardiac arrest, which affects more than 300,000 adults and children nationwide each year.

Keck Hospital also received AHA Honor Roll designations for providing excellent care and outcomes for heart failure and Type 2 diabetes.

Additionally, USC Arcadia Hospital received the AHA’s Get With The Guidelines – Stroke Gold Plus Award, which included Honor Roll Elite Plus status. The hospital was also named to the Target: Type 2 Diabetes Honor Roll.

The program puts the expertise of the AHA and American Stroke Association to work for hospitals nationwide by helping ensure care delivery is aligned with the latest research-based guidelines and scientific evidence.

The model “makes it easier for our teams to put proven knowledge and guidelines to work on a daily basis,” says Stephanie Hall, MD, MHA, chief medical officer for Keck Medical Center of USC. “The end goal is to ensure more people in the communities in which we operate experience longer, healthier lives.”



Smart Tech Enhances Safety at USC-VHH

USC Verdugo Hills Hospital is one of many types of facilities boosting efforts to detect potential threats of weapons and physical violence.

The hospital relies on a security system that uses closed captioning camera footage and AI-generated software to deliver 24-hour intrusion detection and protection of all entrance points.

“We’re not only able to make the environment a lot safer, but also more manageable and informed in terms of security,” says Armand Dorian, MD, MMM, the hospital’s CEO.

The system’s gun detection technology, for instance, can identify a wide variety of firearms in real time and track potential aggressors through the connected camera system. Facial recognition features allow for identification of individuals placed on be-on-the-lookout lists, as well as anyone flagged by USC-VHH security teams as a potential threat.

The tools are just as valuable outside of a crisis incident, says Steve Vargas, director of security for USC-VHH. Because the AI-generated system is integrated with an existing video surveillance system, the hospital’s security department can now send faster real-time alerts.

“The system has helped the hospital reduce false alarms, improve response times and provide a safer and more efficient environment for patients, visitors and staff,” Vargas says.



Robert Shappley, JD, MBA



Tadren Kennedy, MPH, MBA

Two New COOs Join Keck Medicine

Two Keck Medicine of USC hospitals recently welcomed new chief operating officers to their teams. Both leaders are seasoned health care executives with years of experience driving expansion and high-quality care capabilities.

Robert (Robbie) Shappley, JD, MBA, became the COO at USC Arcadia Hospital in June. Shappley, who most recently held the same title at Fountain Valley Regional Hospital in Orange County, will prioritize the financial viability and operational effectiveness of the hospital in Arcadia.

He will also be responsible for monitoring employee, patient and physician satisfaction, and leading the implementation of creative programs to support strategic goals.

Tadren Kennedy, MPH, MBA, joined USC Verdugo Hills Hospital as its COO in August. A veteran of Ochsner Medical Center in New Orleans, where he served as vice president of operations, Kennedy will manage and direct operations within the hospital.

Kennedy’s role will be closely aligned with the chief nursing officer at USC-VHH to strengthen and advance the hospital’s clinical service environment to help deliver exceptional patient care.



Ricardo Carrasco III

USC Arcadia Hospital Named to ‘Great Community Hospitals’ List

Becker’s Hospital Review has placed USC Arcadia Hospital on its 2023 list of 153 “great community hospitals.”

The selections were based on several outside rankings and ratings organizations, including U.S. News & World Report, Healthgrades, the Centers for Medicare and Medicaid Services, The Leapfrog Group and the Chartis Center for Rural Health.

“Community hospitals are vital pieces of the overall health care system, expanding care access to patients who might otherwise need to travel great distances or face other barriers to care,” the publication’s announcement stated. “These community hospitals are lauded for their clinical excellence, compassionate care and economic impact on their communities.”

Clinical Trials



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 open clinical trials, visit clinicaltrials.KeckMedicine.org.

