

Spine surgery saved him from paralysis

Now, James Jean-Claude has hope for the future

Virtual reality, lasers and flexible robots Enhancing diagnostics and treatment, close to home

Organ donation - the gift of life Two local donors share their story



THE GEORGE WASHINGTON UNIVERSITY **HOSPITAL**



MEDICINE

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Julia Shelton shares her amazing story of recovery and second chances



With these first few months of warm weather, we've seen our city blossom with new life and new beginnings. It's been a season of growth at GW Hospital, as well.

In this issue of *Health News*, you'll read about the opening of the GW Cancer Center, a hub for research and innovation focused on bringing

the best in cancer treatments and prevention to the DC area. We also became the first hospital in the region to use a virtual reality tool for surgery. This allows neurosurgeons, for example, to explore a patient's brain prior to the procedure, much like a pilot uses a flight simulator. And finally, the concept of "new beginnings" takes on a special meaning for two kidney transplant recipients who got to meet their organ donors for the first time.

With each of these "firsts," our goal remains providing you and your family with the highest quality, advanced care. We're grateful for the opportunity to be a partner in your health.

Kimberly Russo Chief Executive Officer



OUTPATIENT Stroke Support Group

Our monthly meeting guides, educates and supports stroke survivors and their caregivers through the disease process. We discuss problems, concerns, and methods for coping, and provide access to resources.

The group meets the fourth Thursday of every month, 1:30 – 2:30 p.m. 2131 K Street NW, Suite 450 · Conference Room · Washington, D.C.

For more information, contact Brianne Altavas at 202-715-4977, or Kristen Fiackos at 202-715-4971.

Runny nose, sneezing, itchy and watery eyes?

HOW TO MANAGE SEASONAL ALLERGIES



If you're among the 15 to 25 percent of people who have seasonal allergies, you probably use allergy products to relieve your symptoms. But you may not realize why you even have them. "Allergies are a result of an inappropriate immune response. The body thinks pollen is the enemy and throws up a defense, such as the runny nose and watery eyes. Those mechanisms help to rinse pollen away," says Allergist **Daniel Ein, MD, FACP, FACAAI, FAAAAI.** "The general treatment principle is to manage your symptoms."

Different allergens are also present at different times of the year in this region. "In early spring, we have tree pollens; late spring has grass pollens and weeds; in mid-August, ragweed blooms; and later in autumn, leaf molds are the culprit for some sufferers," says Dr. Ein. "Indoor allergens, such as animal danders and dust mites, can cause year round symptoms."

Dr. Ein explains once-a-day antihistamines or cortisone and antihistamine nasal sprays are good choices to alleviate symptoms. Saline nasal sprays or rinses can help wash pollen from the nasal passages. If your eyes are itchy and watery, a prescription or non-prescription eye drop may be helpful.

You may also consider allergy testing and immunotherapy. "The allergist makes up a custom mixture based on your test results and starts giving shots in little doses and gradually increases the dose over time. Allergy shots work for 80 percent of the people who take them, but since it takes time for the body to build up the immunity, it may take longer to see relief," says Dr. Ein.

To find an allergy specialist, call 1-888-4GW-DOCS (449-3627).

SIMPLE STEPS TO BREATHING EASY

Here are some simple tips that may help minimize allergy symptoms.

- 1. Keep windows closed to prevent pollen from getting inside. Use air conditioning when possible.
- 2. Wipe away dust. Use a damp cloth when dusting to prevent spreading it around.
- 3. After spending time outdoors, shower and change into clean clothing.
- **4.** Prevent medication interactions. Some nasal sprays and decongestants can interfere with other drugs you may be taking, so always check with your doctor before using them.
- 5. Pollen counts are usually highest in mornings, so if possible, stay inside until the afternoon.

A **BOLD APPROACH** TO CANCER RESEARCH



"We are in a unique position to drive innovative cancer research and policy."

