UCLA Health | Healing humankind, one patient at a time

Vital Signs

WINTER 2025 | VOLUME 105

FEATURE STORIES

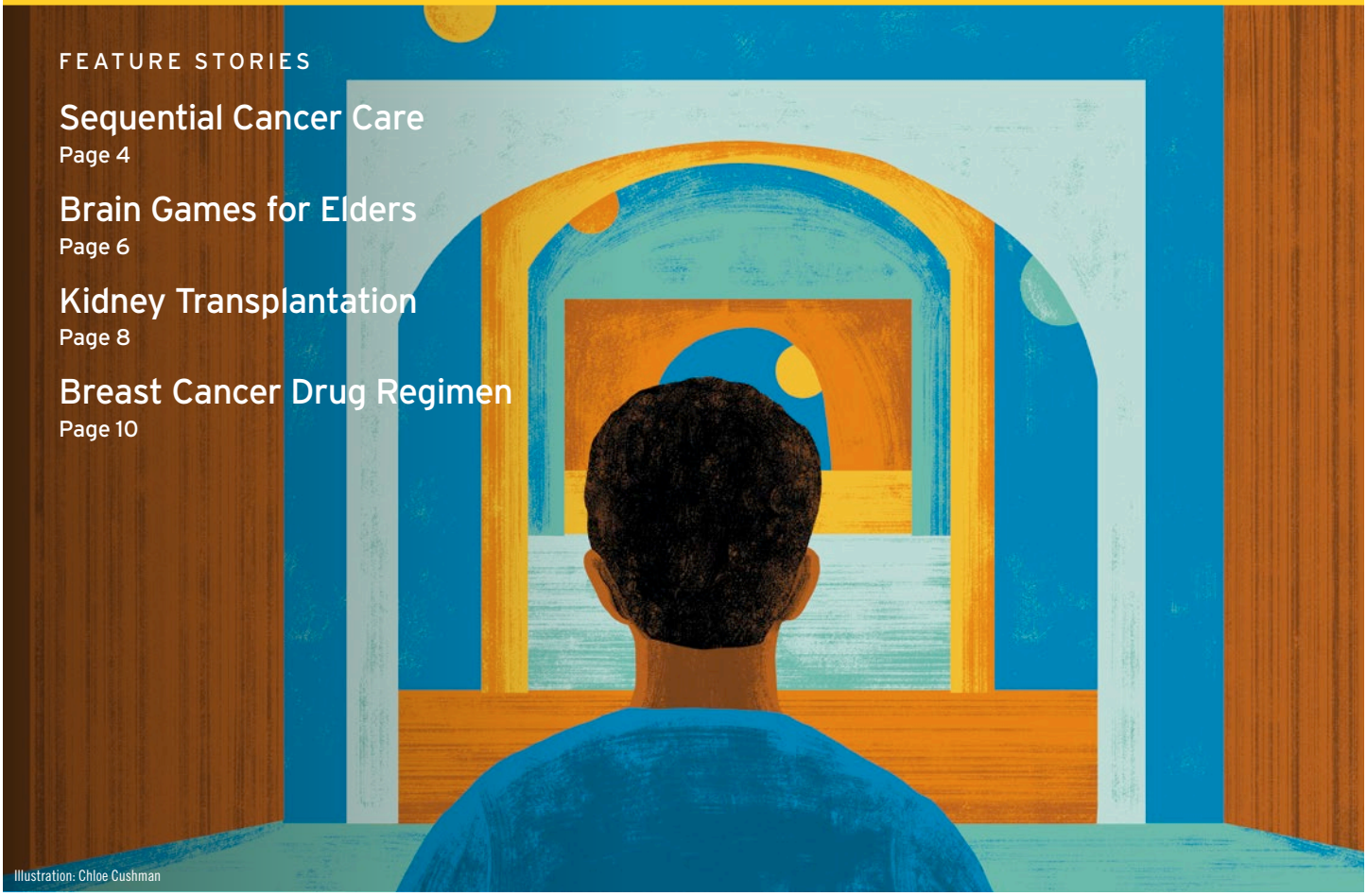

Illustration: Chloe Cushman

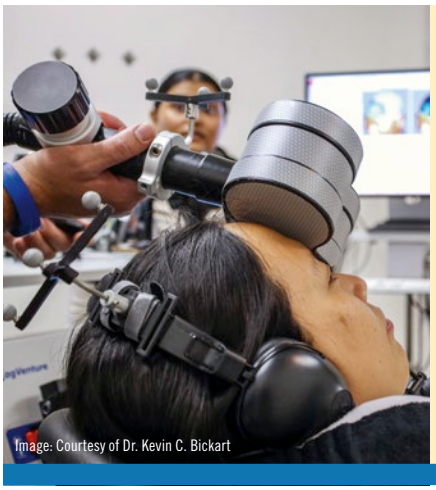

Image: Courtesy of Dr. Kevin C. Bickart

Can brain stimulation help those struggling to recover from a concussion?

A UCLA Health neurologist is testing personalized brain stimulation to reset a neural circuit that may be overactive in people who don't fully recover within weeks after a concussion. Maladaptation of the circuit, which can be seen on an MRI, may be preventing the brain from eliminating fears about returning fully to pre-injury levels of activity and resolving symptoms, says Kevin Bickart, MD, PhD. As a result, people avoid certain everyday activities that may trigger headaches, dizziness, sensitivity to light, brain fog, and depression or anxiety.

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Illustration: Chloe Cushman

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Adult Asthma Program now open in Thousand Oaks

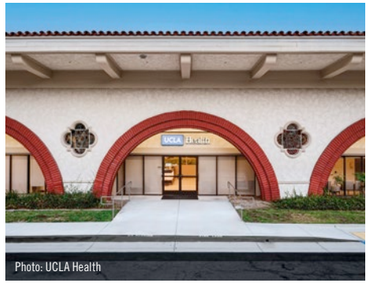


Photo: UCLA Health

Asthma is one of the most common chronic diseases, and for patients in the Conejo Valley and surrounding areas managing the condition has become more convenient with UCLA Health's new Adult Asthma Program. The program is located within the Thousand Oaks Hampshire Primary & Specialty Care clinic. Run by an expert team of pulmonary-care specialists, this program offers specialized services to help adults breathe easier and live better.

For more information, scan the QR code or go to: uclahealth.org/medical-services/pulmonary/adult-asthma-care

UCLA Health opens orthopedic clinic in Santa Monica

UCLA Health has opened a walk-in orthopedic clinic in Santa Monica, where adults and children age 7 and up with new or recently sustained (within the past seven days) acute orthopedic injuries, such as fractures, pulled muscles and sprains, can receive specialized care without the wait times often associated with emergency department or immediate care visits. The new clinic, staffed by orthopedic and sports medicine physicians, is open weekdays from 11 a.m. to 7 p.m. Imaging, diagnostic tests and treatment, including casting and splinting, are performed onsite.

For information about the UCLA Health Orthopedic Santa Monica Walk-In Clinic, to make a same-day appointment or to utilize the "Save My Spot" feature, scan the QR code or go to: uclahealth.org/locations/orthopedic-walk-clinic

Doheny Eye Center UCLA in Pasadena is relocating


Photo: UCLA Health

By early 2025, Doheny Eye Center UCLA in Pasadena will begin serving patients at a new and improved location, 150 N. Orange Grove Blvd. The new facility will offer state-of-the-art equipment, enhanced comfort and improved accessibility, ensuring patients continue to receive the best care possible.