Examining the Benefit of At-Home Lung Cancer Treatment

The trial tests whether subcutaneous atezolizumab, a treatment for non-small cell lung cancer, can effectively be given at home with medical care provided primarily over telemedicine. Smartphone-enabled tools remotely monitor patient symptoms and physical functioning without the need for in-person visits.

Conventional cancer care often requires patients to navigate recurring in-person visits, multiple providers and complex treatment plans. The trial aims to identify a new approach to ease these burdens and potentially drive changes for patients with otherwise limited access.

What should patients expect?

Patients receive subcutaneous (under the skin) injections of atezolizumab every three weeks at home, with the aid of a mobile nursing provider. Early-stage lung cancer patients repeat this cycle for a year. Late-stage lung cancer patients continue for up to two years. Physicians chart patient progress via telemedicine appointments.

Who can participate?

Non-small cell lung cancer patients who are at least 18 years old and have ready access to Wi-Fi or cellular data

plans. Exclusion criteria and more information can be found at beta.clinicaltrials.gov/study/NCT05340309

Principal Investigator:

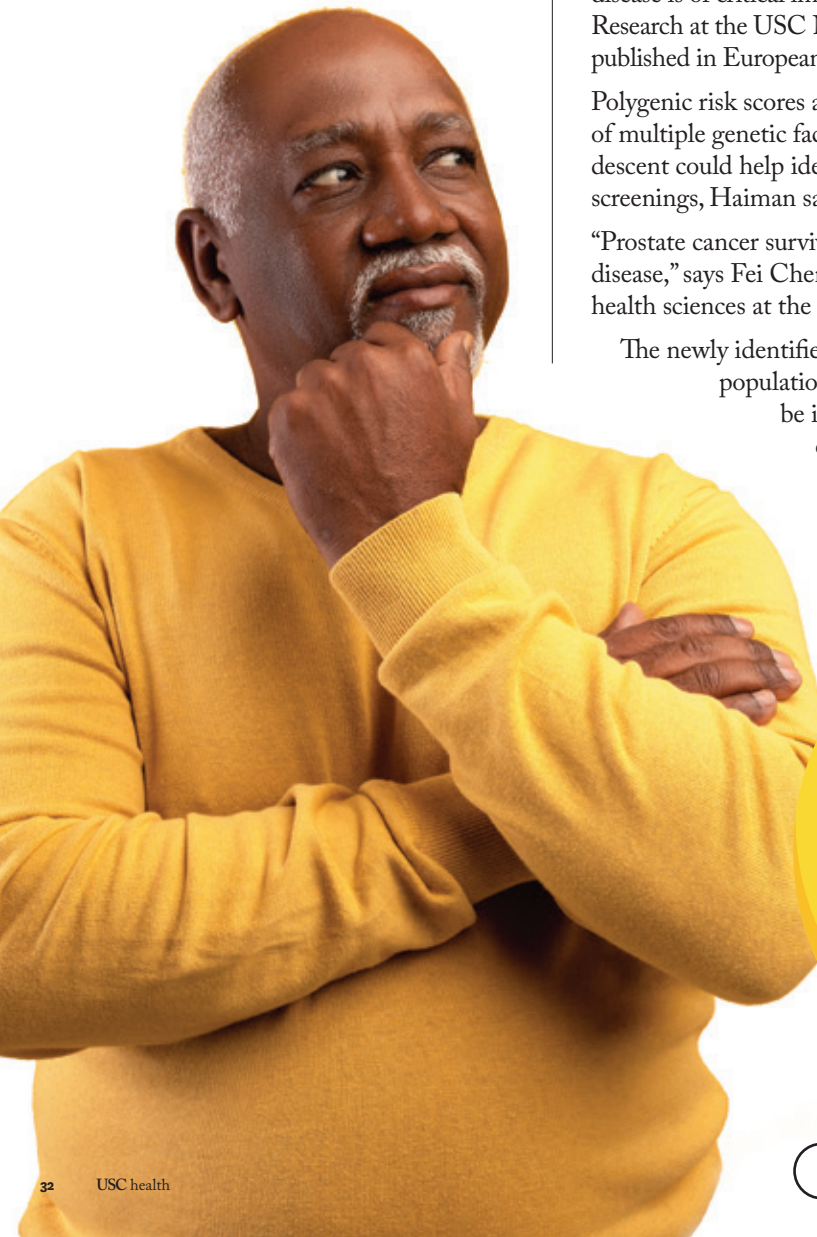
Jorge J. Nieva, MD

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Labwork

Why Are Black Men More Likely to Get Prostate Cancer?



Prostate cancer takes its greatest toll on Black men. Past studies have identified nearly 270 genetic variants linked to prostate cancer risk, but researchers have yet to determine why men of African ancestry are affected more often — or which men are more likely to develop aggressive forms of the disease.

Now, the largest-ever study of prostate cancer in men of African descent is addressing those questions.

A meta-analysis led by researchers at the Keck School of Medicine of USC has identified nine new genetic risk factors for prostate cancer — seven of which are found either largely or exclusively in men of African ancestry.

And, for the first time, Keck School researchers found that genetic differences can help determine which men are most likely to develop aggressive prostate cancer.

“The ability to differentiate between the risk for aggressive and nonaggressive forms of the disease is of critical importance,” says Christopher Haiman, ScD, AFLAC Chair in Cancer Research at the USC Norris Comprehensive Cancer Center and senior author of the study, published in *European Urology*. “Until now, risk scores haven’t been able to do that.”

