

# 1 healthy together

CANCER CARE  
A NEW ERA

SAFER  
PREGNANCIES

TOP TIPS FOR A  
HEALTHIER  
WEIGHT

GROUNDBREAKING  
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*Heart  
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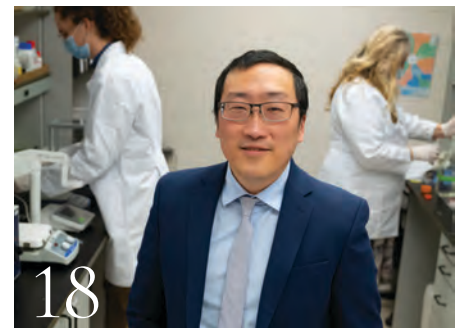
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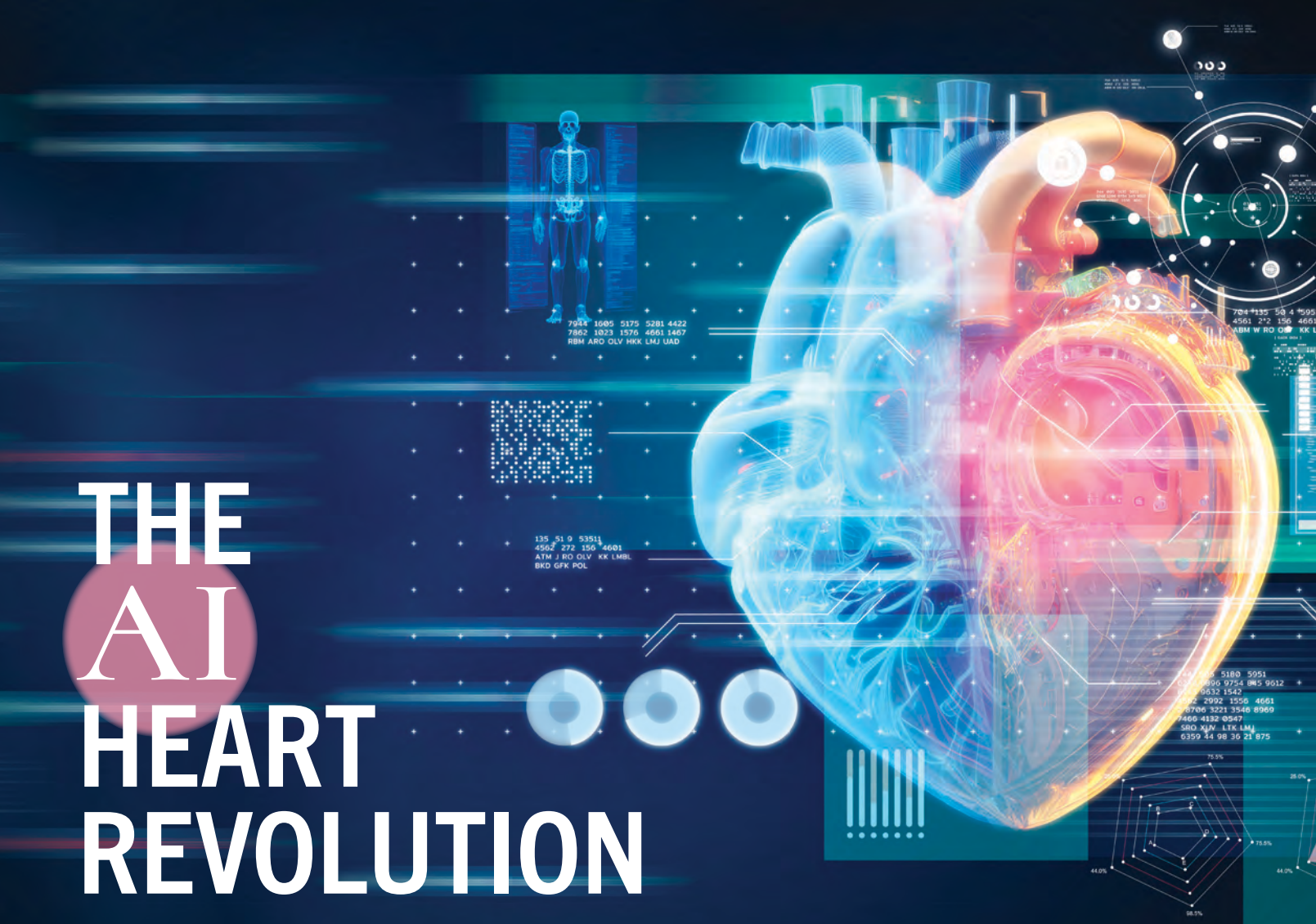
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# THE AI HEART REVOLUTION

## 5 TANGIBLE WAYS THAT TECHNOLOGY IS TRANSFORMING CARDIAC CARE

Heart disease remains the leading cause of death for both men and women, but emerging technologies like artificial intelligence (AI) are creating substantial opportunities for a healthier future.

“Similar to the way genomics has advanced cancer care, the emergence of AI is allowing cardiologists to reimagine everything we know about how the heart works and how we care for it,” says Partho Sengupta, MD, Chief of



PARTHO SENGUPTA, MD

Cardiology, Robert Wood Johnson University Hospital (RWJUH); Henry Rutgers Professor of Cardiology and Chief of Cardiovascular Medicine, Rutgers Robert Wood Johnson Medical School; and a member of RWJBarnabas Health (RWJBH) Medical Group.

Dr. Sengupta has a front-row seat for this technological revolution. He’s co-leader of the Center for Innovation at RWJUH, a pioneering initiative focused on research-based development, testing and implementation of digital solutions that can improve care throughout the RWJBH system.

“While AI is a major focus, I prefer to define AI as ‘augmented intelligence,’” Dr. Sengupta says. “That’s because we


will never use AI to replace doctors, nurses and caregivers. Instead, we’ll use it to augment their work.”

Dr. Sengupta and his team are using or evaluating technologies that promise to deliver key benefits to heart patients, including:

**1 FINDING THREATS SOONER** AI allows doctors to more quickly identify structural heart defects, find symptoms of heart failure and detect evidence of heart attacks.

Medical teams accomplish this in part through different types of imaging, using AI-driven algorithms and deep learning capabilities to view X-rays, ultrasounds, CT (computed tomography) scans and



  
No one plans on heart disease, but everyone should have a plan for it. To connect with an RWJBarnabas Health heart and vascular specialist, call 888.724.7123 or visit [www.rwjbh.org/heart](http://www.rwjbh.org/heart).

MRIs (magnetic resonance imaging scans) of the heart.

“With imaging techniques, doctors can perform a greater variety of standardized measurements within heart images, which helps predict heart disease sooner,” Dr. Sengupta says. “This gives us a huge opportunity to care for heart conditions before they become more serious.”

In some cases, improved imaging helps doctors prevent emergencies. By using AI in a type of scan called fractional flow reserve CT, for example, doctors create a highly accurate, 3D model of a patient’s coronary arteries that can both detect blockages and assess their significance. Information from this

technology has already led some patients back from the brink of a heart attack.