For more information, scan the QR code or go to: uclahealth.org/locations/doheny-eye-center-ucla-pasadena

New Directions in Interventional Pain Management

About 21% of Americans suffer from chronic pain. In addition to medications, injections, physical therapy and mind-body practices, pain management specialists use a variety of advanced interventional techniques to treat back and major joint pain. These minimally invasive procedures are used when a patient isn't a good candidate for surgery or doesn't want to have surgery. Sandra Sacks, MD, a UCLA Health cancer pain management specialist in Santa Monica, describes some of these techniques.

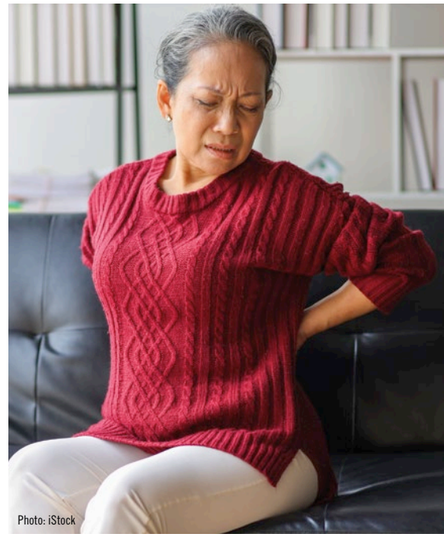


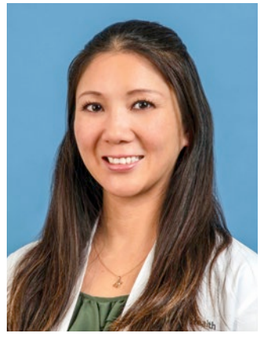
Photo: iStock

What are some of the newest interventional procedures for back pain?

Basivertebral nerve ablation helps patients with vertebrogenic back pain, which stems from damage to the vertebrae (bones of the spine). "This causes pain when they sit, stand, twist or transition from sitting to standing," Dr. Sacks says. "This technique, also called the Intracept procedure, uses heat to disrupt specific nerves. It's only applicable to patients with certain anatomical features that we can see on an MRI. Although it doesn't work for everyone, it's safe, effective and long-lasting, so it may prevent the need for a more invasive spine surgery."

Another procedure now covered by Medicare treats pain caused by lumbar stenosis, a narrowing of the space through which the spinal cord runs. Lumbar stenosis often manifests as pain radiating down the legs while standing and walking. "Narrowing caused by thickening of the ligaments in the spine can be treated with an outpatient procedure called MILD, or minimally invasive lumbar decompression. We use a small instrument about the diameter of a pen to remove some of the ligaments to create more space," Dr. Sacks says.

Pain management physicians also treat back pain with spinal cord stimulation. It involves implanting a pulse generator and small battery pack connected to electrodes placed on top of the covering of the spinal cord. The device produces mild electrical pulses, which disrupt the pain signals.


Dr. Sandra Sacks.
Photo: UCLA Health

What about knee pain?

Genicular radiofrequency ablation (RFA) helps certain patients with knee pain, including those who still have pain after knee surgery and those with severe arthritis who are no longer getting good pain relief from knee injections. "To confirm the pain stems from the genicular nerve, we first do a test block using a local anesthetic that only works for a few hours," Dr. Sacks says. "If the nerve block provides temporary, but significant relief, we proceed with the RFA, using radio frequency waves to heat and disrupt the pain signals for a period of time. The relief usually lasts 18 months to two years, after which the procedure can be repeated, if necessary."

Are there other techniques you'd like to mention?

"I treat patients with cancer who have pain," Dr. Sacks says. "People who have had chemotherapy often suffer from peripheral neuropathy, which causes pain in the lower extremities and feet. For some patients, it can feel like stepping on glass shards. We may treat them with peripheral nerve stimulation (PNS) or spinal cord stimulation (SCS). Similar to spinal cord stimulation, PNS involves placing leads, but next to a peripheral nerve instead of the patient's spine, so the electrical impulses will block the pain signals."

Patients with chronic pain should know that pain management specialists have an arsenal of tools to reduce their reliance on medications, especially opioid therapies given the potential risk factors related to opioids in chronic pain conditions, including dependence and tolerance, Dr. Sacks says. "Even if we can't completely eliminate pain, our goal is to turn down the volume to help them do things they couldn't do before, so they can enjoy a better quality of life," she says.

To find a UCLA Health location near you, scan the QR code or go to:
maps.uclahealth.org

Sequential Care Opens a New Era in Cancer Therapy

New therapies targeting cancers are being developed at a record pace, causing a seismic shift in the landscape of cancer treatment. In this rapidly changing environment, if a specific drug is not working for a patient, or when a treatment ceases to be effective, newly developed alternatives are often already available.

Doctors can now move patients from one drug to another, and sometimes several more, each time extending their lives. This type of "sequential" therapy is improving survival rates, even for some people living with metastatic cancer. As a result, rather than a possibly fatal illness, some types of cancer are on the cusp of becoming a manageable chronic disease.

"The evolution of cancer medicine is dramatic," says Richard S. Finn, MD, medical director of the Clinical Research Unit at the UCLA Health Jonsson Comprehensive Cancer Center. "Before the '90s it was dismal, with very few drugs that often weren't all that effective. Now, when a patient becomes resistant to a therapy, there are often follow-up therapies that will work. The evolution of cancer care had been incremental for many decades. Now, it has just snowballed."

The history of targeted cancer therapies has evolved from drugs that interfere with the growth of cancer cells to increasing understanding of cancer at a genetic level, leading to development of drugs able to act on specific molecular targets. In the 1990s, breakthroughs in gene-sequencing technologies further revolutionized cancer research.

"Being able to ask what makes a cancer cell behave the way that it does, and to cause the illness that it does, is what really opened the door for the opportunity of targeted therapy," says Dennis J. Slamon, MD, PhD, director of clinical and translational research at the UCLA Health Jonsson Comprehensive Cancer Center. "On top of that, we've learned a lot about the molecular control of the immune system, and about harnessing immune-based therapies to treat cancer."

Just like chemotherapy and radiation, targeted cancer therapies can cause side effects that range from mild to quite severe. That makes the order in which therapies are administered during a course of treatment as important as the drugs themselves. "There are so many complexities involved when you're planning a sequence of cancer therapy. It's not just about the efficacy of a drug; it's also about the toxicity and tailoring the order of the treatment to the individual patient," says John M. Timmerman, MD, a member of the UCLA Health Jonsson Comprehensive Cancer Center and a specialist in the blood cancer lymphoma. "Some patients may have a low blood count; some patients may already have pre-existing neuropathy. So, we have to look at everything as we decide on a course of treatment, like the side-effect profile of the drug and its efficacy."

The history of targeted cancer therapies has evolved from drugs that interfere with the growth of cancer cells to increasing understanding of cancer at a genetic level, leading to development of drugs able to act on specific molecular targets.

Acquired drug resistance, which occurs due to cancer cells' constant mutation, continues to be a challenge. But thanks to the swift pace of targeted drug development, patients are often able to switch to new and emerging drugs, which allows them to continue to fight the disease.

Cost — and access to large, top-tier medical centers — remains a barrier to leading-edge cancer care. A single infusion of some therapies can be in the neighborhood of $450,000. Enrolling in clinical trials is an important option to receive such care. The first step before a patient can join a clinical trial is to complete a consent form, which is often complex and can run 20-to-30 pages.

"When we're running our clinical trials at UCLA, we're regularly consenting into many different languages," says thoracic oncologist Amy L. Cummings, MD, PhD, director of the Justice, Equity, Diversity and Inclusion Program at the UCLA Health Jonsson Comprehensive Cancer Center. "We're starting to think very carefully about how we can address the barriers to care in a systematic way to start making this level of care available for everybody."

