

DISASTER DISCUSSIONS

Talking to kids about troubling news

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Center teaches how to get through the night

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SPECIAL DELIVERY

At 81, pioneer in newborn care is still going strong

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SUMMER 2011

Stanford Medicine News

UPDATES
FOR THE
LOCAL
COMMUNITY

STANFORD HOSPITAL & CLINICS | LUCILE PACKARD CHILDREN'S HOSPITAL | STANFORD UNIVERSITY SCHOOL OF MEDICINE

New technique cuts back on surgical scarring

Stanford researchers have developed a special wound dressing that may significantly reduce scar tissue caused by incisions.

Results of animal tests and of an early clinical trial of the dressing were “stunning,” said Michael Longaker, MD, MBA, professor of medicine and senior author of a new study on the dressing. “It was a surprisingly effective treatment.”

After sutures are removed, the edges of an incision are pulled in different directions by the surrounding skin, causing scar tissue to thicken and spread. The dressing, referred to as a “stress-shielding device,” eliminates this tension, reducing the amount of scarring.

The dressing is made of a thin and elastic silicone plastic that is stretched over the incision after sutures have been removed. The dressing sticks to the skin with an adhesive. As it contracts, it provides uniform compression across the wound.

In tests on pigs, whose skin is similar to that of humans, the researchers found that wounds treated with the dressing “demonstrated nearly scarless closure” eight weeks after sutures were removed.

In a follow-up test on women who had undergone abdominoplasties (tummy tucks), plastic surgeons scored the appearance of the treated scars 39 points higher than untreated scars.

Did you know?

The heart beats 3 billion times in a full lifetime.

A rendering of the New Stanford Hospital highlights the design's use of space and light to create a welcoming environment.



Ready for renewal

Medical Center prepares for modernization

With the Palo Alto City Council's unanimous approval now in hand, Stanford University Medical Center is laying the groundwork for its much-anticipated \$3 billion Renewal Project, which will bring new state-of-the-art patient care and research facilities to the community. After a four-year process, the council gave the final nod to the project on June 6, paving the way for construction of a new Stanford Hospital and laboratories at the School of Medicine and the expansion of Lucile Packard Children's Hospital.

“At the heart of the project is the hospitals' and medical school's need to deliver rapidly advancing medical science to a growing community of patients and providers in the safest, most future-thinking and seismically sound environment,” said Mark Tortorich, FAIA, vice president of planning, design and construction for the hospitals. “It's a vast project that will have a tremendous benefit locally and to the greater health-care community.”

The Stanford Medical Center Renewal Project will kick off this summer with two years of site prepara-

tion. One of the first projects will be an upgrade to the Hoover Pavilion on Quarry Road. Originally built in 1930 as the Palo Alto Hospital, the site today houses outpatient and administrative offices and the Arboretum Children's Center. The building will be modernized and improved, and a facelift will reflect its historic image. A new parking garage also will be added to the site.

First steps

On Welch Road, major utility upgrades will be made that are essential to the underlying functionality of the new buildings. Water services, gas lines and the information technology infrastructure—located under Welch Road between Pasteur Drive and Quarry Road—will be replaced over the next 18 to 24 months. Welch Road will then be repaved, with a center turn lane and new bicycle lane. The landscape and median strips will be improved, benefitting all the buildings along Welch Road.

This fall, demolition of the buildings at 701 and 703 Welch Road will clear ground for the children's hospital expansion, which will add 104 net new beds.

SEE RENEWAL ON PAGE 3

▶ THE WALL STREET JOURNAL.

“The most dangerous exercise you can do when you have arthritis is none.”

—KATE LORIG, MD, director of the Patient Education Research Center at Stanford, on doctors now recommending moderate physical activities to help manage osteoarthritis. *April 12*

▶ San Francisco Chronicle

“This is the disease of the 21st century that we need to crack—the mystery that we need to solve.”

—JOSE MONTOYA, MD, associate professor of medicine, on chronic fatigue syndrome. *May 25*

▶ The New York Times

“It is an effective and inexpensive way to manage medical care.”

—DAVID SPIEGEL, MD, professor of psychiatry and behavioral sciences, on using hypnosis to help manage pain and anxiety. *April 16*

▶ KTVU.COM

“If you are a 25-year-old person and you just become HIV infected, if you get into care and get onto treatment, you are expected to live into your 70s.”