On the horizon: Doctors may use AI to augment the interpretation of subtle changes in EKGs (electrocardiograms) as a screening tool, potentially for early detection of heart disease, even predicting when heartbeats could become irregular (arrhythmias).

## 2 ANALYZING IMAGES

Researchers are exploring ways that large amounts of data from advanced imaging combined with machine learning can analyze pixels of cardiac images that might otherwise be invisible to doctors. This capability to analyze pixel-level information, called radiomics, trains AI algorithms to detect subtle patterns that indicate the presence of certain heart conditions.

“For example, cardiac ultrasounds, CT scans and MRIs give us images in 256 shades of gray, but the human eye can’t see all those shades,” Dr. Sengupta says. “Radiomics could enhance information related to gray-level distributions, potentially enabling us to indicate the presence of scar tissue or damaged heart muscle more precisely.”

## 3 BOOSTING SAFETY

AI can serve as a double check for physicians and other heart care professionals, enhancing accuracy when diagnosing and treating complex conditions.

One example is detecting aortic stenosis, a narrowing of the aortic valve. “It’s a complicated presentation that can be missed on EKGs,” Dr. Sengupta says. “AI could develop alerts that automatically detect stenosis and flag it.”

Similarly, natural language processing, a type of AI that allows computers to understand human commands, could be used to help review medical records and notify doctors about underlying health conditions that factor into a patient’s care. As a result, providers could develop more personalized and safer treatment plans.

Also under review are solutions that integrate AI into remote patient monitoring. These tools provide continuous observation, transmit key vital signs to providers and flag anomalies, helping patients go home from the hospital sooner and achieve a faster, safer recovery.

## 4 SIMPLIFYING CARE

Technology is bringing efficiencies directly to patients. For example, some RWJBH outpatient cardiology practices use pocket ultrasound, a technology that allows doctors to see heart images on an iPhone during a patient visit, enabling physicians to offer immediate guidance on cardiac health.

Researchers are also investigating whether technology can help ultrasounds better identify dead heart tissue that indicates a heart attack. “If successful, this could allow more people to get ultrasounds in the office and receive appropriate referral for MRI, while reducing unnecessary tests in many,” Dr. Sengupta says.

Similarly, RWJBH researchers are looking into the use of handheld infrared devices that can see through the surface of the skin and identify molecules that indicate the presence of a blocked artery. “By detecting conditions like this quickly, we can get patients to the ER faster,” Dr. Sengupta says.

## 5 IMPROVING OFFICE VISITS

The doctor-patient relationship is at the center of successful heart care, and AI is helping providers spend more face time with patients. Advances such as automated dictation can free physicians from manual documentation tasks, allowing them to look less at a computer screen during office visits and spend more time delivering detailed health guidance and coaching.

“By using technology to make providers more efficient, doctors can create more meaningful conversations with patients, building empathy and trust,” Dr. Sengupta says. “As a result, patients get a better experience and doctors can perform more critical thinking and problem-solving—the tasks that make them feel more fulfilled.”



# A NEW ERA FOR CANCER CARE

**NEW JERSEY'S FIRST FREESTANDING CANCER HOSPITAL  
WILL BE 'TRANSFORMATIONAL' WHEN OPEN THIS SPRING.**

**F**or many people in New Jersey, cancer is distressingly familiar. “Over 50,000 of our residents are diagnosed with cancer each year, and New Jersey ranks sixth in cancer incidence in the U.S.,” says Steven Libutti, MD, FACS, the William N. Hait Director of Rutgers Cancer Institute and Senior Vice President of Oncology Services at RWJBarnabas Health (RWJBH). “Cancer is a big problem in our state.”

Now RWJBH, together with Rutgers Cancer Institute—the state’s only NCI-designated Comprehensive Cancer Center—is on the cusp of opening New Jersey’s first freestanding cancer hospital. Called the Jack & Sheryl Morris Cancer Center, the new facility in New Brunswick is a landmark development for cancer care throughout the region.

The state-of-the-art 12-story, 520,000-square-foot center, named for philanthropist Jack Morris and his wife,

Sheryl, is slated to open this spring. It will provide cutting-edge, comprehensive cancer diagnosis, research, treatment and support services all under one roof and promises to reshape the patient experience for countless families touched by potentially life-threatening illness.

“Opening the Morris Cancer Center is going to be transformational,” Dr. Libutti says. “Only a handful of similar facilities exist nationwide.”

## **PUTTING PATIENTS FIRST**

Key to the vision for the center is its concentration of services in a single

building. “We’re providing a place and environment where experts together are focusing entirely on cancer and the patient experience,” Dr. Libutti says.

Each stage of the patient’s cancer journey, whether inpatient or outpatient, will be addressed on-site, from early diagnosis through treatment and survivorship. Services available within a few elevator stops will include imaging, surgery, radiation oncology, medical oncology, chemotherapy, clinical trials and highly specialized advanced treatments such as cellular therapies, along with layers of support services.

Having all services together makes care convenient for patients, minimizes travel and eases navigation through often complex treatments. “Making care more efficient is better for the patient experience and promises to improve outcomes,” Dr. Libutti says.

Dozens of nurse navigators will guide patients through their journeys, offering a main point of contact and a knowledgeable bridge to diverse providers.

Concentrating services will also promote collaboration by multidisciplinary teams that include not only clinicians but also researchers conducting groundbreaking clinical trials and research in state-of-the-art laboratories.

“Hallway conversations can help lead to new therapies,” Dr. Libutti says. “We’ll have easy sharing of information and ideas about ways to attack cancer’s vulnerabilities.” The fusion of top-notch facilities, advanced expertise and innovative treatment further promises to attract even more world-class physicians.

Patient-first priorities steered the center’s conception, design and construction. “There was a lot of conversation about what the cancer journey looks like for patients and how to coordinate touchpoints along the way,” Dr. Libutti says.

That meant more than having an advanced physical facility. “We also wanted the best workflows



STEVEN LIBUTTI, MD, FACS

## A STATEWIDE VISION

The new Jack & Sheryl Morris Cancer Center anchors a broader strategic vision for RWJBH cancer care throughout New Jersey. “Patients do better when they have services and support close to home,” says Steven Libutti, MD, FACS, the William N. Hait Director of Rutgers Cancer Institute and Senior Vice President of Oncology Services at RWJBarnabas Health (RWJBH). “Our goal is that no person in New Jersey will be more than 15 minutes from an access point for our exceptional, comprehensive cancer care.”

Contributing to that goal will be the new Melchiorre Cancer Center at Cooperman Barnabas Medical Center in Livingston, due for completion in late 2025, and the Specialty and Cancer Care Center at the Vogel Medical Campus in Tinton Falls, due to open in late 2026.

“The Melchiorre Center will be the centerpiece of cancer care in RWJBH’s northern region,” Dr. Libutti says. “It will offer concentrated expertise and co-located primary-to-tertiary cancer care all under one roof.