Another component to expanding the availability of treatment is letting people know that clinical trials are available. "We are working to embed our clinical trial experts in the wider community" — community clinics, hospitals and safety-net facilities — "and to expand the opportunity for more people to benefit from the research we are conducting," Dr. Cummings says. "I think it's most powerful when it comes from the traditional cultural meeting places that people trust, like churches and barbershops and nail salons.

"Cancer is a journey," she adds, "and the treatment can't be piecemeal. We are working to create a pathway, start to finish, that is available to as many people as possible."

For more information about the UCLA Health Jonsson Comprehensive Cancer Center and to learn about and enroll in clinical trials, scan the QR code or go to:
www.uclahealth.org/cancer

Illustration: Chloe Cushman

Older adults can benefit from brain games to boost memory

At some point, most people notice the effects of aging on their brains. Memory may become less reliable, and multitasking may not be as easy as it once was. While your brain is not a muscle, experts say that exercising it may help delay the cognitive decline that naturally comes with healthy aging, and finding ways to stimulate your brain can help it stay sharper for longer.

"Any activity that requires attention, focus and engagement challenges the brain," says Grace I. Chen, MD, clinical chief of the UCLA Health Division of Geriatric Medicine. "Now, as we continue to learn more about dementia and Alzheimer's disease, people are turning to brain-training games for help."

Playing games at any age can boost confidence, leave you with a sense of accomplishment and provide an opportunity to socialize. But for older adults, some games are better for boosting brain power and preventing cognitive decline, notes UCLA Health neurologist Adam J. Darby, MD.

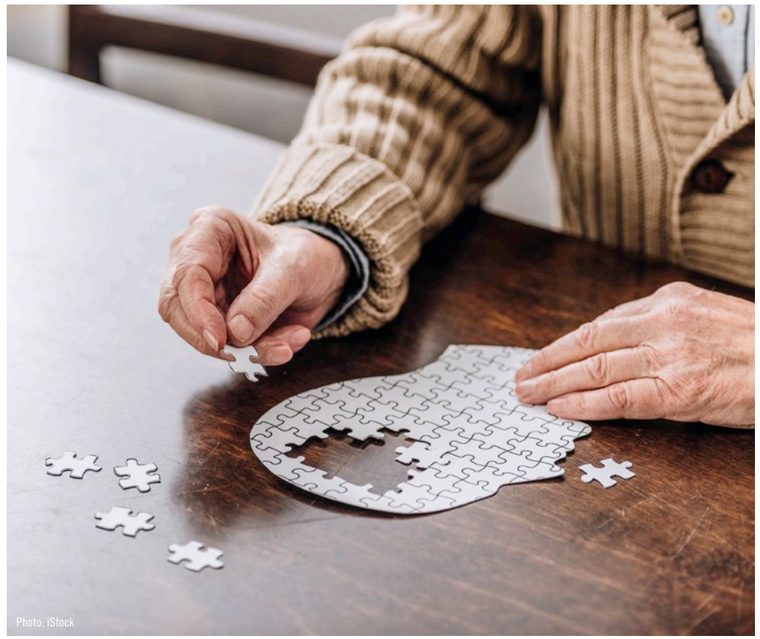


Photo: iStock

When most people think of brain games, they're likely picturing phone apps and websites offering brain-training exercises. Conclusive evidence about the effects of those games is limited — many of the studies are small and track different cognitive functions. But a review published in 2020 of studies on brain games offers some general findings. It reports that for people older than 60 who do not have cognitive decline, computerized brain games may benefit such areas as executive function (the ability to plan, focus your attention and juggle multiple tasks), processing speed (how quickly your brain receives, understands and responds to information), verbal memory (how well you remember information you hear) and working memory (the ability to hold and recall information, such as a shopping list or phone number, temporarily).

While these are clear benefits, this research couldn't answer the questions about how often someone should play to gain benefit, how long they should play games or how long can one expect cognitive benefits to last.

The takeaway? "Used properly, computerized brain games certainly can't hurt, and they potentially can improve brain performance and, therefore, may offer further protection against some cognitive decline," says Dr. Darby, who created a free brain-performance-enhancement app, Aratrain, that combines cognitive challenges with physical training. The app is available from the Apple and Android app stores.

Dr. Chen recommends that the greatest benefit comes from varying the types of games you play. "Just be sure to limit screen time, especially close to bedtime. Exposure to blue light at night can disrupt your natural sleep cycle. Straining your eyes to see the screen at any time of day can lead to dry eye, blurry vision and headaches," she says.

Crossword puzzles also are a good option and are among the most studied thinking games, especially for their effect on aging brains.

Playing games at any age can boost confidence, leave you with a sense of accomplishment and provide an opportunity to socialize.

Experts have suggested for more than a decade that doing crossword puzzles later in life may delay the onset of memory decline. One study reported that regular use of crossword puzzles held off memory decline by 2 ½ years. For people 50 and older, how often you complete crossword puzzles may be directly related to your cognitive function. "The more you do them, the greater the impact on your focus and attention," Dr. Darby says.

Even if you already notice mild cognitive impairment, crossword puzzles may help — and it doesn't matter whether you complete your crossword puzzle with a pencil or on your phone. Research shows that people older than 55 with mild cognitive impairment may see more cognitive effects from digital crosswords than from playing other computerized cognitive games.

For those who enjoy numbers, puzzles such as Sudoku may have a similar impact as crossword puzzles on cognitive function. A large study of almost 20,000 people age 50 and older found that brain function directly correlated with how often they did number puzzles. "Doing number puzzles more than once a day may even put your cognitive performance at the same level as people eight years younger," Dr. Chen says.

Finally, video games offer another way for older adults to bolster their brain health. Three-dimensional games, which provide exposure to stimulating 3D environments that allow for spatial exploration and work the part of the brain you use to navigate your everyday environment, are especially beneficial, says Dr. Darby, a physician in the UCLA Steve Tisch BrainSPORT Program.

In research employing both 3D and 2D games, it was found that the 3D game continued to improve cognition when playing continued beyond the first two weeks, while the effects of the 2D game plateaued.

Brain training alone is not enough to protect your aging brain, both Dr. Chen and Dr. Darby note. To best protect memory and cognitive function, combine a variety of brain games with regular exercise, a healthy diet and quality sleep.

To learn about more ways to protect the aging brain, speak with your primary care physician. To find a UCLA Health primary care location near you, scan the QR code or go to: www.uclahealth.org/locations/search

Continued from cover

Can brain stimulation help those struggling to recover from a concussion?

"It is important as a public health concern to lessen the burden and cost of chronic concussion symptoms," says Dr. Bickart, a physician in the UCLA Steve Tisch BrainSPORT Program. "It's been hard to even diagnose, let alone find targets for treatment of this condition."

Dr. Bickart is currently recruiting patients to participate in the study, which targets the circuit through noninvasive brain stimulation. Participants play a personal role in the research by discussing how their symptoms could interfere with their daily lives, hopes and dreams. Participants imagine the details of their injury and the lingering symptoms or listen to recordings of themselves discussing these details several times throughout the study. This alone may serve as a form of exposure that helps neutralize symptoms. "My hope is that when combining stimulation with the exposure, participants will re-engage more fully in the activities they enjoy most, and in their lives overall," Dr. Bickart says.

For the study, researchers administer four-minute courses of a magnetic pulse, called transcranial magnetic stimulation, or TMS, over a four-week protocol of 10 sessions, followed by follow-up MRIs to monitor effects on the brain. Some participants receive a placebo, or sham, stimulation. TMS can activate or inhibit nerve cells and larger circuits in the brain and has been approved by the U.S. Food and Drug Administration for tinnitus, some psychiatric conditions and certain types of migraine headaches.

The treatment could potentially help the 30%-to-50% of people who still have debilitating symptoms more than three months after a concussion, despite no observable injury on a brain scan, Dr. Bickart says.