—ANDREW ZOLOPA, MD, associate professor of infectious diseases and geographic medicine and director of the Stanford Positive Care Clinic, discussing how HIV is on the rise in people in their early 20s. *June 2*

▶ The New York Times

“It is important that men who are considering having children have the opportunity to weigh the risks of the various available procedures.”

—EUGENE CARRAGEE, MD, professor of orthopaedic surgery and editor-in-chief of the *Spine Journal*, on his study suggesting that a bone-growth protein used in spine surgery is tied to sterility in some men. *May 25*



When disaster strikes

How to talk to your child about traumatic events

News reports this spring have been grim: earthquakes triggering nuclear disaster in Japan, violent events across the Middle East, a barrage of tornadoes in the Midwest and South. These catastrophes present a special challenge for parents, who often wonder how to talk to their children about such troubling news.

Open, honest, age-appropriate communication with children and the reassurance that they are safe are the most important elements of helping youngsters handle news of disasters, according to Victor Carrion, MD, a child and adolescent psychiatrist at Lucile Packard Children’s Hospital.

“Children really need to get the message that their parents, caretakers, community and society are taking care of them,” said Carrion, who is also an associate professor of psychiatry and behavioral sciences at the School of Medicine and director of the Stanford Early Stress Research Program. He has conducted extensive research on childhood trauma and has several suggestions for how parents can help their kids handle difficult news.

Age-appropriate information

Being honest and telling your children that you welcome their questions are key to maintaining their trust, Carrion said. A “say nothing” approach can backfire because it sends the message that children cannot bring their worries to their caregivers.

Kids need information tailored to their age and comprehension level. A preschooler can handle less detail than a teenager, for instance, and children of different ages process their reactions to bad news differently. Playing games or drawing pictures about the news is the best approach for the very young, while engaging in conversation is appropriate for older kids.

“It’s important for children to understand that fear is a normal response to these situations,” Carrion said. “It is appropriate to say that one has experienced fear, one understands the fear they have.”

But children should not be put in the position of helping parents handle their own fears, he cautioned. It is the parent’s or caregiver’s job to help children feel safe. One approach is to describe things their families and communities are doing to protect them, such as having a family emergency plan or earthquake kit.

Information overload

Honest delivery of bad news doesn’t require that parents force a discussion or share every detail.

“Children usually want an answer to a question,” Carrion said. “You don’t have to elaborate beyond their specific question, other than to tell them they can always come to you with more questions.”

It’s appropriate to limit children’s exposure to news reports, while recognizing that older kids may come across these on their own and want to discuss them.



Victor Carrion, MD, a child and adolescent psychiatrist at Lucile Packard Children’s Hospital, advises open, honest communication with children about catastrophes in the news.

“We know that exposure to the media can increase distress in children,” Carrion said.

And it can help to point out the good that comes from a disaster—for instance, when people from around the world unite to contribute to relief efforts, he said. Activities such as drawing pictures to send to disaster victims, assisting with local fundraisers or helping plan for emergencies can help kids regain a sense of control over the situation.

Signs of stress

Finally, parents should be alert for behavior changes that signal distress, such as increased clinginess in a preschooler, complaints of headaches or stomach aches in a youngster or withdrawal in a teenager. These behaviors are often a clue that a child needs help.

If best efforts to help children deal with traumatic news do not resolve the problem, it may be time to seek expert assistance from a child psychologist or psychiatrist, Carrion concluded.

“Professional help doesn’t always mean years of therapy,” he said. “Sometimes it means just one or two visits for the child or maybe just a consultation for a parent to discuss how to approach a particular kid with a particular temperament.”

RENEWAL FROM PAGE 1

In early 2012, utility lines that serve the current Packard Children's Hospital—which, like Stanford Hospital, will continue to care for patients throughout the six-to-seven-year renewal process—will be redirected to make way for construction, which will take about 18 months.

By the fall of 2012, “you’ll begin to see a large hole in the ground” as excavation begins, said Tortorich. The underground parking structure and floors will be built first, and then the above-ground work will become visible, with steel framework scheduled to rise in summer 2013. Construction is expected to be completed by 2016.