“Our investment in campuses that are strategically positioned throughout the RWJBH system is unprecedented and unparalleled,” Dr. Libutti adds. “We’re committed to addressing cancer across the spectrum and easing the burdens for patients.”

and practices to make the patient experience as efficient as possible,” says Susan Solometo, Senior Vice President of Administration, Oncology Services, at RWJBH. “We’re striving to optimize everything around the patient.”

## FORM AND FUNCTION

The blending of sophisticated design and efficient function will be evident upon stepping through the center’s doors. “The building itself promotes processes we want to implement to make things easier for patients,” Dr. Libutti says.

For example, patients using the MyChart electronic medical records portal can complete much of their registration before coming to an appointment. “When patients arrive, this will allow check-in and printing of a pass at a kiosk similar to those at airports,” Solometo says. “Patients who return frequently for treatments won’t have to go through an elaborate check-in and registration process every time.”

An advisory council of patients and families contributed insights on matters from the organization of the building and floors to workflows, amenities and even furniture and finishings.

In addition to new infrastructure such as nine operating rooms and an additional 10 research laboratories, the center will include a demonstration kitchen, a physical therapy gym and adjacent parking. Space is allocated for integrative medicine services such as Reiki and art,

music and pet therapies. A boutique area will include services for styling wigs or hair, buying lymphedema garments and getting a manicure and pedicure.

The building’s soaring atrium will include design elements such as a staircase styled like a cancer ribbon and art/media installations. “There will be a calming aspect to entering the building,” Solometo says. “Our hope is that patients may, even for a moment, forget why they’re there.”

Learn more about the Jack & Sheryl Morris Cancer Center at [www.cinj.org/themorris](http://www.cinj.org/themorris).



## BEAT CANCER

RWJBarnabas Health, together with Rutgers Cancer Institute—the state’s only NCI-designated Comprehensive Cancer Center—provides close-to-home access to the most advanced treatment options. To schedule an appointment with one of our cancer specialists, call **844.CANCERNJ** or visit [www.rwjbh.org/beatcancer](http://www.rwjbh.org/beatcancer).

To learn more about cancer care at RWJBarnabas Health, visit [www.rwjbh.org/beatcancer](http://www.rwjbh.org/beatcancer).



# A BREATH OF FRESH AIR

## AN INNOVATIVE SURGERY ALLOWS A CHILD WITH A LIFE- THREATENING DISORDER TO BREATHE ON HIS OWN.

**Y**vette Barnett-Somers of Essex County was elated when she found out she was pregnant with her second child in 2019. “I’d planned for him,” says Yvette, who already had a 13-year-old daughter, Brianna.

Yvette had been under the care of an infertility specialist at Newark Beth Israel Medical Center (NBI), where she worked as a certified surgical technologist. “I had genetic testing and

all my ultrasounds,” she says. “Everything came back great.”

Her due date was April 21, 2020. But 25 weeks into her pregnancy, her water broke. She was hospitalized at NBI for 12 days before giving birth to her son, Bryce Chance Somers, on January 21, at just 27 weeks.

“He weighed only 2 pounds, 2 ounces,” says Yvette. “He was a peanut.”

After being born premature, Bryce was intubated in the neonatal intensive care unit (NICU) at Children’s Hospital of New Jersey (CHoNJ) at NBI, part of the Children’s Health network at RWJBarnabas Health. His lungs collapsed several times. Doctors worried that something even more serious might be

wrong. “He was floppy,” Yvette says. “He wasn’t able to suck, and he was very limp.”

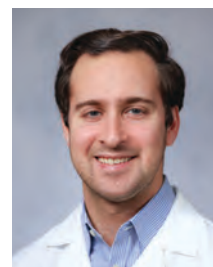
Tests probed the cause, and the neonatology team—concerned because of what the symptoms might mean—discovered that Bryce had Prader-Willi syndrome, a rare and complex genetic disorder marked by physical, mental and behavioral difficulties.

### LIVING LIFE, WITH HELP

Key features of Prader-Willi syndrome include hyperphagia, or an incessant and insatiable hunger; hypotonia, or poor muscle tone; distinct facial features; a poor sucking reflex; poor responsiveness; and certain forms of physical underdevelopment.

“I was told that Bryce would never be able to live independently, drive or have children, and he would not be able to get off of the ventilator,” Yvette recalls.

Bryce remained in the NICU



**BRIAN MANZI, MD**



Bryce Chance Somers, born with a rare genetic condition, has made significant progress since a highly specialized surgery allowed the removal of a breathing tube he'd had most of his life.

and, at 4½ months, as the COVID-19 pandemic was raging, underwent surgery in which he was given a tracheostomy—sometimes referred to as a trach—and a feeding tube called a G-tube.

After the procedure, Bryce was transferred to Children's Specialized Hospital (CSH) in New Brunswick. Both CSH and CHoNJ are part of the Children's Health network at RWJBarnabas Health. "The whole staff is truly amazing," says Yvette. "I lived at CSH with Bryce, and they taught me how to care for him—how to bathe him, suction and change the trach, perform trach CPR and administer his medications through the G-tube."

Initially on full ventilator support, Bryce was gradually weaned off this assistance. "Eventually, he went home with just a trach," Yvette says.

When Bryce was released, Yvette needed to continue working—but at a job that would allow her to care for Bryce. NBI's human resources department reassigned her to a receptionist role that would be more flexible than her previous surgical position. "I am so grateful to them," Yvette says.

### A SCARE—THEN HOPE

At first, Bryce's life at home went as well as could be expected. But in summer 2022, Yvette was helping her daughter, Brianna, prepare for her sweet-16 party when Bryce suddenly stopped breathing.

Yvette began CPR while Brianna called 911. Bryce was taken by ambulance to CHoNJ and admitted into the pediatric intensive care unit (PICU). "I didn't think he would make it," Yvette says. "While he was in the hospital, I got a heart tattoo in the same place as his trach, as a symbol of my love for him."

Bryce continued to have intermittent successes and struggles over the next two years. By spring 2024, he'd had eight surgeries in his short life. But he was also well enough to undergo a milestone, innovative procedure that held out a seemingly impossible promise—that he might breathe without assistance.

"Without this procedure, Bryce

would've had to live his life with his trach," says Yvette.

It would be only the second time the complex and highly specialized surgery, called a laryngotracheal reconstruction (LTR), had been performed at CHoNJ. Pediatric otolaryngologist Brian Manzi, MD, performed the six-hour surgery on May 9.

"This procedure requires a highly skilled team encompassing coordination between specialized pediatric anesthesiologists and pediatric otolaryngologists to share and repair the airway intraoperatively, as well as high-level neonatal and pediatric intensive care units to manage the pre- and post-care," Dr. Manzi says. "The surgery itself entailed removing the diseased portion of Bryce's windpipe and replacing it with a thumb-size length of cartilage from a right rib."

After his surgery, Bryce stayed at CHoNJ until June 4, then transferred to CSH for several weeks of rehabilitation. "Bryce's rib cartilage will regrow," says Dr. Manzi. "Now his airway is completely open, and he is breathing on his own without obstructions."