- Eduardo M. Sotomayor, MD, GW Cancer Center Director Atop the George Washington University's Science and Engineering Hall, the GW Cancer Center's new space is a central location for cancer research in Washington, D.C. >

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Cancer Center

GW

The GW Cancer Center, George Washington University, GW Hospital, the GW Medical Faculty Associates (MFA), the Milken Institute School of Public Health at GW, and affiliated health systems bring cancer research, clinical cancer care, cancer control and prevention and cancer policy together with outreach initiatives to provide solutions to the cancer problem affecting our region and our nation.

"Our vision is to be a leader and innovator in exploring the many avenues for a cure and improving a patients' quality of life," says Eduardo M. Sotomayor, MD, Director of the recently established GW Cancer Center.

"We have recruited basic, translational and population scientists from all across the country that are now working with engineers, computational scientists and clinicians under one roof. It fosters close collaboration and helps us offer an innovative interdisciplinary approach to studying cancer and to develop new treatments," he says.

"As part of our goal to become one of the National Cancer Institute's designated cancer centers, we're seeking not only excellence in research, but more importantly, we look forward to providing patients with world-class care, right here in the city where they live and work," he says.

A DRIVING FORCE IN IMMUNOTHERAPY

The new center allows researchers to focus on four scientific areas: cancer immunotherapy, cancer biology, microbial oncology, and cancer engineering and technology. "By understanding the limitations of the current generation of strategies that harness the immune system to destroy cancer cells (cancer immunotherapy), and learning how the immune system overcomes "tricks" that microorganisms use to avoid immune attack (microbial oncology), our goal is to improve the immunotherapies that exist, or create new ones," says Dr. Sotomayor. What excites him the most is the opportunity of working with engineers and computational scientists because of their innovative solutions to many types of problems, including biological ones. "We're also working with GW Hospital to build a state-of-the art bone marrow and immune cell therapy unit. With the recent recruitment of national leaders in cancer immunotherapy and blood cancers, we're well-poised to be the driving force in bone marrow transplant and immune cell therapy, including chimeric-antigen receptor (CAR) T-cells, in this region," he says.

The Center's new research laboratories are the "brain" for discoveries. It features 15 labs, 19 offices, 60 workstations and meeting areas. The clinical trials office is also located here to facilitate translation of these discoveries from bench to bedside (clinical trials).

For more information on the GW Cancer Center, visit cancercenter.gwu.edu. To learn more about the clinical trials currently in process, visit cancercenter.gwu.edu/research/clinical-trials/all.





A new implant option for MENISCUS TEARS

FIRST REPAIR IN THE REGION DONE AT GW HOSPITAL

eniscus tears are common injuries that usually occur when there is a quick twisting or turning of the knee, such as during sports activities, or when lifting and moving heavy objects. The injury occurs most in people between the ages of 20 to 40, however, older people can also be vulnerable to tears. Repairing the tear is not always possible, but a new collagen implant, the only one in the United States that is FDA approved, may be an option for younger patients with a severe tear.



Orthopedic Surgeon Rajeev Pandarinath, MD, says there are several degrees of tears – minor, moderate and severe. "With minor and moderate injuries, there may be some swelling and pain when you bend or twist your knee. But with a severe tear, your knee

may feel like it popped or locked up and there will be a lot of pain and swelling. Your knee may also feel unstable or wobbly. That's a big indicator you will probably need surgery to repair it," he says.

New implant option

Dr. Pandarinath says only specific types of meniscus tears are repairable. "If you remove a large piece of someone's meniscus, you have more stress on the bones. We try to repair what is torn, but we sometimes can't tell if repair is possible until we do the surgery," he says. "If the repair cannot be done, the collagen implant is used if appropriate for that situation. Not everyone qualifies for the implant, because there must be some remaining meniscus to grow around the implant, which acts like a scaffold."

GW Hospital is the first hospital in the region to use the implant since the FDA approved it in December 2016. "The implant is placed using an arthroscopic procedure that is minimally invasive," he says. "It has been used in Europe for more than 10 years with good results. We are excited about this new option, and we look forward to the results it can offer for our patients."

To learn more about orthopaedic care at GW Hospital, visit www.gwhospital.com/ortho.