One potential cause of lasting symptoms could be a phenomenon known as fear avoidance behavior, where people refrain from activities or situations that could trigger symptoms. Avoiding exercise, using a computer or going outside into bright sunlight can be protective in the short run. "In the long run, it can actually cause intolerance, sensitivities and deconditioning," Dr. Bickart says. "Ultimately, avoidance seems to worsen symptoms and even bring about new symptoms for some people."

The study is testing that theory by using TMS to modify and reset the brain circuit that may have become overactive and oversensitive after the concussion. The study uses brain mapping to target a personalized circuit in each patient. This type of brain stimulation may enhance coping ability, Dr. Bickart says.

Sedation is not required during the brain stimulation. Participants may feel a buzzing sensation and muscle contractions in their forehead or eyebrow. They can view the same images of their brain on tablets that the researchers are using to position the stimulation coil for the treatment.

Dr. Bickart said he is hopeful the research can result in better treatment and outcomes, noting that there currently is no FDA-approved therapy for a concussion." The trial is open to people 18 to 65 who experienced a concussion or mild traumatic brain injury within the last three-to-24 months and have lingering symptoms.

For information about and to enroll in the study, scan the QR code or go to: eastonad.ucla.edu/research/clinical-studies/interventional-studies/brain-trial

Andrew Macias (right) is the first patient to benefit from transplant tolerance surgery at UCLA, in 2021, receiving a new kidney from his brother, Tom (left). That first surgery has led to further advances, including delayed tolerance transplantation for patients who have previously received a donated kidney.
Photo: Adam Amengual

New direction in kidney transplants aims to free recipients from medication-dependence years after surgery

"UCLA is the first medical center to offer a procedure in which patients who have previously been given a kidney receive an infusion of stem cells from their donor, months or years after the transplant."

Kidney transplantation is considered one of the miracles of modern medicine, enabling recipients to live longer, healthier lives, free from dialysis. But it's not without a significant downside: In order to prevent the recipient's immune system from recognizing the new organ as foreign and attacking it, these individuals require powerful immunosuppressant drugs for the life of the transplanted kidney. In addition to side effects and the increased risks associated with a weakened immune system, the toxicity of these medications can ultimately cause the kidney to fail. An ongoing clinical trial at UCLA Health is pursuing what has long been viewed as the Holy Grail by transplant clinicians. UCLA is the first medical center to offer a procedure in which patients who have previously been given a kidney receive an infusion of stem cells from their donor, months or years after the transplant. The approach, which is initially being tested only for transplants within the last five years involving well-matched siblings, aims to achieve "delayed tolerance," which would allow the kidney recipient freedom from immunosuppressant medications. Jeffrey Veale, MD, director of the UCLA Kidney Transplantation Exchange Program and the surgeon overseeing the clinical trial, discusses this new direction in kidney transplant care.

What is meant by "delayed tolerance?" And how is this procedure designed to achieve it?

In the context of organ transplantation, tolerance means that the body doesn't react to substances that would usually cause an immune response. Our immune system is set up to react to any foreign proteins and kick them out. A transplanted kidney will trigger that process, which is why transplant recipients need immunosuppression drugs. What we're doing is infusing blood stem cells from the original organ donor into the bone marrow of the transplant recipient to help them produce the donor's white blood cells so the immune system recognizes the donor kidney as "self" — something called chimerism. In a sense, from the standpoint of the immune system, this turns the recipient into the donor. We've achieved this when done simultaneously with the transplant procedure, but now we are the first to do this months or even years afterward, which is a big stride.

While transplants can extend and dramatically improve lives, you have said that more needs to be done to address the effects of the anti-rejection medications.

That's right. There was a very good column in *The New York Times* a couples of years ago in which a heart recipient wrote about the gratitude paradox — where you're expected to be grateful you got life from the transplant, which makes it hard to complain about these side effects. Immunosuppression medications haven't significantly changed in 40 years. Our field needs to do better. We have to be more innovative.

What specifically are the downsides to the immunosuppressants?

Many of these drugs are powerful steroids, and no on likes to be on those long term. They can be associated with things like weight gain, acne, fatigue and fluid retention. But more than that, the suppressed immune system makes you susceptible to infections and less able to fight them off. It increases the risk of skin cancer, diabetes and heart disease. And, ironically, the same medications you use so you don't reject your kidney are also toxic to the kidney. They cause vasoconstriction in the arteries of the kidney transplant, eventually choking it out — typically after 15-to-20 years.

If kidney transplant recipients can reach the point of achieving tolerance and, thus, no longer need immunosuppressant medication, would the transplanted organ be expected to last their lifetime?

Tolerance is such a new field that we don't have the long-term results to be able to say that definitively, but that is the potential. And if we can achieve that, the benefits go beyond that individual. Due to the shortage of organ donors, there is a waiting list to receive a kidney, and currently 17% of that list consists of people who need a second, third or fourth transplant. If patients no longer are rejecting their transplanted kidney, they won't be bouncing back to the waiting list, and those who are looking for their first will move up the queue.

Dr. Jeffrey Veale.
Photo: Adam Amengual

Is there reason to be encouraged so far?

We've now done this, in delayed fashion, on four patients, two of them nearly five years after the original transplant from their matched sibling. The first two patients are completely off all immune suppression. They had felt much better after their initial transplant, but now, for the first time in many years, they're off both dialysis and immunosuppression drugs, and it's another thousand-percent improvement.

If this clinical trial proves successful, could people who had a kidney transplant from someone who wasn't a sibling also benefit from this approach?

If we show success with well-matched siblings, the next step would be to gradually begin offering it to other well-matched relatives. The better the match, the more likely delayed tolerance will be successful.

For more information about the UCLA Health tolerance transplant program, scan the QR code or go to: ucla.in/tolerance-transplant

New drug regimen helps reduce risk of recurrence for patients with early-stage breast cancer

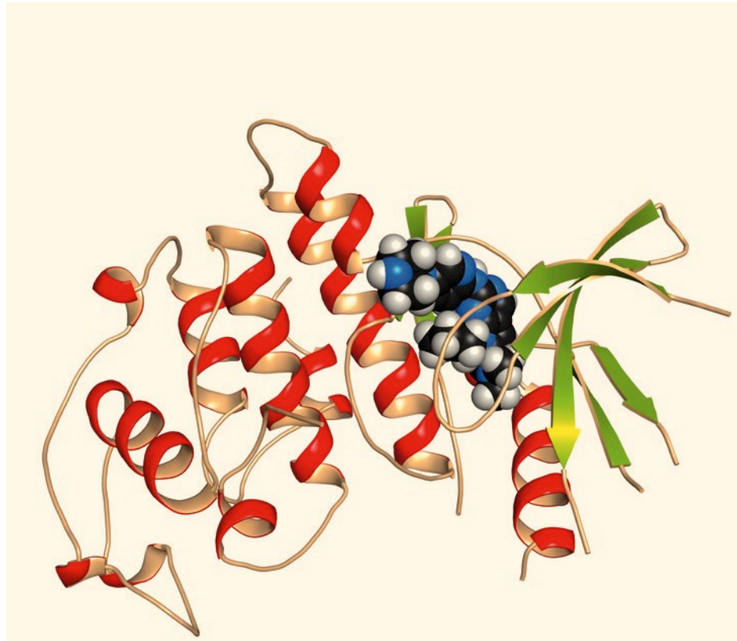


Illustration: molekuul.be/Alamy Stock Photo

The Food and Drug Administration (FDA) has approved a combination therapy that can help to reduce the risk of recurrence for patients with HR-positive, HER2-negative early-stage breast cancer, which accounts for nearly 70% of breast cancer cases in the United States.