At the medical school, the 1959 Edwards, Lane and Alway buildings, which do not meet current seismic standards, will be replaced with three laboratory buildings to be called the Foundations in Medicine (FIM) buildings. Construction for the first FIM structure is scheduled to begin April 2013, with occupancy scheduled for July 2015.

Building for change

At Stanford Hospital & Clinics, some facilities and services currently at 1101 Welch will be moved into the renovated Hoover Pavilion to help prepare for construction, Tortorich said. The Welch Road building and the Blake Wilbur parking structure will be removed and prepared as the site of the new Stanford Hospital.

Shovels will go into the ground in the beginning of 2013, with steel framework for the new, 600-bed Stanford Hospital to go up in August 2014. The new hospital, including an enlarged and enhanced Emergency Department, will be completed in 2017, with planned occupancy the following year.

The interior design will reflect state-of-the-



Single-patient rooms in Lucile Packard Children's Hospital will be designed for adaptability and family-centered care.

art medicine, family-centered care and an adaptability to evolve with advances in medicine, said George Tingwald, MD, AIA, director of medical planning.

“When you plan for change, you plan for what isn’t going to change,” he said. “Supporting patients and families, making the experience as simple as possible, clarity of access to the building, ease of parking, accommodations in every patient room for families to sleep over—these need the least amount of flexibility. But in more highly technical areas—where you know there will be changes—that’s where you provide the flexibility.”

This “flexible design format” is fundamental to the building’s lifespan of 50 years or more. Patient rooms are modular, so they can accommodate any level of acuity. The 800-square-foot operating rooms can incorporate new technology or innovations as they are introduced.

Environmental elements

Environmental friendliness is also a top priority. At both inpatient facilities, the heating, ventilation and air conditioning will be on a displacement system—far more efficient than conventional systems. Both buildings will also have landscaped green roofs. At Packard Children’s, gardens will be irrigated in the summer by condensation captured from the mechanical systems and building.

“Working in harmony with the environment is an aesthetic benefit, as well as a healing one,” Tortorich said. Patient rooms at Packard Children’s will offer views of the gardens that encircle the building, with restorative landscaping that includes fountains, trees and native grasses. Wind and solar panels will help lower costs, and both patient and research areas will harmonize with the environment.

Community commitments

The Renewal Project has been carefully crafted to benefit all members of the community, regardless of whether they need the hospitals’ services directly. The medical center has agreed to pay close to \$175 million for community benefits to the City of Palo Alto, including transportation improvements, such as \$1.8 million a year for 51 years to provide Caltrain GO Passes to all medical center employees (starting in 2015) and four new shuttle buses.

The medical center payment also includes \$23.2 million to support affordable housing and sustainable neighborhood, community development and health programs, with an additional \$6.2 million for Palo Alto parks, libraries and community facilities. To the City of Menlo Park, the medical center has agreed to pay \$3.7 million, with \$1.3 million for traffic improvements and \$2.4 million for city discretionary needs.

Of course, the most significant benefit will be increased access to the new state-of-the-art hospitals, providing medical care in the most modern and highly rated facilities on the West Coast. [SMH](#)

Silicon Valley companies join hospital partnership

Stanford Hospital & Clinics and six leading Silicon Valley technology companies have joined together to provide unprecedented philanthropic support for development of the new \$2 billion adult hospital to be built at Stanford Medical Center.

Apple, eBay, HP, Intel, Intuit and Oracle are founding members of the Stanford Hospital Corporate Partners Program. Their contributions are projected to provide as much as \$150 million over the next 10 years to help build the new hospital and create a global model for patient-centered, technologically advanced health care. SHC expects to raise \$400 million or more in private donations to fund construction of the new facility.

“There is no better time to invest in the future of health care than now, and no better place than here at Stanford, in the heart of Silicon Valley. By joining with us at this moment, these companies have demonstrated great leadership that

reflects their ongoing commitment to improve the quality of life on a global scale,” said Stanford University President John Hennessy.

The companies also will collaborate with SHC to develop innovative approaches to patient access, information, education and navigation at the new Stanford Hospital.

“Stanford has the ability to change the face of health care,” said Stanford Hospital President and CEO Amir Dan Rubin, who joined SHC in January. “To be part of a pioneering collaboration with our founding Corporate Partners that can have such a broad impact on humanity is unique and truly inspiring.”