Advanced SURGICAL SUR

Providing world-class medical care and using advanced technology is one of the hallmarks of GW Hospital. And with the recent implementation of sophisticated laser, robotic and virtual reality equipment, doctors can improve the ways they diagnose and treat patients, and offer services previously unavailable at the hospital. >



Advanced SURGICAL TECHNOLOGY

BRAIN TUMORS AND LESIONS



GW Hospital is using a form of thermal laser therapy to treat patients diagnosed with brain lesions and brain tumors. The precision laser is guided by an MRI and uses high heat to dissolve the lesion or tumor. "It is especially helpful for tumors deep within the brain," says **Jonathan Sherman**, **MD**, Director of Surgical Neuro-Oncology, Assistant Professor and

Neurosurgeon. "Using this form of treatment only targets the affected area, and not the healthy tissue surrounding it." The laser can be used in almost every location of the brain and is considered minimally invasive.

BRAIN SURGERY MEETS VIRTUAL REALITY

The term "virtual reality" may conjure up thoughts of video games for some people, but at GW Hospital, it is being used to help neurosurgeons plan brain surgery. They can view different surgical techniques to determine the best procedure that will help achieve the best outcome for the patient. The virtual system works based on MRI or CT scan images of the patient's brain that are loaded into the program to create a three-dimensional reconstruction. Dr. Sherman says by wearing a special headset, he can view the brain as if he were inside it. "It enables us to "fly through" and see all the intricate details and work through the surgery on the screen before we actually operate," he says. "This helps us confirm the course of action and also provides a map for surgeries involving brain tumors, aneurysms and arteriovenous malformations."

The virtual reality system is also a valuable tool for the patient. "When we review the images with the patient, they can see everything we're going to do. Knowing how the process is going to play out can be reassuring and help put them at ease," says Dr. Sherman.

To learn more about neurosurgical options, visit www.gwhospital.com/neuro.

A FLEXIBLE ROBOT FOR HARD-TO-REACH AREAS



GW Hospital is one of only six hospitals in the nation to have acquired it, and the first hospital in the region to use the flexible robot. **Arjun Joshi**, **MD**, an Associate Professor of Surgery in the Division of Otolaryngology, specializes in cancers of the mouth and surgery of the head and neck.



"This equipment enables us to better maneuver in the mouth and throat areas," says Dr. Joshi. "The flexible scope gives us a highdefinition view, and access to areas a straight-armed robot or regular instruments can't, such as the base of the tongue, the back of the throat

and the vocal cords." He recently used the equipment to treat cases of cancer of the tonsils and cancer of the pharynx. Dr. Joshi says surgery using the flexible robot is minimally invasive, and the patient can benefit from a shorter hospital stay, less recovery time and minimal blood loss.

For more information on diagnosis and treatment of head and neck tumors, visit www.gwhospital.com/ent.

* Individual results may vary. There are risks associated with any surgical procedure. Talk with your doctor about these risks to find out if minimally invasive surgery is right for you.

PATIENT-FRIENDLY PORTABLE DIGITAL X-RAY SYSTEMS

Portable X-ray machines have long replaced the days of wheeling a patient through the halls to get an X-ray. But the new machines at GW Hospital

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go one step further. Division Director of Radiological Operations, Mark S. Lerner, R.T., says the units are direct digital systems, which means that the image is visible right after it is taken. "Since the machines are sometimes brought right to the patient's room, it saves time, especially for trauma and surgical cases," says Mark.

The image is automatically loaded into the hospital's electronic record system, so physicians can view the image anywhere at any time. With this new equipment, radiation exposure is reduced by 30 to 40 percent. Also, the quality of the image is improved, providing a clearer picture and ultimately allowing for a better diagnosis. "We are always looking at ways in which we can improve the patient experience, and this is a step in the right direction," says Mark.

To learn more about the various imaging services at GW Hospital, visit www.gwhospital.com/radiology.



Joining forces to reduce impaired driving and traffic fatalities

The recent Vision Zero Summit in Washington, D.C. brought together policymakers, decision makers, safety advocates and experts to collaborate on ways to help reduce traffic fatalities in the region. The hospital was also selected to be the lead facility for a one-year grant from the District Department of Transportation (DDOT) in concert with Vision Zero DC.