By the time he was discharged, Bryce was also sitting independently, bearing weight and walking.

Bryce made an impression on CSH caregivers. "I worked with Bryce when he was a tiny baby in a big crib, with so much equipment," says Charli Nobles, a child life specialist at CSH. "And I was working with him when he walked himself right out of our hospital."

Yvette considers his successful surgery and impressive recovery nothing short of a miracle. "He wouldn't be here without God, prayers and the talented and amazing teams at CHoNJ and CSH," she says.

January 21 marked Bryce's fifth birthday—"and his first birthday trach-free," says Yvette. The guest list for a birthday party included members of his numerous medical teams over the years.

"I'm so thankful for them," says Yvette. "Without them, there would be no Bryce."

To learn more about the Children's Health network at RWJBarnabas Health, visit [www.rwjbh.org/childrenshealth](http://www.rwjbh.org/childrenshealth).



# PREGNANCY AND YOUR HEART



## NATURAL BODILY CHANGES CAN BOOST CARDIAC RISKS. HERE'S WHAT TO DO ABOUT IT.

**D**uring pregnancy, it's natural and important to focus on your baby's health. But it's just as important to focus on your own health. Complications that can arise as your baby develops don't just affect your well-being while pregnant. They can also have long-term effects that may boost future

risks of developing serious conditions, especially heart disease.

"Pregnancy can be seen as a stress test on a woman's heart and circulatory system," says Eman Rashed, MD, PhD, cardiologist, Advanced Heart Failure



EMAN RASHED, MD, PHD

Treatment and Transplant, at Newark Beth Israel Medical Center and a member of RWJBarnabas Health Medical Group. "Significant changes occur in the body that put

extra strain on the heart. Most moms will do well, but even some healthy women can experience heart problems or complications related to pregnancy that increase their cardiovascular risks down the road."

## WHAT RAISES RISKS

A number of impressive changes occur to the body during pregnancy. For example, the blood volume of a pregnant female can increase by almost 30 to 50 percent over baseline levels. To accommodate the added volume, the size and structure of blood vessels increase in both the placenta and mother.

Heart rate can increase by almost 20 beats a minute. Pregnancy also boosts the blood's propensity to clot, which protects against significant bleeding after delivery. These changes will usually normalize once the baby is delivered.

Most women can adapt to these pregnancy changes without significant consequences, whereas in other women, these changes may exacerbate an existing condition or trigger development of a new cardiac condition. This can lead to serious cardiac complications not only during pregnancy but in the time after delivery.

Peripartum cardiomyopathy, or a weakening of the heart muscle that can lead to heart failure, is one of the most dreaded cardiac complications of pregnancy. Risk factors include having an age over 35, a history of hypertension (high blood pressure), gestational diabetes and multi-fetus pregnancies.

"It's important to recognize when a woman is experiencing symptoms such as shortness of breath, fatigue, difficulty walking or lower extremity swelling that may seem out of proportion to what would be expected of a 'normal' pregnancy," says Dr. Rashed. "Talk to your doctor immediately if you have any concerns."

Another complication is preeclampsia, a form of hypertension that often develops in the second half of pregnancy or after birth. Preeclampsia is marked by elevated blood pressure along with high levels of protein in urine and impaired function of small blood vessels throughout the body. Untreated, it can harm the baby and lead to serious, even life-threatening, organ malfunctions in the mother.

A further common complication is gestational diabetes, a condition in which hormonal changes elevate blood glucose (sugar). High blood sugar often dissipates after childbirth, but having gestational diabetes boosts your risks of later on having Type 2 diabetes and heart disease.

Gestational diabetes and preeclampsia, along with other types of hypertensive disorders during pregnancy, are on the rise. These disorders are linked

with an increased risk of developing cardiovascular problems later in life such as hypertension, heart attacks, heart failure, stroke and peripheral vascular disease. Risks are especially high for non-Hispanic Black women.

Heart problems are a bigger concern than many women realize. "Heart disease kills more women than all cancers combined," Dr. Rashed says. "What's even more striking, women with heart trouble have worse short-term and long-term outcomes than men. It's so important to listen to your body and advocate for yourself if you feel like something is not right."

Women often delay seeking care for cardiac symptoms, which can manifest differently than in men, and doctors can sometimes be slower to test and diagnose women. Any delays can result in more heart muscle damage.

## HOW TO STAY HEALTHIER

Certain factors that contribute to complications during pregnancy can't be controlled. For example, women are more prone to develop problems such as preeclampsia and gestational diabetes with age.

But many risk factors and conditions can be modified, treated or controlled through lifestyle changes or medications. Here are some key ways to keep your heart and blood vessels healthy during pregnancy and beyond.

### • Take your history into account.

Greater awareness of risks is the first step toward minimizing them. Women with preexisting heart disease may experience worsening of their condition and have more severe signs and symptoms during pregnancy, labor, delivery and beyond. "Mothers who have preexisting heart disease such as heart failure, hypertension and diabetes are at higher risk of experiencing complications during pregnancy," says Dr. Rashed. "It's important to discuss with your obstetrical team if you have had any complications during a previous pregnancy."

### • Be alert to signs of trouble.

Changes in body function are normal during pregnancy, but let your doctor know right away if you experience any symptoms associated with cardiovascular problems, especially if symptoms are severe.

Red flags include sudden swelling of feet, hands, ankles or arms; lightheadedness or fainting; unusual fatigue; chest pain; extremely fast heart rate; shortness of breath; persistent coughing; an increased need to urinate at night; or sleep difficulties.

### • Practice healthy habits.

Abstaining from alcohol and not smoking are two important ways to reduce risks. But in addition to avoiding harms, take positive steps to build better health.

Eat a heart-healthy diet rich in vegetables, fruits, protein, whole grains and healthy fats. Exercise under your doctor's supervision to help strengthen your heart, improve cholesterol balance, manage blood sugar, control blood pressure and make progress toward any weight-reduction goals. Strive to reduce stress with measures such as physical activity, mindfulness or relaxation techniques, adequate sleep and socializing with other people.

Continue practicing these healthy habits after the baby is born.


### • Get screened.

To assess heart risks, your doctor will take a careful medical history, review your symptoms and perform a physical examination. But you may need further tests to find out how a heart condition is affecting your pregnancy. These might include an echocardiogram, which uses ultrasound to look inside the heart, and/or an electrocardiogram (EKG), which measures electrical activity during your heartbeat.

If your obstetrician recommends you see a cardiologist, be sure to follow up right away, and keep visiting all the specialists on your medical team throughout your pregnancy and postpartum years.

To learn more about comprehensive women's health services available through RWJBarnabas Health, visit [www.rwjbh.org/womenshealth](http://www.rwjbh.org/womenshealth).



A full-page photograph of April Coleman, a Black woman with dreadlocks and red glasses, wearing a bright orange tunic with fringe and blue jeans. She is walking on a paved path next to a chain-link fence, with a large bridge and water in the background.