“Our Corporate Partners recognize that Stanford is uniquely positioned to lead in translating the next wave of medical breakthroughs into care that will benefit patients everywhere,” said SHC Board Chair Mariann Byerwalter, “and that by investing here, they can impact health worldwide.”



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To learn more about the projects and follow their progress, visit stanfordpackard.org.

Seeking sleep

Center is a resource for patients with apnea, insomnia and other sleep disorders



Triathlete Robert Upchurch learned how to manage his obstructive sleep apnea in a class at the Stanford Sleep Medicine Center.

“I had forgotten what it was like to wake up rested. I was always exhausted. I walked around tense as a rock. But for me, that was normal.”

—Robert Upchurch
Stanford Sleep Medicine Center patient

For some people suffering from obstructive sleep apnea, the remedy feels every bit as troublesome as the disorder. That’s how Robert Upchurch felt until he took advantage of a new class at the Stanford Sleep Medicine Center in Redwood City.

Upchurch, 48, who trains aircraft mechanics for United Airlines, was diagnosed with obstructive sleep apnea last August after an overnight evaluation at the Stanford Sleep Medicine Center. Although the Hawaiian-born triathlete worked out almost every day, he had high blood pressure and was overweight. Both are common symptoms of obstructive sleep apnea, which stresses the heart and can slow down the body’s metabolism, leading to weight gain.

“I had forgotten what it was like to wake up rested,” he said. “I was always exhausted. I walked around tense as a rock. But for me, that was normal. At my evaluation at the Stanford Sleep Medicine Center, I woke up in the morning and told the doctors that I had slept well. They said, ‘No, you didn’t.’”

More than 12 million Americans suffer from this potentially fatal condition, which occurs when the muscles in the back of the throat relax during sleep, narrowing or completely collapsing the airway. (*Apnea*, a Greek word, means “without breath.”) When the brain senses that it’s not getting enough oxygen, it briefly wakes the person up. This pattern, which may repeat hundreds of times each night, leads to shallow sleep, daytime sleepiness or fatigue, and cognitive dysfunction. It also increases the risk of heart-related disease such as high blood pressure, heart attack, arrhythmias, heart failure and stroke.

Mechanical adjustments

Upchurch was set up with a continuous positive airway pressure (CPAP) machine, which blows air into the upper respiratory tract through the nose to keep the airway open. But he found it uncomfortable. The air pressure felt too high, he said. He would wake up with a sore stomach and dry mouth. So he stopped using it.

Several months later, he received a notice in the mail about a new, monthly CPAP class to help Sleep Medicine Center patients adjust to their machines. “CPAP has always been the gold standard for treatment of obstructive sleep apnea, but adherence to the treatment varies from 20 to 80 percent, depending on the study,” said Michelle Cao, DO, a Stanford Hospital pulmonologist and sleep expert who leads the class. “My goal was to try to help people solve their problems. I call it a CPAP boot camp.”

Upchurch went to a class in April, along with some 20 other participants. “Everyone had a different question, but we were all learning from each other,” he said.

Cao lowered the airflow pressure on his machine and refitted his face mask, which looks a little like the oxygen mask that a professional football player uses on the sidelines. She also showed him how to use the machine’s humidifier to help prevent his



Sleep expert Clete Kushida, MD, PhD, explains how the portable polysomnograph works. Medical assistant Jennifer Harpe, modeling the device, said, “Once all this stuff is on, you don’t really feel it.”

mouth from drying out.

“Going to that class made a huge difference,” Upchurch said. “Now I’m getting a much deeper sleep. I feel more energetic, and my upper body feels more limber and relaxed.”

Upchurch said he also has benefitted from the guidance he received at the center on adjusting his diet and his sleep schedule to help ensure better rest. In May, he ran the Bay to Breakers, a 12-kilometer (7.5 miles) race in San Francisco, and felt so energized afterward that he went to a nearby hotel pool to swim laps. Now he is preparing for the San Francisco Marathon on July 31.

Resource for sleep studies

The Stanford Sleep Medicine Center offers a variety of other treatments for obstructive sleep apnea, including surgery to reduce anatomical obstruction in the nose, throat and/or tongue, and education about behavioral measures to alleviate the disorder, such as a change in sleeping position and weight loss.