"We are proud to be working with Vision Zero DC and local agencies in their mission to have zero traffic fatalities by 2024," says **Babak Sarani**, **MD**, **FACS**, **FCCM**, Director of Trauma and Acute Care Surgery and Co-Medical Director of Critical Care at GW Hospital, and Associate

Professor of Surgery at GWU School of Medicine. "We see a lot of fatalities involving pedestrians, bicyclists and motor vehicles here at the hospital," says Dr. Sarani.

According to the Metropolitan Washington Council of Governments, more than 2,600 people walking or biking in the region are injured yearly, and more than 425 people are killed. One of Vision Zero DC's messages is that traffic deaths and injuries are preventable, but it's everyone's job to get involved. There are currently more than 20 District government agencies joining together with Mayor Muriel Bowser to achieve the goals of Vision Zero DC.

Director of Trauma Services Lois L. Collins, RN, MSN, CEN, says they work with authorities on enforcement of intoxicated and impaired drivers. "Impaired driving is a public health problem," says Lois. "If someone is suspected of intoxication, we follow a process that allows law enforcement officers to obtain blood samples for their investigations,"she says.

Dr. Sarani says GW Hospital is also involved in the District's DUI task force and the Washington Regional Alcohol Program in the quest to make more of a difference in preventing fatalities in the community.

To learn more about injury prevention, visit www.gwhospital.com/trauma. For more information about Vision Zero DC, visit www.dcvisionzero.com.

Summer is here REMEMBER, SAFETY FIRST!



The warmer weather is here and many people are leaving the car at home in favor of riding a bicycle or walking to work. Injury Prevention and Outreach Coordinator Helaina Roisman, LGSW, says safety needs to be a priority, especially on the streets of such a busy city. "Approximately 11 percent of our injured patients are bicyclists or pedestrians, which is a significant number," she says. Helaina shares some helpful tips on how to stay safe on the streets and out of the ER.

BICYLISTS – WEAR YOUR HELMET!

- Wear a helmet and wear it correctly. Your local bike shop can make sure you have the proper fit – for free.
- If your helmet sustains damage or is involved in a crash, replace it with a new one.
- Make sure the helmet is certified by the U.S. Consumer Product Safety Commission (CPSC). This means the helmet meets federal safety standards.
- If you are involved in a bike accident, you should be evaluated. You could have internal bleeding or a concussion and not even know it.

PEDESTRIANS – STAY ALERT!

- When the light turns green, take a moment to make sure you are safe to cross. If a vehicle is going to run the light, it will most likely happen in the initial moments following the light change.
- LOOK AT THE SIGNS! There are three different jurisdictions in the DC, MD and VA area, and each one has different traffic laws. Roundabouts can be confusing for both drivers and pedestrians, especially tourists.
- Texting, talking on the phone or listening to music while walking in an urban setting increases your risk of being hit by a motor vehicle or bicycle. Avoid these behaviors when possible.
- When you are at a crosswalk, make eye contact with the driver to make sure they see you, and don't assume they will stop. ■

For more information on injury prevention, contact Helaina Roisman at 202-715-4210 or email her at helaina.roisman@gwu-hospital.com.

Did you know ...

Nearly 60% of bike accident deaths involve head injuries

... and in 2013:* Over 900 bicyclists were killed

About 494,000 ER visits were due to

bicycle-related injuries

4,/35 pedestrians were killed in traffic crashes

Over 150,000 pedestrians went to the ER for non-fatal crash-related injuries

To learn more about head injury prevention and traffic/ pedestrian safety, visit www.cdc.gov.

*cdc.gov

GIVING AND RECEIVING THE GIFT OF LIFE

GWU employee and a medical student become living kidney donors through the GW Transplant Institute

INTRIGUED BY A SPEECH

Sarah Miknis, a photographer for the GW School of Medicine and Health Sciences, is one of those living donors. After hearing Professor of Surgery and Chief of the GW Transplant Institute J. Keith Melancon, MD, FACS, speak about kidney donation at an event,



Sarah decided to become a donor. "I was excited about how quickly a recipient was identified and the surgery was scheduled," says Sarah. **Thomas Jarrett, MD**, Chair of the Department of Urology at GW Hospital and Professor of Urology at The GW School of

Medicine and Health Sciences, removed one of Sarah's kidneys and Dr. Melancon implanted it into Jose Reyes.