The treatment, using the targeted-therapy drug ribociclib in combination with conventional hormonal therapy, is a significant step forward, UCLA Health cancer experts say. It was approved by the FDA in September 2024.

"This changes how we evaluate and treat patients," says Dennis Slamon, MD, PhD, director of clinical and translational research at the UCLA Health Jonsson Comprehensive Cancer Center. "This is a new option that we can now offer patients that can help further minimize their risk of cancer returning."

Dr. Slamon was involved in the foundational research that led to FDA approval of ribociclip and other related drugs to treat advanced metastatic breast cancer by blocking the activity of enzymes that promote cell division and cancer growth. Now it has been approved for use in combination with other therapies to treat breast cancer at an earlier stage.

Prior to this, treatment has included endocrine therapy — which blocks or lowers the levels of estrogen production so cancer cells can't use it to grow and spread — but there is still a risk of the cancer coming back years later after the initial diagnosis. For patients with stage 2 disease, there is a 27%-to-37% risk of the cancer returning, and for stage 3 disease there's a 46%-to-57% chance of the cancer coming back.

"Endocrine therapy alone has saved countless lives, yet some patients still experience a recurrence of stage 4 disease," says Rena Callahan, MD, a UCLA Health oncologist and investigator in the UCLA Health Jonsson Comprehensive Cancer Center. "These recurrences are both devastating and often life-limiting. While ribociclib was already known to extend survival in advanced cases, its potential to prevent recurrence in early-stage breast cancer offers hope for curing many more patients."

Approval of ribociclib for treatment of early-stage disease followed an international clinical trial, called NATALEE, for which Dr. Slamon was the principal investigator. Participants were randomly assigned to either receive ribociclib plus endocrine therapy, consisting of a nonsteroidal aromatase inhibitor, or to receive endocrine therapy alone. Results of the study were published in March 2024 and showed that the addition of ribociclib with endocrine therapy significantly extended the time a person with stage 2 or 3 HR-positive, HER2-negative early breast cancer lives without the cancer returning.

"We found that adding ribociclib to the standard hormone therapy resulted in a relative reduction in the recurrence rate by as much as 25%," Dr. Slamon says. "And that's huge for this the group of patients, who make up a majority of breast cancer cases."

The study also examined what is called distant disease-free survival — the percentage of patients who are alive and free of metastases at a specific time after diagnosis — and recurrence-free survival. These findings also favored treatment with ribociclib and endocrine therapy. The distant-free survival rates were 90.8% for the combination arm, compared to 88.6% for endocrine therapy alone. Patients on the combination had a 91.7% recurrence-free survival compared to 88.6% for endocrine therapy alone. The side effects were similar in both groups, with the most common issues being neutropenia, arthralgia and liver-related events.

For more information about breast cancer care at UCLA Health, scan the QR code or go to: www.uclahealth.org/cancer/cancer-services/breast-cancer

ASK THE DOCTORS

Honey helps your gut while sweetening your yogurt

"Ask the Doctors" is a nationally syndicated column written by Eve Glazier, MD, president of the UCLA Health Faculty Practice Group, and Elizabeth Ko, MD, medical director of the UCLA Health Integrative Medicine Collaborative.

Drs. Elizabeth Ko and Eve Glazier.
Photo: Juliane Backman

DEAR DOCTORS: I just read that adding honey to yogurt is good for your gut microbiome. Is that true? I avoid added sugar, so I buy plain yogurt and have it with fresh berries. But I'm eating the yogurt to support my gut microbiome. How does the honey help? How much do you need?

DEAR READER: When you eat yogurt, which is a live culture, you're adding to the diversity of the vast and complex communities of bacteria, yeasts and fungi that make their home in our intestines. It's a smart move because these trillions of microbes, now collectively referred to as the gut microbiome, play key roles in our physical, mental and emotional well-being.

To reach the gut alive, microorganisms must survive a trio of hostile environments — the mouth, stomach and intestines. Each is equipped with enzymes that aid in the digestion and absorption of nutrients. However, these same enzymes, particularly those in the stomach and intestines, reduce the viability of the live bacteria contained in yogurt. This led researchers at the University of Illinois to wonder if honey, which is often paired with yogurt in the Mediterranean diet, might have a protective effect.

Illustration: Maitreyee Kalaskar

In the first of three studies, the researchers recreated the chemical composition of saliva, stomach acid and intestinal bile in a series of petri dishes. They then simulated the digestion of B. animalis, which is the microbe contained in yogurt. They found that the addition of honey had a significant protective effect on the yogurt microbe during the intestinal phase of digestion. Of the four types of honey they tested — clover, buckwheat, orange blossom and alfalfa — clover honey had the best outcome.

The next step was to test these results in a real-world setting. A group of 66 healthy adults was asked to eat one serving of commercial-grade yogurt mixed with 21 grams (about one tablespoon) of clover honey each day for two weeks. After a month off to clear their systems, they were then asked to eat a serving of plain yogurt each day for two weeks. Analysis of stool samples showed the clover honey had the same protective effect on the beneficial bacteria in the yogurt that had been observed in the laboratory experiment. A small third study found that the addition of sugar to the servings of yogurt did not protect the bacteria from being degraded by the digestive enzymes.

The researchers had also asked the study participants to track their bowel movements and to fill out questionnaires about their mood, cognition and general sense of well-being. The responses revealed that the enhanced survival of B. animalis during digestion did not translate into improvements in mood, cognition or general health. However, four weeks may be too short a period of time for those types of improvements to become evident.

The takeaway here is that, yes, it appears that honey can help the bacteria in yogurt reach their destination in the large intestine. But honey is an added sugar, which must also be taken into account.

To Ask the Doctors, e-mail:
askthedoctors@mednet.ucla.edu

Community Health Programs

FEBRUARY / MARCH / APRIL / 2025 COMMUNITY CALENDAR EVENTS

UCLA Health offers community programs and events to help our neighbors lead healthier lives through wellness education. Go to uclahealth.org/events for more information.

CARE PLANNING

Advance Care Planning
Advance care planning is a gift you give your loved ones who might otherwise struggle to make choices about your care in the event you are unable to. This session provides an introduction to care planning.
When: Wednesdays, Feb. 26, Mar. 19, Apr. 23, May 21, 6 – 7 pm
Where: Teleconference sessions
Register: ACP@mednet.ucla.edu

DIABETES

Living with Type 2 Diabetes (monthly)
These ADA-certified self-care classes will help you gain important skills, knowledge and confidence to successfully manage your diabetes. Sessions will cover risk reduction, nutrition, medications and being active.
When: Thursdays through May, 10:30 am – noon
Where: Teleconference sessions
Info & registration: diabeteseducation@mednet.ucla.edu

Integrative Approaches to Diabetes
Are you interested in managing your diabetes more holistically? Integrative medicine blends conventional treatments with mind-body-spirit and lifestyle approaches to improve diabetes and blood sugar control. Dr. Rashmi Mullur, a board-certified physician in endocrinology and integrative medicine, will teach you integrative approaches and mind-body techniques to better manage your health.
When: Tuesdays through May, 10 am – noon
Where: Teleconference sessions
Info & registration: 310-828-1050 or diabeteseducation@mednet.ucla.edu

HEALTH EMERGENCIES

Save-a-Life Workshop
Learn how to save a life! Learn the signs and symptoms of common emergencies like choking, heart attack, stroke and allergic reactions. Lifesaving skills like hands-only CPR, stopping severe bleeding and calling 9-1-1 — what to know, say and do — will all be covered.
When: Tuesday, Apr. 8, noon – 1 pm
Where: Teleconference session
RSVP: cpc.mednet.ucla.edu/save-a-life