Established in 1972, the center, widely recognized as the birthplace of sleep medicine, treats both adults and children. Its faculty comprises some of the foremost medical experts on obstructive sleep apnea—a term coined by the center’s Christian Guilleminault, MD—as well as other sleep apneas, insomnia, restless legs syndrome, narcolepsy, idiopathic hypersomnia (disabling daytime sleepiness), and parasomnias, such as teeth-grinding and sleepwalking.

“Many of the pioneering discoveries in sleep medicine and basic sleep research were made by Stanford’s team of internationally recognized scientists,” noted Clete Kushida, MD, PhD, the center’s medical director.

When Upchurch went for his sleep study, he spent the night in one of the center’s 18 private rooms with state-of-the-art monitoring equipment and sound-proofing. Before going to sleep, he was attached to a polysomnograph, which measures physiological functions, including brain activity, eye movements, heart rhythm, breathing and muscle activity.

The center is increasing the number of portable, or ambulatory, monitoring devices it makes available to patients, allowing sleep studies to be conducted at home. The technology in these devices has improved

tremendously over the past several years, Kushida said, making them almost as accurate as the larger versions in the Sleep Medicine Center. They are best suited for patients with a high probability of having obstructive sleep apnea, as well as for patients who need to spend the night in their own bed for reasons of comfort or health.

Treating insomnia

Insomnia is the most common sleep disorder, affecting 10 to 14 percent of Americans. It most commonly begins during periods of stress related to work or family, but it can also emerge as a symptom of depression, anxiety, dementia or physical conditions, such as abnormal thyroid function, asthma or chronic pain. Regardless of how it begins, when the problem persists, it should be treated. Many people turn to prescription sleep medication, which often helps but also can lead to drug dependence or tolerance.

But studies have shown that cognitive behavioral therapy is as effective as sleep medication in the short run and much more effective in the long run. The Stanford Sleep Medicine Center has been at the forefront of the nonpharmacological treatment of insomnia, and it has the only Bay Area program—and one of the few such programs nationwide—devoted to cognitive behavioral therapy for sleeplessness.

The therapy equips patients with a set of mental tools to help them overcome their insomnia. “I think by and large, most people don’t know that this exists as an option, but it is incredibly effective,” said Rachel Manber, PhD, who has run the program for more than a decade. She is leading a national initiative to train psychologists in the Veterans Affairs Health Care System in cognitive behavioral therapy for insomnia.

The therapy helps patients establish their bed as a cue for sleep and weaken it as a cue for wakefulness. It also teaches them strategies for reducing thoughts and worries that interfere with sleep.

“It’s gratifying for me to see people get better,” Manber said. “And they get better quickly.”

For more information about the Stanford Sleep Medicine Center or to schedule an appointment, call 650-723-6601 or visit stanfordhospital.org/sleep.

When your child has sleep problems

On June 1, Lucile Packard Children’s Hospital opened an expanded Pediatric Sleep Center on the campus of El Camino Hospital in Mountain View. The new center, which has grown from four to eight beds, will provide children and adolescents with state-of-the-art evaluation for their sleep problems in a kid-friendly environment.

Sleep testing is a useful diagnostic tool for getting to the bottom of problems such as snoring, interrupted sleep breathing, nightmares, bed-wetting and daytime sleepiness. The center also evaluates young patients with behavior problems that may be worsened by poor sleep, such as attention deficit hyperactivity disorder.

The center offers a complete range of sleep evaluations, from simple diagnostics to complex sleep studies. In addition to a full complement of sleep lab equipment, each room has space for one parent to stay the night with the child.

“Having a parent present makes children feel safer, and they can sleep better,” said Nanci Yuan, MD, the center’s medical director. “It’s an open system. The family can see what’s going on and be there to help their child.”

The center is equipped with amenities for both parents and children, with Internet access in each patient room and plenty of kid-friendly features—especially important for helping small children prepare for sleep in an unfamiliar setting.

“Most sleep labs won’t see kids younger than 5,” said Michael Henry, chief of respiratory services at Packard Children’s, noting that his staff of registered respiratory therapists and polysomnographers are trained to handle patients as young as a few months of age. The technicians have a stockpile of age-appropriate games and videos to entertain and distract children while they are being connected to monitoring equipment.