Polygenic risk scores assess a person’s risk for a condition based on the combined influence of multiple genetic factors. Using new data to adjust these scores for men of African descent could help identify high-risk patients, prompting earlier and more frequent screenings, Haiman says.

“Prostate cancer survival is significantly lower among men diagnosed with aggressive disease,” says Fei Chen, PhD, an assistant professor of clinical population and public health sciences at the Keck School and the study’s first author.

The newly identified variants underscore the importance of including diverse populations in large-scale genetic studies, Dr. Chen says. And the findings can be incorporated into genetic tests for patients, says Haiman, who also co-leads the USC Norris Cancer Epidemiology Program and directs the Center for Genetic Epidemiology at the Keck School.

1 in 6

Black men will get prostate cancer in their lifetimes (compared to 1 in 8 men overall)

2X

Black men are twice as likely to die from prostate cancer

Source: American Cancer Society

1 in 3



Americans Face Greater Risk from Heavy Drinking

Heavy alcohol use may be dramatically more damaging to the liver for people with metabolic syndrome — a cluster of conditions that together raise the risk of coronary heart disease, diabetes, stroke and other serious health problems.

“Our research suggests that metabolic syndrome and alcohol interact in such a way that they multiply the effect of alcohol on the liver, more than doubling the risk of advanced liver disease among heavy drinkers,” says Brian P. Lee, MD, MAS, a hepatologist and liver transplant specialist with Keck Medicine of USC.

Dr. Lee believes that the increased risk of liver damage from drinking is a result of an increase in the amount of fat in the liver.

Metabolic syndrome is characterized by symptoms such as abdominal fat, high blood pressure, high cholesterol and high blood sugar. It affects more than 1 in 3 Americans.

For the study, published in the *Annals of Internal Medicine*, Keck Medicine researchers used data representing the population 20 years or older between 1999 and 2018.

Heavy alcohol use was defined as two drinks (a total of 12 fluid ounces) a day for women and three drinks (a total of 18 fluid ounces) per day for men.

Although the data revealed a slight increase in advanced liver disease with heavy alcohol use in those without metabolic syndrome, the greatest increase was found in individuals with combined heavy alcohol use and metabolic syndrome.

Dr. Lee believes that the increased risk of liver damage from drinking is a result of an increase in the amount of fat in the liver.