KIDNEY DISEASE

Your Kidneys, Your Health: A Live Q&A
Hosted by Dr. Ira Kurtz, Distinguished Professor and Chief of the Division of Nephrology at UCLA. Join us for an interactive monthly Q&A session where renowned kidney expert Dr. Ira Kurtz answers your pressing questions about all things kidney-related. Whether you're curious about the causes and prevention of acute or chronic kidney disease, medications and treatments that can protect or harm your kidneys, or the latest advancements in kidney care and cutting-edge treatment options, Dr. Kurtz will provide clear, insightful answers to empower you with knowledge about kidney health. Get expert guidance from a leading authority in nephrology.
When: Thursdays, Feb. 20, Mar. 20, Apr. 24, May 22, 5 – 5:45 pm
Where: Teleconference sessions
RSVP: 310-206-6741 or NephrologyAdmin@mednet.ucla.edu

Chat with Dr. Anjay Rastogi and CORE Kidney Team
Professor and Clinical Chief of Nephrology and Director of CORE Kidney Program, Anjay Rastogi, MD, PhD, and Circle of CORE, a patient advocacy and support group, will discuss a wide variety of topics related to kidney health, including prevention, diagnosis, management, nutrition, exercise, mental health, dialysis, transplantation and kidney-friendly life choices. Other health care providers, including dietitians and psychologists, will join the session. The sessions are interactive, with an opportunity to ask questions during the event. You can also send your questions in advance to COREKidney@mednet.ucla.edu.
When: Saturday, Mar. 1, Tuesday, Apr. 1, Thursday, May 1, 5 – 6 pm
Where: Teleconference session
RSVP: tinyurl.com/rastogi-chat

MULTIPLE SCLEROSIS

REACH to Achieve Program (ongoing)
This weekly wellness program focuses on fitness, memory, emotional well-being, recreation, nutrition and health education for individuals living with MS.
Where: Marilyn Hilton MS Achievement Center
Info & application: 310-267-4071

Beyond Diagnosis
This is an evening program for those newly diagnosed with MS. Join MS professionals from the Marilyn Hilton MS Achievement Center at UCLA and the National MS Society to discuss MS and wellness practices to improve your life with MS.
When: Monday, Mar. 3, 6 – 8 pm
Where: Teleconference sessions
Info & application: 310-267-4071

Cognifitness
A four-week program for those with MS who are experiencing mild cognitive problems. Learn strategies to improve concentration, memory, organization, problem-solving and critical-thinking skills.
When: Saturdays in March, 10 am – noon
Where: Teleconference sessions
Info & application: 310-267-4071

Living Well with MS
This 12-week program helps those newly diagnosed with MS better understand MS and develop fitness and lifestyle practices to manage symptoms and enhance well-being.
When: Starting in March
Where: Teleconference sessions
Info & application: 310-267-4071

PODIATRY

Heel and Ankle Pain
Gary Briskin, DPM, will discuss common causes of heel and ankle pain, as well as surgical and nonsurgical therapies.
When: Tuesdays, Feb 18, May 20, 5:45 – 6:45 pm
Where: Teleconference session
RSVP: 310-828-0011 to receive Zoom invitation

Bunions and Bunion Surgery
Bob Baravarian, DPM, will discuss bunions and the latest surgical and nonsurgical treatments.
When: Tuesday, Mar. 18, 5:45 – 6:45 pm
Where: Teleconference session
RSVP: 310-828-0011 to receive Zoom invitation

Ankle Arthritis and Ankle Replacement
Bob Baravarian, DPM, will discuss the latest advances in treating foot and ankle arthritis, including injection joint lubrication, arthroscopic cleanup, joint-preservation surgery, fusion surgery and ankle-replacement surgery.
When: Tuesday, Apr. 15, 5:45 – 6:45 pm
Where: Teleconference session
RSVP: 310-828-0011 to receive Zoom invitation

CLINICAL TRIALS

UCLA conducts research for a wide range of medical disorders. In addition to expanding scientific knowledge, developing new diagnostic techniques and introducing new treatment options, these trials can give qualified patients access to therapies that are not yet available to the general public. Below are just a few of the trials actively recruiting study participants. For more information on these trials and a more complete list of UCLA clinical trials, please visit uclahealth.org/clinical-trials.

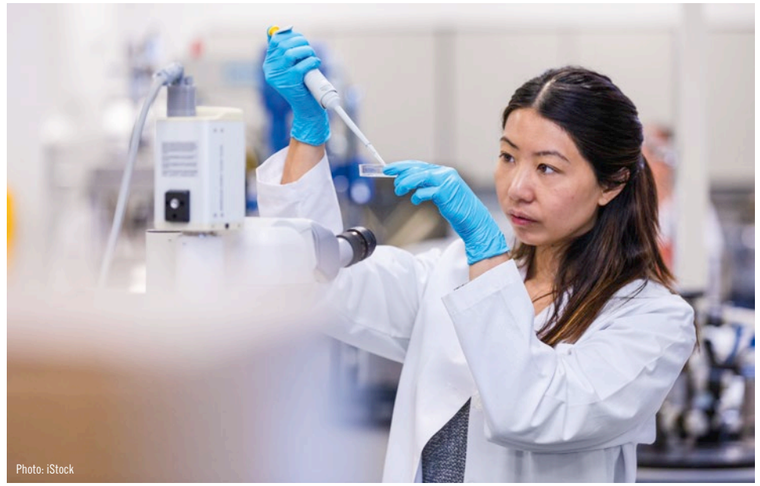


Photo: iStock

Cholesterol and Inflammation Lowering Via Bempedoic Acid, an ACL-inhibiting Regimen in HIV Trial (CLEAR HIV Trial)

This is a randomized placebo-controlled study in treated and suppressed HIV-infected individuals aged ≥40 years with either known CVD or 1 CVD risk factor to study the effect of Bempedoic acid (BA) on safety, arterial inflammation as assessed by FDG-PET/CT, lipids, inflammation, immune activation, cardiometabolic indices and non-calcified plaque (NCP) in the coronary arteries (assessed by coronary CT angiography, CCTA). This trial will be enrolled at UCSF and UCLA. Collaborators at Massachusetts General Hospital (MGH) will serve as the core facility for imaging.

The Rhythm Evaluation for AntiCoagulaTion with Continuous Monitoring of Atrial Fibrillation

REACT-AF is a multicenter prospective, randomized, open-label, blinded endpoint (PROBE design), controlled trial comparing the current standard of care (SOC) of continuous direct oral anticoagulation (DOAC) use versus time-delimited (1 month) DOAC guided by an AF-sensing smart watch (AFSW) in participants with a history of paroxysmal or persistent atrial fibrillation (AF) and low-to-moderate stroke risk.

A Trial Comparing Unrelated Donor BMT with IST for Pediatric and Young Adult Patients with Severe Aplastic Anemia (TransIT, BMT CTN 2202)

Severe aplastic anemia (SAA) is a rare condition in which the body stops producing enough new blood cells. SAA can be cured with immune suppressive therapy or a bone marrow transplant. Regular treatment for patients with aplastic anemia who have a matched sibling or family donor is a bone marrow transplant. Patients without a matched family donor normally are treated with immune suppressive therapy (IST). Match unrelated donor (URD) bone marrow transplant (BMT) is used as a secondary treatment in patients who do not get better with IST, have their disease come back, or a new, worse disease replaces it (like leukemia). This trial will compare time from randomization to failure of treatment or death from any cause of IST versus URD BMT when used as initial therapy to treat SAA. The trial will also assess whether health-related quality of life and early markers of fertility differ between those randomized to URD BMT or IST, as well as assess the presence of marrow failure-related genes and presence of gene mutations associated with MDS or leukemia and the change in gene signatures after treatment in both study arms. This study treatment does not include any investigational drugs. The medicines and procedures in this study are standard for treatment of SAA.