April Coleman has become more active since a knee replacement surgery relieved pain that had hindered her movement.

# PAIN-FREE WITH A NEW KNEE

FRUSTRATED BY JOINT AGONY, A WOMAN FINDS  
A SURGEON WHO LISTENS—AND HELPS.

For April Coleman, discovering that her orthopedist didn't accept her new insurance turned out to be a blessing in disguise.

The mother of two from Bayonne had suffered from increasingly debilitating knee pain for 10 years. "It started with a meniscus tear," she says, referring to cushioning tissue in the joint. The tear was repaired, but two years later, new pain



RAPHAEL LONGOBARDI, MD

led to a diagnosis of arthritis. By 2020, she couldn't bend her right leg without extreme pain.

Cortisone injections helped ease her discomfort, but only for a week or two. When April turned down opioid pain medications, her orthopedist suggested she lose weight. "I was saying, 'You don't understand; I'm in excruciating pain,'" she recalls.

The doctor dismissed her pain because it didn't prevent her from working, and told her she was too young for knee replacement surgery. "I felt like he wasn't listening to me," she says.

That's when her insurance carrier

changed—and she needed to look for a new doctor.

## 'HE LISTENED TO ME'

April's search revealed one doctor who stood out: Raphael Longobardi, MD, FAAOS, an orthopedic surgeon and a member of RWJBarnabas Health Medical Group.

"I was truly impressed with his credentials and reviews," she says. At a March 2023 appointment, she saw why Dr. Longobardi got high marks: "He was knowledgeable, he listened to me, he validated me, he walked me through everything and he explained



my condition and my treatment options without being condescending,” she says.

From her X-rays, symptoms and history, Dr. Longobardi confirmed that April had osteoarthritis. He explained that this degenerative disease results from the wearing down of articular cartilage, a smooth cushioning material that covers the ends of bones where they meet to form joints.

“Dr. Longobardi said, ‘Yes, losing weight will help you, but that’s not the reason for your pain,’” says April.

He started her on a physical therapy regimen to improve her strength and mobility, and prescribed an oral anti-

inflammatory medication for pain. This was followed by a cortisone injection, which didn’t help.

“The next step would typically have been a gel injection, but April did not want to do that, so we discussed surgery,” says Dr. Longobardi.

April was given details about the procedure and underwent tests to receive clearance for a knee replacement, which was scheduled for August 30, 2023, at Cooperman Barnabas Medical Center.

Despite knowing that the operation promised to relieve her pain, April was nervous. “Dr. Longobardi took my hand and said, ‘Don’t worry, everything is going to be just fine,’” says April. “That helped ease my fears.”

### MOBILE AND ACTIVE

The surgery was completed in under two hours. “I did it in the traditional way with intramedullary guides, where we put a rod into the tibia [shinbone] and one into the femur [thighbone],” Dr. Longobardi says. “Based on that, we realign the surfaces to put them in a more optimal position so the leg is straighter.” With surgery scheduled late in the day, April stayed in the hospital overnight.

“When I woke up, I had a nurse right by my side,” says April. “The nurses were amazing—they took great care of me.”

Most knee replacement patients are mobile with the help of a walker and crutches for about two weeks, followed by two weeks with a cane and no assistive device after that, Dr. Longobardi says. Within three months, patients typically resume regular activities, depending on how physically active and conditioned they were before surgery.

“April had hip-muscle weakness but stayed with the physical therapy program and did really well,” says Dr. Longobardi. “We worked on strengthening her hip and thigh muscles, and her hip and back pain also got better.” She underwent additional physical therapy after Dr. Longobardi removed dead fat tissue that

## ARE YOU TOO YOUNG FOR A KNEE REPLACEMENT?

Professional organizations such as the American Academy of Orthopaedic Surgeons issue no absolute age restrictions for knee replacement surgery. The decision should be based more on a patient’s level of disability, pain and joint damage than on age alone.

Yet while prosthetic materials and technology have seen many advances, knee implants have a finite lifespan. “All implants eventually wear down, which would necessitate having a revision knee replacement,” says orthopedic surgeon Raphael Longobardi, MD, FAAOS.

At younger ages, the odds of needing a revision surgery later in life go up. As a rule, Dr. Longobardi says, 50 is the youngest age he would consider a patient to be an appropriate candidate for knee replacement surgery. Exceptions can include cases in which relatively young patients have unusually severe rheumatoid arthritis and/or bone-on-bone joint damage.

“If you get a primary knee replacement at 60, there’s a good chance it will be the only operation you’ll need,” says Dr. Longobardi.

Patients younger than 50 can benefit from other treatment options. “These include procedures that use biologic materials such as osteochondral [bone and cartilage] transplants and meniscal transplants [which use donor tissue],” Dr. Longobardi says.

had triggered an infection, which was treated with antibiotics.

“Dr. Longobardi said he would make me feel better—and I do,” says April, who has become an enthusiastic bicyclist. “In addition to my knee, my self-esteem, confidence and quality of life are a thousand percent better. Now I can’t sit still. I’m always on the move.”

To learn more about joint replacement surgery at RWJBarnabas Health, visit [www.rwjbh.org/ortho](http://www.rwjbh.org/ortho).



# MANAGING AN EATING DISORDER

**A WOMAN LEARNS BEHAVIORAL SKILLS TO IMPROVE HER HEALTH AT A SPECIALIZED INPATIENT PROGRAM.**

From the time she was 11, Kristen Vogt struggled with different eating disorders brought on by a history of childhood trauma—behavioral health difficulties that led to frequent swings in her weight. “I spent most of my life going from tiny to not-so-tiny,” says Kristen, a therapist at a rehabilitation facility for people with mental illness in Allentown, Pennsylvania. “It was a constant up and down.”

When her weight rose sharply three years ago, Kristen was referred for gastric bypass surgery, concerned but not fully realizing how her history of eating disorders could complicate her outcome. The procedure shrinks the size of the stomach, requiring people to eat very small quantities after surgery.

“It was very triggering,” Kristen says. “Anorexia—which I struggled with early in my life—came roaring back. I got so unhealthy.”

For the first time, Kristen needed to be hospitalized for disordered eating. Other hospitalizations followed in what became a pattern. She would get stabilized and be discharged, and then return to unhealthy eating behaviors.

But then Kristen learned about the Eating



MATTHEW JOHNSON, DO



Care that Kristen Vogt received at the Eating Disorders Program at Robert Wood Johnson University Hospital Somerset addressed past trauma and taught her skills that have helped her live a healthier life.

Disorders Program at Robert Wood Johnson University Hospital Somerset, a nationally recognized inpatient unit and one of only two such programs in New Jersey. The program also offers partial hospitalization and outpatient programs for eating disorders as well as support groups to help patients throughout every stage of their recovery. The program is part of RWJBarnabas Health's Behavioral Health Services together with Rutgers Health University

Behavioral Health Care.

The Somerset unit sounded promising, despite being more than an hour's drive away. Kristen reached out to learn more and eventually sought treatment.