“When we do a sleep study, we measure many aspects of the patient’s sleep quality, such as the architecture and duration of sleep,” Yuan said. The studies measure the length and type of sleep phases, episodes of arousal, heart rhythms, and respiratory problems such as snoring and abnormal gaps in breathing.

Yuan, who is board-certified in sleep medicine, pediatric pulmonary medicine and general pediatrics, can also provide detailed follow-up for patients whose sleep studies show that they need further treatment.

Families who think their child may benefit from a sleep study should ask their pediatrician about a referral to the Pediatric Sleep Center. To hear a podcast on children’s sleep issues, go to med.stanford.edu/121/2011/pelayo.html. For more information, go to sleepdisorders.lpch.org.

LEARN MORE ABOUT YOUR HEALTH

EVENTS ARE FREE UNLESS OTHERWISE NOTED. SPACE MAY BE LIMITED, SO PLEASE CALL TO REGISTER IN ADVANCE.

Hypertension in the 21st Century: What We Need to Know

Presented by Stanford Health Library

SPEAKER: Glenn Chertow, MD
Professor of Medicine, Nephrology
DATE: Wednesday, June 29, 7 pm
LOCATION: Redwood City Public Library,
1044 Middlefield Road
To register, call 650-498-7826.

Using Fiber Optics and Genes from Algae to Solve Problems in Psychiatry

Sponsored by the Office of Science Outreach and Stanford Continuing Studies

A look at optogenetics—a new technology being used to explore neural circuits in health and disease—to gain insights into complex brain functions.

SPEAKER: Karl Deisseroth, MD, PhD
Associate Professor, Bioengineering and Psychiatry
DATE: Thursday, June 30, 7 pm
LOCATION: Lawn adjacent to Stanford's Cantor Arts Center
Part of the Stanford Outdoor Science Talks.
For more information, call 650-724-4332.

Grandparents' Seminar

Presented by Packard Children's Hospital

DATE: Thursday, July 7, 6-8:30 pm
LOCATION: Community Programs Classroom, 4100 Bohannon Drive, Menlo Park
Attendance fee. To register, go to calendar.lpch.org.

Stanford earns top hospital ranking

Stanford Hospital & Clinics has been ranked No. 1 in San Jose, Calif., in the first-ever Best Hospitals metro area rankings by *U.S. News & World Report*.

The rankings recognize 622 hospitals in or near major cities with a record of high performance in key medical specialties and include 132 of the 152 hospitals already identified as the best in the nation. Stanford Hospital & Clinics consistently ranks among the top institutions in the *U.S. News & World Report* annual list of "America's Best Hospitals."

To be ranked in its metro area, a hospital had to score in the top 25 percent in at least one of 16 medical specialties. Stanford Hospital & Clinics was ranked nationally in 12 of the 16 specialties:

■ Cancer	No. 11
■ Diabetes & Endocrinology	No. 28
■ Ear, Nose & Throat	No. 16
■ Geriatrics	No. 37
■ Gynecology	No. 12
■ Heart & Heart Surgery	No. 16
■ Kidney Disorders	No. 25
■ Neurology & Neurosurgery	No. 27
■ Orthopedics	No. 17
■ Psychiatry	No. 13
■ Rheumatology	No. 13
■ Urology	No. 22

Three specialty areas also were honored as "high performing," including gastroenterology, pulmonology and rehabilitation.

The rankings are posted online at usnews.com/hospitals.



RARE: A Documentary Film

RARE follows an extraordinary mother in a race against time, as she unites people from around the world in a quest to cure her daughter's rare genetic disease.

DATE: Wednesday, July 13, 6 pm
LOCATION: Clark Center Auditorium, Stanford School of Medicine
For more information, go to bioethics.stanford.edu or e-mail mwolpert@stanford.edu.

Bringing Baby Home

Presented by Packard Children's Hospital

DATE: Sunday, July 24 and 31, 10 am-4 pm
LOCATION: Community Programs Classroom, 4100 Bohannon Drive, Menlo Park
Attendance fee. To register, go to calendar.lpch.org.

Sleep Apnea and How It Relates to Stroke

Sponsored by the Stanford Stroke Support Group

SPEAKER: Anstella Robinson, MD
Clinical Associate Professor, Psychiatry and Behavioral Sciences
DATE: Wednesday, July 27, 5:30-7 pm
LOCATION: Bing Dining Room, third floor, Stanford Hospital
No registration required. For information, call 650-565-8485.