Sarah went home after two days with only mild discomfort for a few days. She says she feels great and has no residual effects. "If you are in good health and want to be a donor, you should do it. This has been very rewarding because I was able to change someone else's life for the better," says Sarah. Jose Reyes had a long history of battling diabetes and kidney problems, and was diagnosed with stage 4 kidney failure. He signed up for the GW Transplant Institute list, and after a few months, he received the call that would change his life forever. "They told me I met the

A LIFE SAVED



Jose Reyes (L) and Sarah Miknis (R) met for the first time on January 6, 2017. "She's an angel," says Jose.

criteria as a kidney recipient, and that I was going to get a new kidney. I am so grateful for the excellent care I received at GW Hospital and by Dr. Melancon and the nursing team," Jose says. "But mostly, I am forever in debt to Sarah for her kidney donation because it saved my life!"

Many people with kidney disease do not find out they have it until it is advanced. Established in 2015, The Ron and Joy Paul Kidney Center works with GW Hospital to address the urgent need in the DC area for increased awareness of kidney disease prevention, diagnosis, treatment options and kidney donation.

Ron and Joy Paul Kidney Center

For more information about kidney disease and how to get tested, visit GWKidney.org or call 202-715-4330.



ccording to the National Kidney Foundation, more than 17,000 kidney transplants take place every year, yet there are more than 100,000 people waiting for a kidney. "Most people who need a kidney will never receive one," says **J. Keith Melancon, MD, FACS,** Professor of Surgery and Chief of the GW Transplant Institute. "That's why we work hard to raise awareness about living donors, and we have the resources here at GW Hospital to help so many people. The recent increase in donors has made a positive impact in the lives of many," he says.

INSPIRED TO DONATE

Jacob Lambdin, a third-year medical student at the George Washington University School of Medicine and Health Sciences, was inspired to consider kidney donation during his two-week surgical rotation. "The seed was planted, and I signed up to learn more," he says. Jacob started the evaluation process and was surprised how quickly he was evaluated and matched. One of his kidneys went to Andrew Lewis, whose hereditary kidney disease was rapidly



Jacob Lambdin (L) and Andrew Lewis (R) were excited to meet each other. "Jacob saved my life," says Andrew.

progressing. After the surgery, Jacob says he felt completely back to normal, and only needed minimal pain medication. "I feel no different than before I donated. We have two kidneys, and I was happy to give one of mine to help someone else live a longer life."

AVOIDING DIALYSIS IN THE KNICK OF TIME

Andrew Lewis' kidney function was steadily declining and his doctor sent him to GW Hospital to see if he qualified for a kidney transplant. He was placed on the transplant list, but in the meantime, his doctor wrote an order for a port implant for dialysis. Andrew was on his way to the dialysis center when he received a call from the transplant coordinator at GW Hospital. "She told me they have a possible donor and to hold off on getting the port. I was literally a few days away from having it done!" he says.

Andrew received Jacob's kidney and says the care at GW Hospital was the best he'd ever encountered. "I felt good as new in a couple of weeks, and I am so thankful. I didn't feel like a patient, I felt like a family member," he says.

The donors and recipients meet for the first time

Mere weeks after their surgeries, emotions ran high when Sarah met Jose and Jacob met Andrew for the first time on January 6, 2017. All were grateful for the experience and continue to stay in touch, as well as share their stories with others to promote living kidney donation.

To learn more about the GW Transplant Institute, visit www.gwhospital.com/transplant.



Transplant Institute THE GEORGE WASHINGTON UNIVERSITY HOSPITAL

"Suddenly, I couldn't BREATHE."

- Julia Shelton

ulia Shelton, a motorcycle enthusiast, was looking to relieve her lupus symptoms by taking the stairs and walking more. She noticed she was coming down with a cold and took some medication, but nothing helped. Then she started feeling heaviness in her chest and was out of breath just talking. She went to her local ER, where an X-ray was negative for pneumonia, and she was sent home with an inhaler, prednisone and an antibiotic.