Low-dose Buprenorphine as a Modulator of Social Motivation in Schizophrenia

Low social motivation is a significant symptom of schizophrenia and is a major cause of disability and suffering for many patients struggling with the illness. Social motivation refers to the drive to participate in or abstain from social activities. Many patients with schizophrenia evidence both decreased drive to seek positive social input (approach motivation) and heightened drive to avoid negative social input (avoidance motivation) compared to individuals without the illness. Despite the enormous burden of these deficits on patients, there are no medications that effectively treat impaired social motivation. Buprenorphine is an unusual drug that is used to treat opioid use disorder at higher doses, and more recently, to treat depression and suicidality at lower doses. It is a unique opioid medication that has a compound action that gives it the potential to improve social motivation both by boosting approach motivation and by reducing avoidance motivation. The effects of low doses of buprenorphine have previously been studied in healthy volunteers, showing that the drug enhances social motivation. These results in nonclinical volunteers suggest that buprenorphine may be a promising treatment for deficits in social motivation seen in some patients with schizophrenia. However, no previous studies have investigated the effects of buprenorphine on social motivation in this population. Here the effects of a low dose of buprenorphine (0.15mg) on social motivation in patients with schizophrenia (N=40) will be assessed. In this double-blind, cross-over, placebo-controlled study, participants will attend a two-hour preparatory session and two six-hour laboratory sessions, at which they will receive either placebo or buprenorphine. During expected peak drug effect, they will complete validated tasks assessing social motivation. It is expected that buprenorphine will increase approach motivation and decrease avoidance motivation as measured by an attention bias task. The results of this study will lay the foundation for the clinical use of buprenorphine as the first medication to treat social deficits in schizophrenia.

A Study Evaluating the Efficacy and Safety of Vixarelimab in Participants With Idiopathic Pulmonary Fibrosis and in Participants with Systemic Sclerosis-Associated Interstitial Lung Disease

The main purpose of the study is to evaluate the efficacy of vixarelimab compared with placebo on lung function in participants with idiopathic pulmonary fibrosis (IPF) and in participants with systemic sclerosis-associated interstitial lung disease (SSc-ILD). Participants who complete 52 weeks of treatment in the double-blind treatment (DBT) period can choose to enroll in the optional open-label extension (OLE) period to receive treatment with vixarelimab for another 52 weeks.

Vilastobart (XTX101) Monotherapy and Vilastobart and Atezolizumab Combination Therapy in Advanced Solid Tumors

This is a first-in-human, Phase 1/2, multicenter, open-label study designed to evaluate the safety and tolerability of vilastobart (XTX101) as monotherapy and vilastobart (XTX101) and atezolizumab combination therapy in patients with advanced solid tumors.

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SEW

New Directions in Interventional Pain Management

About 21% of Americans suffer from chronic pain. In addition to physical therapy, medications and injections, pain management specialists use a variety of advanced interventional techniques to treat back and major joint pain. These minimally invasive procedures are used when a patient isn't a good candidate for surgery or doesn't want to have surgery. Nader Tondravi, MD, a UCLA Health pain management specialist in Torrance, describes some of these techniques.


Photo: iStock

What are some of the newest interventional procedures for back pain?

Basivertebral nerve ablation helps patients with vertebrogenic back pain, which stems from damage to the endplates of the vertebrae (bones of the spine). This causes pain when they sit, stand, twist or transition from sitting to standing, Dr. Tondravi says. "This technique, also called the Intracept procedure, uses heat to inactivate specific nerves and takes less than an hour to perform. It's only applicable for patients with certain anatomical features that we can see on an MRI. For those it helps, pain relief can last more than five years. Basivertebral nerve ablation may prevent the need for more invasive spine surgery."

Another procedure now covered by Medicare treats pain caused by lumbar stenosis, a narrowing of the space through which the spinal cord runs. Lumbar stenosis often manifests as pain radiating down the legs while standing and walking. "Narrowing caused by thickening of the ligaments in the spine can be treated with an outpatient procedure called MILD, or minimally invasive lumbar decompression. We use a small instrument about the diameter of a pen to remove some of the ligaments to create more space," Dr. Tondravi says. "Instead of removing bone, we remove ligaments. It takes less than an hour, gives immediate relief, and patients don't require hospitalization."


Dr. Nader Tondravi.
Photo: UCLA Health

Pain management physicians also treat back pain with spinal cord stimulation. It involves implanting a pulse generator and small battery pack connected to electrodes placed on top of the covering of the spinal cord. The device produces mild electrical pulses, which disrupt the pain signals.

What about knee or foot pain?

Genicular radiofrequency ablation (RFA) helps certain patients with knee pain, including those who still have pain after knee surgery and those with severe arthritis who are no longer getting good pain relief from knee injections. "To confirm the pain stems from the genicular nerve, we block it using a local anesthetic that only works for a few hours," Dr. Tondravi says. "If that provides temporary relief, we proceed with the RFA, using radio frequency waves to heat and disrupt the nerves we've identified as sending pain signals to the brain. The relief usually lasts 18 months to two years, after which the procedure can be repeated, if necessary."

Peripheral neuropathy, often caused by diabetes or cancer treatment, can cause terrible pain in the lower extremities and feet. Peripheral nerve stimulation (PNS) works similarly to spinal cord stimulation by sending electrical impulses disrupt pain signals.

What else would you like readers to know?

"Chronic back and joint pain takes a toll physically and mentally. "Patients with chronic pain should know we have an arsenal of tools to reduce their reliance on medications, especially opioid therapies given the potential risk factors related to opioids in chronic pain conditions, including dependence and tolerance," Dr. Tondravi says. "Even if we can't completely eliminate pain, our goal is to turn down the volume to help patients do things they couldn't do before so they can enjoy a better quality of life."

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New Directions in Interventional Pain Management

About 21% of Americans suffer from chronic pain. In addition to physical therapy, medications and injections, pain management specialists use a variety of advanced interventional techniques to treat back and major joint pain. These minimally invasive procedures are used when a patient isn't a good candidate for surgery or doesn't want to have surgery. Jerry Markar, MD, a UCLA Health pain medicine physician in North Hollywood, describes some of these techniques.

Photo: iStock

What's a newer interventional procedure you're excited about?

"Genicular nerve radiofrequency ablation (RFA) can help patients with chronic knee pain who aren't candidates for surgery or don't want to have surgery," Dr. Markar says. "They may be experiencing pain despite knee surgery, or they might have chronic osteoarthritis or traumatic injuries to the knee. First, we block the genicular nerves using a local anesthetic, and if it provides significant pain relief, we know the pain stems from these genicular nerves. If that's the case, we use radiofrequency energy to heat and destroy small areas of nerve tissue. This prevents the nerves from sending pain signals to the brain. The relief usually lasts anywhere from six-to-24 months, after which the procedure can be repeated, if necessary."

Dr. Jerry Markar.
Photo: UCLA Health

What are some other interventional techniques?

One of the newest techniques, called basivertebral nerve ablation, helps patients with vertebrogenic back pain, which stems from damage to the endplates of the vertebrae (bones of the spine). Damage to vertebral endplates causes pain when you sit, bend or lift. "This technique, also called the Intracept procedure, uses radiofrequency energy to heat the basivertebral nerve," Dr. Markar says. "It's only applicable to patients with certain anatomical features that we can see on an MRI and doesn't work for everyone. However, it's safe, effective and long-lasting, so it may prevent the need for other more invasive surgeries."

Pain medicine physicians can also treat back pain with spinal cord stimulation. This procedure involves implanting a pulse generator and small battery pack connected to electrodes near the spinal cord. The device produces mild electrical pulses, which disrupt the pain signals.