Heart to Heart: A Seminar on Growing Up for Parents and Kids

Presented by Packard Children's Hospital

For Girls Only (ages 10-12)
Wednesday, Aug. 3 and Aug. 10, 6:30-8:30 pm
For Boys Only (ages 10-12)
Thursday, Aug. 11 and Aug. 18, 6:30-8:30 pm

Attendance fee. To register, go to calendar.lpch.org.

Preparation for Multiples

Presented by Packard Children's Hospital

DATE: Sunday, Aug. 14, noon-4:30 pm
LOCATION: Packard Hospital Boardroom, 725 Welch Road, Palo Alto
Attendance fee. To register, go to calendar.lpch.org.

All About Pregnancy

Presented by Packard Children's Hospital

DATE: Saturday, Aug. 21, 11 am-1 pm
LOCATION: Community Programs Classroom, 4100 Bohannon Drive, Menlo Park
To register, go to calendar.lpch.org.



A sneak peek at medical school

Charlotte Alipate, a student at Palo Alto High School, learns how to give CPR to a robotic patient as part of this spring's Med School 101. About 150 Bay Area high schoolers came to Stanford to play medical student for the day. Teens visited the medical school's new Li Ka Shing Center for Learning and Knowledge to learn about sleep medicine, genetic testing, medical innovation, stem cell science and more. Alipate and her peers took part in an interactive session in the school's simulation center—one of the largest and most advanced in the world. This year's event was sponsored by Stanford Hospital & Clinics. For more photos, visit the medical school's Flickr site at bit.ly/euVTkt.

Study: Drug plus dairy treats dangerous milk allergy

Nine-year-old Ludovica La Rosa was born into an Italian family but until recently was never able to indulge in favorites like lasagna or pizza because of a life-threatening dairy allergy. Her allergy was so severe that the tiniest trace of milk, found in a piece of cured ham, once sent her into shock.

“Her lips were swelling like crazy,” Ludovica’s father, Gregorio La Rosa, recalled of the family’s trip to the emergency room. “The same thing happened to the mucous membrane in her throat. It was really, really scary.”

Last year, Ludovica took part in a clinical trial at Stanford University School of Medicine to test a potential cure for milk allergies. The Stanford scientists, along with colleagues at Children’s Hospital Boston, recently reported success in effectively treating the condition. Most of the children who

took part in the small study, including Ludovica, are no longer allergic to milk.

As the most common food allergy, milk allergy affects millions, including 2.5 percent of children under age 3. While some kids outgrow it, others’ life-threatening response to dairy products never subsides.

The new trial combined desensitization therapy with doses of an immune-system drug. In desensitization therapy, patients receive small, gradually increasing doses of an allergy trigger until their bodies become accustomed to it. Previous research showed this method could ameliorate milk allergy, but the process often produced severe reactions in patients.

To circumvent these allergic reactions, Ludovica and the 10 other children in the trial received omalizumab, a drug intended to deactivate the immune-system molecules that caused their allergies. After nine weeks on the drug, the research team began giving the children small quantities of milk protein.

“This drug is like a ‘protective blanket,’” said Kari Nadeau, MD, PhD, an assistant professor of pediatrics who led the

As the most common food allergy, milk allergy affects millions, including 2.5 percent of children under age 3. While some kids outgrow it, others’ life-threatening response to dairy products never subsides.



Stanford portion of the study. “We think it possibly protects subjects from having reactions to food allergens during oral immunotherapy.”

The children got omalizumab and milk protein together for 16 weeks. Then the investigators stopped the drug but gave the children daily doses of milk (2,000 mg, or about 2 ounces) for eight more weeks. Nine of the 11 children successfully completed an oral milk challenge, drinking about 8 ounces of milk without an allergic reaction. These children began consuming 8 to 12 ounces of dairy per day to maintain their tolerance.

The next step is to conduct larger studies to refine the therapy and expand its applications. “This treatment could be used for other food allergies as well,” said Nadeau, noting that a trial for children with peanut allergy is under way in Boston.