Julia was fine for a few days, then started having difficulty breathing again. She went back to her local ER and was admitted. She was put on oxygen, but her condition was worsening. Her husband, Kevin, decided to contact Rheumatologist Rodolfo Curiel, MD, who treats Julia for lupus, and explained the seriousness of her symptoms. Dr. Curiel was concerned about possible complications and ordered her transfer to GW Hospital. She was given oxygen and monitored, but her vital signs were unstable. A few days later, she suddenly couldn't breathe. That was the last thing she remembers.

> Julia was placed in a medically induced coma in the ICU for two days and connected to an Extracorporeal Membrane Oxygenation (ECMO) machine for twenty days. "Julia had pneumonia and her lungs were failing. ECMO was her only chance for survival," says Cardiac Surgeon Elizabeth Pocock, MD. "This technology allowed her lungs to rest and recover."

"My husband and I usually ride our motorcycles in the Rolling Thunder ride, and I was not able to go. My husband brought my helmet in to help motivate me to get better," says Julia. "If it wasn't for Dr. Pocock, Melody, and the rest of the fantastic nurses and doctors here at GW Hospital, I would not be alive today," says Julia. "Thanks to them, I can now join my husband on our motorcycle adventures."

What is ECMO?

ECMO is a specialized treatment that uses a bedside partial cardiopulmonary bypass machine that acts as the heart and lungs. ECMO does the work of the heart and lungs and pumps blood and oxygen through the body while a person recovers from various conditions. Patients who may benefit include those with pneumonia, flu, blood clots in the lungs (pulmonary embolism), heart failure or trauma.

"We have a mobile cannulation/transport team that partners with community hospitals," says ECMO Coordinator Melody Ricks, RN, CCRN. "We stabilize the patient and transport them back to GW Hospital, all while connected to the ECMO unit. This mobile capability is helping to save people who otherwise wouldn't have a chance."



Julia Shelton (R) and her husband, Kevin (L), enjoy time together riding their motorcycles.

For more information on the comprehensive cardiopulmonary services offered at GW Hospital, visit www.gwhospital.com/cardio. To learn more about ECMO, visit www.gwhospital.com/ecmo.

DEFINING Moments

GW Hospital patients share their lifesaving experiences

me hope for the future." - James Jean-Claude

As a former football and rugby player, James Jean-Claude was all too familiar with muscle and joint pain. He started noticing minor back pain, but brushed it aside and dealt with it by taking over-the-counter medications. The pain got progressively worse,

to the point of radiating down his back and legs, making it difficult to bend his knees

GW Hospital has given

A few weeks later, he experienced worsening symptoms in his hands, and greater difficulty walking. Thinking he was having a possible stroke, James went to the ER at GW Hospital. Doctors ruled out both a heart attack and stroke, and referred him to a neurologist, who saw some unusual reactions to reflex tests and ordered an MRI of

James' neck and spine. The results led him to Neurosurgeon Michael K. Rosner, MD, Vice Chairman, Department of Neurosurgery at GW Hospital. Dr. Rosner met with James and expressed his concern about the MRI results. "Dr.

Rosner told me I had spinal stenosis and that three vertebrae were compressing my spinal cord. He said surgery is always a last resort, but I was beyond conservative treatment. My *defining moment* was when he told me he was just trying to prevent

paralysis and keep me out of a wheelchair," says James. Dr. Rosner says the damage to James' spinal cord was critically severe and correlated

with the damage demonstrated by his MRI. "There are never any guarantees with surgery, but he is one of the lucky few to have regained a lot of function, " says Dr. Rosner. "This procedure enabled us to stop any further damage from occurring, and

James noticed a significant difference in his pain levels afterward." James says the care he received from the doctors, nurses and therapists at GW

Hospital was extraordinary. "It was so convenient to have my doctor, surgery and rehab all in one system. I can't imagine what my quality of life would be without having had this procedure. Everyone took such great care of me!" says James. "I recently finished my therapy and I now have hope for my future."

To learn more about spinal conditions and treatments, go to www.gwhospital.com/spine.



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