While not a procedure that Dr. Markar performs, another therapy now covered by Medicare treats pain caused by lumbar stenosis, a narrowing of the space through which the spinal cord runs. Lumbar stenosis often manifests as pain radiating down the legs while standing and walking. This narrowing caused by thickening of the ligaments in the spine can be treated with an outpatient procedure called MILD, or minimally invasive lumbar decompression, using a small instrument about the diameter of a pen to remove some of the ligaments and create more space. Patients interested in the MILD procedure can seek a referral from their primary care physician.

What else would you like readers to know?

"Patients with chronic pain should know that pain medicine physicians have an arsenal of tools to reduce their reliance on medications, especially opioid therapies given the potential risk factors related to opioids in chronic pain conditions, including dependence and tolerance," Dr. Markar says. "Even if we can't completely eliminate pain, our goal is to turn down the volume of pain. This can make a big difference to a patient's quality of life."

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New Directions in Interventional Pain Management

About 21% of Americans suffer from chronic pain. In addition to physical therapy, medications and injections, pain management specialists use a variety of advanced interventional techniques to treat back and major joint pain. These minimally invasive procedures are used when a patient isn't a good candidate for surgery or doesn't want to have surgery. Chrystina Jeter, MD, a UCLA Health pain management specialist in Valencia, describes some of these techniques.


Photo: iStock

What are some of the newest interventional procedures for back pain?

Basivertebral nerve ablation helps patients with vertebrogenic back pain, which stems from damage to the endplates of the vertebrae (bones of the spine). "This causes pain when they sit, stand or twist," Dr. Jeter says. "The procedure is applicable to patients with certain anatomical features that can be seen on an MRI. This technique, also called the Intracept procedure, involves placing a needle into the body of the large bone in the vertebrae and burning the nerve inside," Dr. Jeter says. "Although it doesn't work for everyone, it's safe, effective and long-lasting, so it may prevent the need for more invasive spine surgery."

Another procedure now covered by Medicare treats pain caused by lumbar stenosis, a narrowing of the space through which the spinal cord runs. Lumbar stenosis often manifests as pain radiating down the legs while standing and walking. Narrowing caused by thickening of the ligaments in the spine can be treated with an outpatient procedure called MILD, or minimally invasive lumbar decompression. "Using a small instrument about the diameter of a pen, we can remove some of the ligaments to create more space," Dr. Jeter says. "Recovery time is quite minimal and response is almost immediate. It's a great option for patients who are otherwise poor surgical candidates."

Spinal cord stimulation (SCS) can treat many kinds of back pain. "SCS involves implanting a small pulse generator and battery pack connected to electrodes placed on top of the covering of the spinal cord," Dr. Jeter explains. "The device produces mild electrical pulses, which disrupt the pain signals."


Dr. Chrystina Jeter.
Photo: UCLA Health

What about knee or foot pain?

Genicular radiofrequency ablation (RFA) helps with knee pain that persists after knee surgery or stems from severe arthritis. "To confirm the pain comes from the genicular nerve, we block it using a local anesthetic that only works for a few hours," Dr. Jeter says. "If that provides adequate temporary relief, we proceed with the RFA, using radio frequency waves to heat and disrupt the pain signals." The relief usually lasts from six months to two years, after which the procedure can be repeated, if necessary.

Peripheral neuropathy, pain in the lower extremities and feet caused by diabetes or cancer, can feel like stepping on glass shards to some patients. "This condition has often been treatment resistant," Dr. Jeter says. "Now we can use peripheral nerve stimulation (PNS). Similar to SCS, it involves implanting a battery pack connected to electrodes placed on peripheral nerves. The electrical impulses block the brain from perceiving pain signals."

What else would you like readers to know?

Patients with chronic back and joint pain should know that interventional specialists have an arsenal of tools to reduce their reliance on medications, especially opioid therapies given the potential risk factors related to opioids in chronic pain conditions, including dependence and tolerance, Dr. Jeter says. "Even if we can't completely eliminate pain, we can usually get it to a manageable level. Our goal is to help patients do things they couldn't do before, so they can enjoy a better quality of life."

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New Directions in Interventional Pain Management

About 21% of Americans suffer from chronic pain. In addition to physical therapy, medications and injections, pain management specialists use a variety of advanced interventional techniques to treat back and major joint pain. These minimally invasive procedures are used when a patient isn't a good candidate for surgery or doesn't want to have surgery. Bi Mo, MD, MPH, and Harkirat Chahal, MD, UCLA Health interventional spine and pain specialists in Thousand Oaks, describe some of these techniques.


Photo: iSto

What are some of the newest interventional procedures?

Basivertebral nerve ablation (BVN) helps patients with vertebrogenic back pain, which stems from damage to the endplates of the vertebrae (bones of the spine). "These patients have pain when they sit, stand, twist or transition from sitting to standing, and this type of back pain tends to be more resistant to other conservative therapies," Dr. Mo says. Also called the Intracept procedure, BVN uses radiofrequency to inactivate specific nerves. It's only applicable for patients with specific anatomical features that can be seen on MRI studies. "It's a safe and effective surgical intervention that offers 50% or more pain relief to about two-thirds of patients and could reduce the need for more invasive surgeries," Dr. Mo says.

Dr. Chahal describes a procedure called minimally invasive lumbar decompression, or MILD, for the treatment of spinal stenosis, which manifests as pain down the legs while standing or walking and is caused by thickening of ligaments in the space through which the spinal cord runs. "We use an instrument smaller in diameter than a pen to remove some of the ligament and create more space inside the spinal canal," Dr. Chahal says. "Even a few millimeters can have a huge impact. MILD works for 80% of patients and decreases the need for surgery by at least five years."

What are other techniques to help with pain?

Interventional spine and pain specialists also treat back pain with spinal cord stimulation (SCS), implanting a small pulse generator and battery pack connected to electrodes placed on top of the covering of the spinal cord to generate electrical pulses to disrupt pain signals and provide patients with relief of lower-back and leg pain.

Peripheral neuropathy can cause pain in the lower extremities and feet that some patients describe as feeling like stepping on glass shards. As with spinal cord stimulation, peripheral nerve stimulation (PNS) involves placing leads next to a nerve to modulate pain signals. "Patients experience less burning in the legs, allowing them to sleep, stand and walk better," Dr. Chahal says.

Genicular radiofrequency ablation (RFA) provides relief to certain patients with knee pain, including those who still have pain after knee surgery and those with severe arthritis who are no longer getting good pain relief from knee injections. To confirm the pain stems from the genicular nerve, interventional specialists use a local anesthetic to block the branches of that nerve. If that provides adequate temporary relief, they proceed with the RFA, using radio waves to heat and disrupt the pain signals for a period of time.

What else would you like readers to know?

"Patients with chronic pain should know we have an arsenal of tools to reduce their reliance on medications, especially opioid therapies given the potential risk factors related to opioids in chronic pain conditions, including dependence and tolerance," Dr. Mo says. "Even if we can't eliminate pain, our goal is to turn down the volume so that patients can do things they couldn't do before and enjoy a better quality of life."

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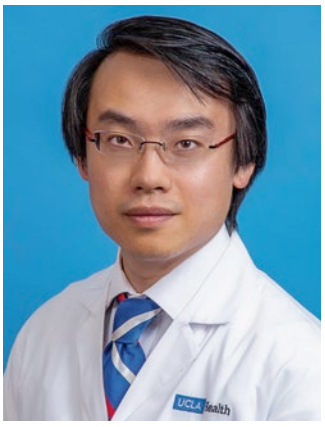
Dr. Bi Mo.
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Dr. Harkirat Chahal.
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