For Ludovica and her family, the resolution of her milk allergy has made life easier. Meals out in restaurants are more relaxing, La Rosa said, since the family doesn’t have to be constantly vigilant about her every bite. And Ludovica can indulge in a slice of birthday cake just like any other kid. [SNM](#)

Pediatrician Kari Nadeau, MD, PhD, is using small doses of milk to desensitize children who are allergic to dairy products.

Volunteers needed for blood pressure study

Stanford is taking part in a national study launched by the National Institutes of Health to determine whether maintaining blood pressure levels lower than current recommendations reduces the risk of cardiovascular and kidney diseases, or age-related cognitive decline.

The Systolic Blood Pressure Intervention Trial (SPRINT) will track participants treated with commonly available blood pressure medications over four to six years. Participants will be tested regularly to determine the health of their heart, kidneys and brain.

To volunteer, you must be at least 55 years old, have high blood pressure and have no history of diabetes or stroke. For more information, call 888-777-5123 or e-mail StanfordSPRINT@gmail.com.



Did you know?

The nerves in the body are most concentrated in the fingertips.

The pioneer of preemie care

“Well, I think little Will is pretty close to being able to go home.”

That’s the opinion—and you can count on it—as it comes from 81-year-old neonatologist Philip Sunshine, MD, who has cared for more than 30,000 premature babies in his long and still very active career.

“He’s really feeding well and growing,” Sunshine continued. “Although preemies have an immune system that’s very delicate, he has no infections.”

It’s that big moment when Will’s parents hear their preemie is finally ready to leave Lucile Packard Children’s Hospital’s Intermediate Care Nursery for that first ride in the family minivan. But receiving this welcome news from Sunshine, a grandpa in lab coat and running shoes, ties the family to something larger and more historic.

“Phil is actually a pioneer and one of the creators of our discipline,” said neonatologist David Stevenson, MD, a professor of pediatrics who is proud to have been mentored by Sunshine. “He’s one of our history’s best.”

Sunshine arrived at Stanford in 1957, when the School of Medicine was located in San Francisco and the term “neonatology” had yet to be coined. His own story parallels the narrative of modern-day neonatal care and a revolution in saving lives.

“When I first started seeing preemies, survival was less than 50 percent,” Sunshine recalled. “Now it’s well over 90 percent.”

The co-founder of the California Perinatal Association, Sunshine has been both author and witness to an explosion of research and care. “I chose this field not just because I love babies but also because I found it very exciting,” he said. “In 1963, when I finished my fellowship, there had been only a few papers published that even talked about neonatology.”

A renowned scientist as well as clinician, he was a member of the team that first implemented mechanical ventilation at Stanford and devised the first scoring system for selection of infants to be treated with assisted ventilation. He was the first in the United States to describe a child with ornithine transcarbamylase deficiency, a rare and deadly metabolic disorder, and he led groundbreaking research in developmental gastroenterology and nutrition in newborns, among other contributions.



Philip Sunshine, MD

Sunshine remembers one key practice he helped advance that is now so common, it would seem bizarre to do otherwise. “Up until around 1966, parents weren’t allowed to even come into the nursery with their babies,” he said. “But we discovered that parents provide care that doctors and nurses could not. Parents get to know their babies at an early stage of life, and the babies relate well to this.”

“When I first started seeing preemies, survival was less than 50 percent. Now it’s well over 90 percent.”

Through it all, he has been famously unflashy. In the 1970s, while leading divisions in neonatology and gastroenterology at Stanford and serving on national neonatology boards and associations, he toiled around Palo Alto

in an old Dodge Dart that lived to see 275,000 miles. “We also used to joke about the way he dressed, with lots of keys and stuff, so that people mistook him for a night janitor,” Stevenson recalled.

Sunshine turned 81 on June 16 but has no plans to leave the institution he has been a part of for 54 years. He also has held leadership positions at Children’s Hospital Los Angeles and the Keck School of Medicine at the University of Southern California.

“I’ve been lucky,” said Sunshine, “and if my health stays OK, I’ll keep working. My agreement with the division chief is that as long as I do an excellent job, he’ll keep me on.”

William Benitz, chief of the Division of Neonatology, is only too happy to have Sunshine around: “From my perspective, Phil just might work forever. He’s still fully engaged in babies and their care—not as a detached authority figure but in a very intimate way. He is extraordinarily important to our families and to our mission as neonatologists, and his perspective and achievements are timeless.” 