Medical and behavioral health care she received during winter 2024 finally put her on a path to healing. “I’ve been out of hospitals ever since,” Kristen says. “That really says something.”

## A DIFFICULT CHALLENGE

Eating disorders can be difficult to treat for numerous reasons, according to Matthew Johnson, DO, the program's medical director and attending psychiatrist. "Eating disorder behaviors are often intertwined with trauma experiences, which, among other reasons, make it difficult to stop those behaviors," he says.

Bombardment by messages about appearance can make difficulties worse. "Pop culture images that saturate social media, films and advertisements—which reinforce the idea that you have to look a certain way—are inescapable," Dr. Johnson says.

Striving to meet unrealistic or distorted standards can drive some people toward behaviors such as unhealthy eating patterns, excessive exercise or the use of laxatives or stimulants in hopes of changing appearance. Such disordered behaviors can jeopardize health, sometimes to a life-threatening extent.

Kristen has struggled at various times with anorexia, which is associated with dangerous weight loss; binge eating disorder; and atypical anorexia, or extreme food restriction in people who are above their ideal weight. "You can starve at any weight," Dr. Johnson says. "It's a matter of not having the food or nutrients you need to sustain life."

Patients' complex needs require a multidisciplinary approach. "As a team, the program's doctors, nurses, therapists and dietitians work to address the barriers to improving patients' health through medical management, dietary support and both individual and group therapy—including music therapy," Dr. Johnson says.

"The therapy I got from my individual therapist was absolutely amazing," says Kristen. "I was able to work through traumas I had not touched to that extent. I did a lot of work in a small amount of time."

## SKILLS THAT STICK

A key aspect of the program is teaching patients to manage behaviors by developing inner resources they can use on an ongoing basis.



The Eating Disorders Program—one of only two inpatient eating disorder units in the state—was recently renovated to incorporate design elements that better complement the program's treatments.

"We learned skills," Kristen says. "They taught us how to cope." Depending on their needs, patients at the Eating Disorders Program may also receive occupational and physical therapy.

All patients meet with dietitians to address nutritional needs and develop meal plans. "We were able to come up with a couple of weeks' worth of meal plans with foods that I like and am willing to eat," says Kristen. "That was very helpful. Now I meal-prep every Sunday, and I make enough for both lunches and dinners."

Patients also benefit from various healing techniques in addition to music therapy, including art therapy and creative activities.

"The program treats patients ages 14 and older, with adults and adolescents in separate areas, as the experiences and needs of a teenager are typically different than those of adult patients," says Dr. Johnson. The program and staff have recently treated some senior patients in their 60s and 70s as well.

The 20-bed unit was recently renovated

to better complement treatment provided by the program. Features include lighting that shifts to mimic natural daylight changes, acoustic buffering to reduce noise, soft pastel colors to lend a relaxing atmosphere and nature-based artwork to help induce calm.

"I've worked in a number of inpatient settings, and this is by far the nicest environment that I've experienced," says Dr. Johnson.

More important are outcomes he's observed. "It's hard to explain the feeling you get when you see someone significantly improve, knowing that you and other members of the team had something to do with it," Dr. Johnson says. "When things start to click and patients get their lives back, it's exciting and rewarding."

"I still have to remind myself every day that I'm going to be OK," Kristen says. "That's going to be an ongoing process. But the Eating Disorders Program gave me tools that I didn't have before to be able to live my life and trust that I'll continue to be healthy."

For more information about the Eating Disorders Program at Robert Wood Johnson University Hospital Somerset, visit [www.rwjbh.org/eatingdisorders](http://www.rwjbh.org/eatingdisorders).



# FEWER POUNDS, BETTER HEALTH

## WHY EXCESS WEIGHT HARMS YOUR BODY—AND HOW YOU CAN REDUCE YOUR RISKS

**Y**our weight affects almost every aspect of your health, says internist Kun Pan, MD, a member of RWJBarnabas Health Medical Group. That's why he's laser focused on doing his part to reverse the obesity crisis in America.

"I remember reviewing obesity rates when I was in medical school," Dr. Pan says. "The trends since then have kept going up, and it's not getting much better, even though unhealthy weight has been a public health problem for 30 or 40 years."

Recent data from the Centers for Disease Control and Prevention puts the prevalence of obesity among U.S. adults at about 40 percent. Rates can be even higher among people seeking medical care.

"I'd estimate that anywhere between 50 and 75 percent of adults who see me are either struggling with their weight or dealing with health issues because of their weight," Dr. Pan says.

The good news: Managing weight is highly feasible despite difficulties, and



KUN PAN, MD

more tools exist to achieve better health than ever before. "Once people understand what weight represents, how it affects their health and why they gain weight, they can

take steps to lose pounds and prevent many long-term health conditions," Dr. Pan says.

### HEAVY IMPACT

Excess body fat causes the body's cells to develop tolerance to insulin, a hormone that helps cells use energy-supplying glucose from food. When this condition—called insulin resistance—occurs, glucose remains in the bloodstream, which can trigger diabetes and a host of other harmful conditions.

"Insulin resistance can cause fluctuations in your sex hormones and other chemicals, leading to problems including infertility, polycystic ovarian syndrome [PCOS] and increased risks for cancer," Dr. Pan says. "High blood sugar can also damage blood vessels, causing plaque to form in your arteries and increasing your risk of a heart attack."

Obesity is linked to other serious heart and lung conditions as well. "When you carry a lot of weight, it puts added pressure on your heart and lungs, leaving you more vulnerable to sleep apnea, pulmonary hypertension and circulatory problems," Dr. Pan says.

What's more, extra pounds increase wear and tear on weight-bearing joints, often creating chronic knee and back pain.

Most people know that weight loss will bring health benefits, but many struggle to lighten the scale. A combination of diet and exercise yields the best results. Yet some people rely on

working off weight at the gym without first making meaningful changes to their food intake.

"Both diet and exercise are important, but I find that people have the most success with weight loss when they focus 80 percent on food intake and 20 percent on exercise," Dr. Pan says.

### SCALING BACK WEIGHT

When recommending dietary changes, Dr. Pan places more emphasis on managing the types of macronutrients (carbohydrates, fats and proteins) in the diet than on merely reducing calories. "Each type of macronutrient triggers a hormonal response," Dr. Pan says. "The macronutrient that spikes blood sugar and insulin the most is carbohydrates."

To achieve a healthy lifestyle that can cause meaningful improvements in weight and health, Dr. Pan offers these recommendations:

- **Curb your carb intake.** Limit or avoid both obvious carbohydrates (such as white bread, pastas and rice) and less-obvious carbs (such as multigrain bread, whole-grain rice, oatmeal and quinoa).
- **Seek out green, leafy vegetables.** These include foods such as romaine lettuce, spinach and broccoli. Favor such foods over starchier items such as potatoes, beans, corn, yucca, lentils and yams.
- **Select the right meats.** Avoid barbecued or marinated meats—many contain added sugar.
- **Avoid grazing all day.** "Every time you



eat, your blood sugar and insulin go up, so it's wise to give your body a rest between meals," Dr. Pan says.