A healthy liver contains less than 5% fat; any more than that can lead to inflammation and cirrhosis (scarring) of the liver, liver cancer and liver failure.

Even ‘Safe’ Air Pollution Affects Brain Health

Levels of certain pollutants long considered safe by the Environmental Protection Agency are linked to changes in brain function over time, according to new research from the Keck School of Medicine of USC.

Children exposed to more pollutants showed changes in connectivity between various brain regions, the study found. In some areas, they had more connections than normal; in other areas, they had fewer.

“A deviation in any direction from a normal trajectory of brain development — whether brain networks are too connected or not connected enough — could be harmful down the line,” says Devyn L. Cotter, MSc, a doctoral candidate in neuroscience at the Keck School and first author of the study, which was published in the journal *Environment International*.

Communication between regions of the brain helps us navigate virtually every moment, from the way we absorb information about our surroundings to how we think and feel.

Many connections develop between ages 9 and 12.

“Air quality across America, even though ‘safe’ by EPA standards, is contributing to changes in brain networks during this critical time,” says Megan M. Herting, PhD, associate professor of population and public health

sciences at the Keck School and the study’s senior author.

The study, funded by the National Institutes of Health and the EPA, used brain scan data from more than 9,000 participants in the Adolescent Brain Cognitive Development study — the largest-ever nationwide study of youth brain health.

Keck School researchers used EPA and other data to map air quality at each child’s residence, including levels of fine particulate matter, nitrogen dioxide and ground-level ozone.

They then used advanced statistical tools to investigate how young brains develop differently when exposed to more pollution.

The findings could prompt regulators to consider brain health — in addition to lung and cardiometabolic health — when they set or adjust recommendations for air quality. Although the EPA proposed strengthening standards for fine particulate matter this year, guidelines for annual nitrogen dioxide have not changed since they were first set in 1971.



How Brain ‘Age’ and Stroke Outcomes Are Related

Having a younger brain age — a neuroimaging-based assessment of brain health — is associated with better post-stroke outcomes, according to a new study led by Keck School of Medicine of USC researchers.

“The health of your overall brain can protect you from the functional consequences of stroke,” says Sook-Lei Liew, PhD, of the Keck School’s Mark and Mary Stevens Neuroimaging and Informatics Institute.

Brain age is a biomarker that predicts chronological age based on structures such as regional thickness, surface area and volumes, and it is calculated using advanced machine learning.

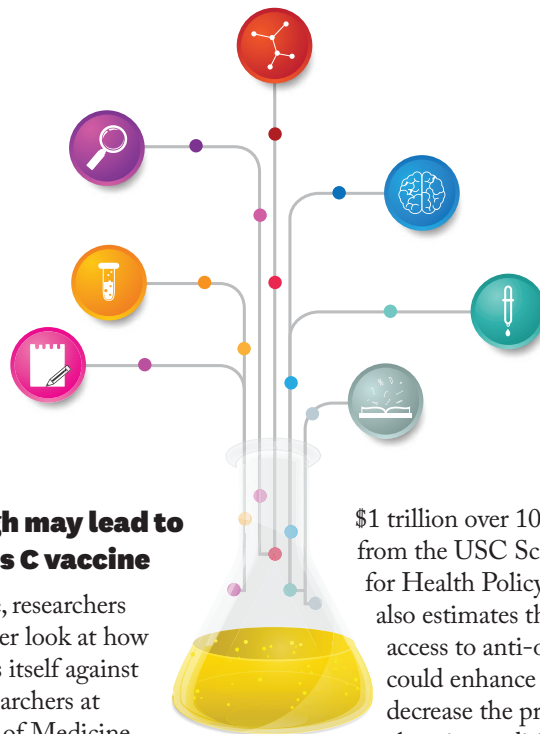
A higher brain age — calculated as a person’s predicted brain age minus their chronological age — suggests that the brain appears “older” than the person’s chronological age. Higher brain ages have already been associated with Alzheimer’s disease, depression, traumatic brain injury and more.