- **Consider skipping breakfast.** "In countries like Italy, adults generally don't eat breakfast, and they tend to be healthier," Dr. Pan says.

- **Watch what you drink.** Stick with water or plain coffee or tea. Skip sweeteners, sodas and juices, and make your own smoothies from fruits and vegetables.

- **Exercise for the right reasons.** With a healthy diet as your foundation, engage in at least moderate amounts of exercise. Physical activity doesn't just help your body use nutrients in healthier ways,

Dr. Pan says: "One of the true benefits of exercise is in how it improves your mental health."

- **Engage a primary care provider.** Seeing a doctor who takes a broad view of your overall health sets you up for long-term weight-loss success by helping you stay accountable, motivating you to lose weight and making sure your weight-loss practices are the healthiest possible.

"I strive to help my patients lose weight naturally," Dr. Pan says. "But if


it's hard for them to do so, medications called GLP-1 receptor agonists are a second option and are effective in reducing appetite."

A primary care provider can also help you know whether weight loss surgery might be right for you.

Dr. Pan's most important advice: "See a provider who will teach you how to lose weight," he says. "You'll walk away with tools you can use to stay healthy throughout your life."

To learn more about primary care or to make an appointment, visit [www.rwjbh.org/medgroupprimarycare](http://www.rwjbh.org/medgroupprimarycare).





Groundbreaking Alzheimer's disease care and research led by William Hu, MD, PhD, FAAN, is helping patients throughout the region diagnose and manage early-stage forms of dementia.

# A FIRST: SLOWING ALZHEIMER'S DISEASE

HOW A NEW MEDICATION IS CHANGING TREATMENT AND HIGHLIGHTING EXPERT REGIONAL CARE

Alzheimer's disease continues to affect millions of lives, but recent advances in research and treatment are offering new hope for patients and their families.

A promising new drug approved by the U.S. Food and Drug Administration in 2023 is now available at Robert Wood Johnson University Hospital (RWJUH) in New Brunswick. Called Leqembi (lecanemab), it offers significant potential to slow progression of the disease. RWJUH is among the first in the region to offer Leqembi, which is available to patients diagnosed with mild cognitive impairment or mild dementia confirmed to be caused by

Alzheimer's disease, throughout the RWJBarnabas Health (RWJBH) system and beyond.

The new drug represents a crucial step forward in understanding and managing Alzheimer's disease. It also highlights the importance of ongoing research and innovation in neurology, including at RWJUH, a neuroscience Center of Excellence.

## EASING PROGRESSION

Leqembi is a monoclonal antibody that removes plaques from the brain that are thought to be a major contributor to Alzheimer's. The drug is given twice monthly by intravenous infusion at the

outpatient clinic in New Brunswick. It doesn't cure Alzheimer's (no cure is known), but slowing the disease can improve quality of life for patients and their loved ones.

"There have been many generations of drugs that could remove plaque but didn't result in improvement in symptoms over time," says William Hu, MD, PhD, FAAN, Associate Professor, Chief of Cognitive Neurology and Medical Director, Alzheimer's Disease Clinic, Rutgers Robert Wood Johnson Medical School (RWJMS) and RWJUH; Director of the Center for Healthy Aging Research at the Rutgers Institute for Health, Health Care Policy and

## LEADERS IN ALZHEIMER'S RESEARCH AND CARE

Neurologists throughout RWJBarnabas Health (RWJBH) and outside providers statewide are referring patients to Robert Wood Johnson University Hospital (RWJUH) for groundbreaking treatment such as the medication Leqembi. Such referrals reflect how the Cognitive Neurology and Alzheimer's Disease Clinic led by William Hu, MD, PhD, FAAN, is recognized for both Alzheimer's treatment and research. The program's accomplishments include:

- Collaboration among providers such as cognitive neurologists, neuropsychologists, geriatricians, nurse practitioners and genetic counselors to combine deep understanding of brain diseases, diverse assessments of brain function and broad expertise in overall health and care of older adults
- Leadership in using minimally invasive spinal fluid tests to provide early, accurate confirmation of changes related to Alzheimer's disease and other forms of dementia
- Significant research, including studies funded by the National Institutes of Health (NIH) exploring mechanisms of Alzheimer's disease such as inflammation and social determinants of health
- Investment in multicultural brain health, including clinical and research programs for Chinese and South Asian older adults—recognized by an NIH designation of RWJUH as the nation's only Resource Center for Alzheimer's and Dementia Research in Asian and Pacific Americans
- Pioneering research leading to the identification of:
  - A protective profile of inflammatory proteins in very mild Alzheimer's disease that can be used in future prognostic tests
  - Molecular profiles distinguishing between Alzheimer's and long COVID-19
  - Novel tests in Chinese people to detect early cognitive decline
  - A new way to identify dementia in older South Asians
  - Other tools used to personalize evaluation and treatment of memory disorders

## WHAT IS ALZHEIMER'S DISEASE?

Alzheimer's disease is the most common cause of dementia—marked by a specific, combined set of brain changes and cognitive decline—and affects an estimated 7 million Americans.

Dementia is generally considered to occur when a person experiences enough cognitive decline that it affects daily functioning, according to William Hu, MD, PhD, FAAN, Associate Professor, Chief of Cognitive Neurology and Medical Director, Alzheimer's Disease Clinic, at Rutgers Robert Wood Johnson Medical School and Robert Wood Johnson University Hospital (RWJUH).

A variety of tests, including written ones, help determine if someone has dementia or a milder form of cognitive impairment. Specialized spinal fluid tests or PET (positron emission tomography) scans can confirm that cognitive impairment is caused by Alzheimer's.

Spinal fluid tests evaluate factors associated with Alzheimer's such as the presence of amyloid plaque and tau tangles (abnormal protein structures in the brain that interfere with nerve function), along with brain cell loss/shrinkage and inflammatory responses to these changes. With the advent of effective medications such as Leqembi, spinal fluid tests and PET scans are now covered by a variety of insurance plans, including those from Medicare, Medicaid and Veterans Affairs.

While Alzheimer's has no cure, multiple approaches can help manage its effects. These include lifestyle measures such as exercising, getting daytime light exposure to help keep the brain in a day/night pattern, managing stress and engaging in social/cognitive activities. Symptomatic medications can help improve day-to-day sharpness and memory but don't slow cognitive decline—as new drugs such as Leqembi can.

Aging Research; and a member of RWJBarnabas Health Medical Group.

The latest generation of drugs, which includes Leqembi, can not only remove plaque but also slow declines in memory or thinking by about 25 percent, says Dr. Hu, who oversees administration of Leqembi throughout the RWJBH system. "That's a fairly dramatic change," he notes, "especially if you start early."

The drug's impact is seen in patients about one to two years after treatment is started.