For the study, published in the journal *Neurology*, researchers focused on a specific measure of brain age that examines the biology of the nervous system through neuroimaging of the whole brain.

They also conducted an observational study using a multisite data set of 3D brain structural MRIs and clinical measures from a group of more than 100 experts focused on stroke recovery.

The findings could inform other novel approaches to stroke care. “This study ties brain aging to stroke outcomes, so any therapeutics developed to slow brain aging might also be helpful to improve outcomes after stroke,” Dr. Liew says.

Research Briefs



Breakthrough may lead to first hepatitis C vaccine

For the first time, researchers are getting a closer look at how the body defends itself against hepatitis C. Researchers at the Keck School of Medicine of USC used advanced technology to isolate and analyze cells that fight the virus. According to the study, published in *Frontiers in Virology*, the findings could help lead to the first vaccine for hepatitis C.

\$1 trillion over 10 years. The study from the USC Schaeffer Center for Health Policy and Economics also estimates that increasing access to anti-obesity treatments could enhance health equity and decrease the prevalence of several chronic conditions.

Racial disparities in peripheral artery disease treatment

A study from Keck Medicine of USC found that Black patients are nearly 50% less likely than white patients to receive vascular interventions for peripheral artery disease (PAD), putting them at higher risk of heart attack, stroke and amputation. Researchers used national data collected from 2016 to 2021, and they hope the results encourage more equitable treatment.

Biomarker may improve cancer treatment decisions

USC Norris Comprehensive Cancer Center researchers have discovered a biomarker that may lead to more effective cancer treatments and help avoid side effects. The biomarker, detectable with a blood test, indicates whether patients with non-small cell lung cancer will respond well to chemoimmunotherapy. The study is published in *Cancer Research Communications*.

Coverage of obesity drugs could lead to big savings

If laws allowed Medicare to cover weight loss medications, total health care spending in the U.S. could be reduced by

A new test to identify reasons for hearing loss

Otoacoustic emissions (or OAEs), soft sounds the ear produces as it listens, are used to evaluate hearing loss. A team at the USC Caruso Department of Otolaryngology – Head and Neck Surgery is exploring whether differences in OAEs can help identify underlying causes of hearing loss, which could improve diagnosis and treatment methods.

In It Together

Continued from Page 15

Ultimately, Candice gave birth to a healthy baby, her son Carter, without a C-section. She also avoided any other complications.

Growing family

After the positive outcome of her son's birth, Candice knew she had found the right care. So when she got pregnant again in 2022 at age 38, there was no question where she would go.

Candice and her husband welcomed their second child, Charli, at USC-VHH in January 2023. Once again, Dr. Mitchell and her team were there.

The couple got to know all four OB/GYNs in USC-VHH's practice throughout both pregnancies. The staff makes this effort for all moms-to-be so they will never feel like they're working with a stranger in case of emergency.

"Our expectations for the care we provide are high because our patients deserve that," Dr. Mitchell says.

Candice continues to enjoy life with her husband and kids, taking Carter for bike rides and attempting to get a full night's sleep when baby Charli allows.

Despite her busy schedule, she will always make time to see Dr. Mitchell.

"As long as I live in California, she'll be my doctor," Candice says. "Knowing I'm getting good care, I don't mind taking a drive."

For more information, call (800) USC-CARE or scan the QR code below



Brave Heart

Continued from Page 25

ruptured one of his four heart valves. Dr. Hindoyan then inserted stents to hold the arteries open to aid blood flow.

"Gary was not improving, so we put in a balloon pump, which goes from an artery in the leg to the main artery to help the heart pump more blood," Dr. Hindoyan says.

Gary was admitted to the intensive care unit at USC-AH, where he remained in critical but stable condition.

A growing network

The USC-AH emergency department, which cares for more than 47,000 patients per year, is a crucial resource for San Gabriel Valley residents.

It is now managed by the Department of Emergency Medicine at the Keck School of Medicine of USC, and it offers the expertise of 15 Keck Medicine emergency physicians.

About 20% of USC-AH emergency cases require inpatient care. And because the hospital has been affiliated with Keck Medicine since July 2022, the sickest individuals can be transferred to Keck Hospital of USC for specialized treatment within the same organization.

That was the case with Gary, who was sent to Keck Hospital two days later.

Doctors used extracorporeal membrane oxygenation (ECMO), a type of advanced life support for critically ill patients whose heart or lungs aren't working properly. The technology is "an exterior pump that can take blood, oxygenate it and return it back to the body — which Gary needed," Dr. Hindoyan says.

Keck Hospital was also where cardiothoracic surgeon Raymond Lee, MD, replaced the ruptured mitral valve in Gary's heart. Both of his kidneys had also failed, so Gary received dialysis there too.

After nearly a month in the Keck Hospital ICU, he received long-term care for another 26 days.

"I'm here today because of their skills. I can't give them enough thanks."

Gary Hood

Road to recovery

Since returning home in late April, Gary has received physical therapy, speech therapy, home health care and tai chi lessons.

"He's doing spectacularly now," Kat says. "He's no longer on dialysis, he's walking with a walker, he doesn't need a hospital bed and he's mentally alert."

Gary is grateful for regaining some independence — including being able to perform small household chores, handle personal hygiene, drive to appointments and even visit friends in Santa Barbara.

"I'm on the road to recovery," says Gary, who in August turned 78 and celebrated his 57th wedding anniversary. "You don't know how much family means until you're in a position like mine."

He credits the entire Keck Medicine care team for his journey.

"I understand how they feel when they save somebody," Gary says. "I'm here today because of their skills. I can't give them enough thanks."

For more information, call (800) USC-CARE or scan the QR code below



Trusted Care at Every Step

The days and weeks after a patient's hospitalization are critical. Wounds are healing, mobility is being restored and new medications and lifestyle choices are incorporated into daily life.

This period may also involve post-acute care, which refers to a range of services that include home health care with nurses and therapists, or temporary placement in a skilled nursing facility or an acute rehabilitation unit.

Selecting a post-acute care provider can be overwhelming and stressful.

As chief post-acute care officer at Keck Medicine of USC, I know how much this transition period can impact a person's long-term health. After all, the continuum of care for many patients — and their providers — goes beyond emergencies, surgeries or stays in the hospital.

This is why Keck Medicine's new Post-Acute Care Collaborative was created. We have identified a cohort of high-quality skilled nursing facilities and home health care agencies that meet our organization's high standards for care and clinical partnership.

Through a rigorous review of publicly available data on rate of hospital readmissions, clinical quality and patient satisfaction — along with a thorough vetting process of clinical capabilities — Keck Medicine has partnered with services that we can share with patients and families as they make their health care choices.

The collaboration also enables strong communication with a patient's existing Keck Medicine providers to deliver connected, team-based care beyond our own facilities.

Patients, of course, may always maintain the right to choose the option they feel is best.

We know that the future of health care will require continued innovation to provide seamless, high-quality care at every step of the way. Whatever their next steps are after they leave our hospitals, our patients remain our patients.

Felipe Osorno, MS, is the chief post-acute care officer and chief of staff for Keck Medicine of USC.



Felipe Osorno, MS



Keck Medicine of USC

HEALTH SYSTEM MARKETING
AND COMMUNICATIONS

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is
NOW!

GREATNESS. TOGETHER.

No matter what dreams you may have on the horizon, our expert health care team is here to partner with you to realize your potential. When you review your insurance options this Open Enrollment season, select a network that includes the award-winning care of Keck Medicine of USC. **Together we are limitless.**

Keck Hospital of USC
USC Arcadia Hospital
USC Care Medical Group
USC Norris Cancer Hospital
USC Verdugo Hills Hospital



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