### EFFECTS ON LIFE

Many of Dr. Hu's Alzheimer's patients want to know how they can maintain their quality of life after diagnosis—especially how they can remain in their homes as long as possible. Drugs like Leqembi, Dr. Hu says, "can really flatten the change over time. Instead of having five or six points of change over two years, you may only have three or four

points of change."

That can make a meaningful difference in people's lives. "If you can delay the conversion from the very earliest stages to the next stages by five years, you essentially reduce the number of people with dementia [at a given time] by half," Dr. Hu says. "It's truly extending the quality of life for a longer period of time."

Leqembi's most common side effects include headache, infusion-related reactions and imaging abnormalities known to occur with antibodies that target the Alzheimer's-related protein amyloid. These side effects can be managed by the expert team at the clinic.

To learn more, call the Alzheimer's Disease Clinic at Rutgers RWJMS and RWJUH at 732.235.7733. Patients and caregivers can also schedule an appointment and begin the process of determining whether a patient qualifies to receive the therapy.

To learn more about Alzheimer's disease care at RWJBarnabas Health, visit [www.rwjbh.org/alz](http://www.rwjbh.org/alz).





▲ **Rocco Gallagher** (in chair) is honored as an RWJBH Amazing Save by the Jersey Shore Blue Claws in a VIP experience with family and friends. Rocco receives full-time care at Children's Specialized Hospital Long-Term Care in Toms River.

# CREATING GREAT EXPERIENCES

COMMUNITY PARTNERS TEAM UP TO CONNECT WITH  
RWJBARNABAS HEALTH PATIENTS AND FAMILIES.

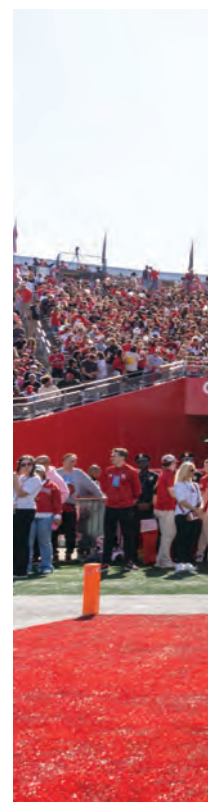
▼ **Trinity Davis** donated 10 copies of her book "Trinity and Sockland" for other patients at the Children's Heart Center at Children's Hospital of New Jersey (CHoNJ) at Newark Beth Israel Medical Center (NBI), where she has undergone two open heart surgeries. In 2024, she was part of NBI's Black Owned Business Fair.



A t RWJBarnabas Health (RWJBH), caring for patients doesn't begin and end with a visit to a doctor or hospital. A systemwide commitment to building and sustaining a healthier New Jersey also means working alongside community partners to connect with patients and uplift spirits—often in fun ways.

For example, RWJBH collaborates on a variety of programs that work with local professional- and college-level sports teams to offer patients and system colleagues great experiences participating in events, being publicly recognized or meeting star athletes in special moments like these.

◀ **Jason Admetre** enjoys an encounter with the mascot of the New Jersey Devils through the Rock Star community outreach program, a collaboration of the Devils and RWJBH. Jason has had two heart surgeries at the Children's Heart Center at CHoNJ to repair a heart condition he's had since birth.



► **Dmitri Ferrolho** (right) enjoys a meet-and-greet through the Rock Star program. Dmitri has defied odds through treatments for conditions including spina bifida at The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital in New Brunswick and at PSE&G Children's Specialized Hospital.



◄ **Pietro Gomes** meets the mascot of the Seton Hall Pirates at one of the university's games. Pietro loves sports and is being treated for a rare blood disorder at the Valerie Fund Children's Center for Cancer and Blood Disorders at CHONJ.

▼ **Timothy Phillips** (third from left) is knighted as the RWJBarnabas Health Shining Knight of the Game. He underwent chemotherapy for leukemia at Rutgers Cancer Institute—the state's only NCI-designated Comprehensive Cancer Center—together with RWJBH, and is now back in school.



▲ **Justin Corino** (second from right) and his family join a New Jersey Devils player (right) as part of the Rock Star program. Justin has been a champion throughout his treatment for leukemia at the Valerie Fund Children's Center for Cancer and Blood Disorders at CHONJ.

To learn more about RWJBarnabas Health programs and services, visit [www.rwjbh.org](http://www.rwjbh.org).

# EMERGENCY MEASURES

**HOSPITALS HAVE TAKEN METRIC-DRIVEN STEPS TO MAKE ED CARE FASTER, SAFER AND BETTER.**

Christopher Freer, DO, knows the impression that many people have of hospital emergency departments (EDs). “They’re notoriously overcrowded with long waits, and the expectation is that you’ll come in and it will be a mess,” he says.



CHRISTOPHER FREER, DO

As Senior Vice President, Emergency and Hospitalist Medicine at RWJBarnabas Health (RWJBH), Dr. Freer also understands that this expectation

can sometimes come uncomfortably close to reality. That’s why RWJBH has rethought, reorganized and reinvigorated ED care systemwide.

The initiative has resulted in dramatic improvements. Now some patients are commenting on how efficient and effective emergency care has become. “When that happens, you know you’re doing something right,” Dr. Freer says. “What we’ve done is take concepts that should be simple and kept them simple.”

Yet making a complex process simple takes thought, planning, teamwork, coordination and communication. That’s evident at an ED such as the

one at Cooperman Barnabas Medical Center (CBMC), one of the health system’s largest. “There might be 70 people coordinating care with patients, with each patient having a different complaint,” Dr. Freer says.

“It requires an interdisciplinary process that involves many colleagues, all of whom need to buy in,” says Jennifer O’Neill, DNP, APN, NEA-BC, Chief Operating Officer at CBMC.

Strategies to raise the standard of ED care that began being implemented at CBMC in 2022 have since spread to all 12 hospitals in the RWJBH system. “We’re not done,” Dr. Freer says, “but it’s working.”



## PATIENT-FIRST PRIORITIES

At the core of the initiative is the concept of putting patients first. In a busy setting with a lot of steps happening all at once (including arrival, intake, triage, exam, testing, diagnosis, admission and transport), it's tempting to organize processes in ways that prioritize staff needs. For example, patients might start by providing detailed registration information.

Dr. Freer knows what that can look like. "A line forms for registration," he says. "Then there's a line for the triage nurse. Everything flows into the waiting room. You can

see the bottlenecks."

Chokepoints factor into a key metric that's used as a national benchmark of ED performance. It's called LWOBS—left without being seen. "That means you walk in, go through lines, there's no bed available, so you sit, time goes by—and you decide you don't want to wait, so you leave," Dr. Freer says.

To members of RWJBH emergency teams, that's unacceptable. "If a patient leaves without being seen, we've failed the communities we serve," Dr. Freer says. "Our updated process changes the order of things."

The transformation begins the moment a patient walks through ED doors. "We have an experienced nurse stationed near the front door who says, 'Good evening, what brings you here today?'" Dr. Freer says. "Minimal information is taken at that moment—for example, your name—but you're in the system, you're given a wristband and care can begin immediately. We get patients to a room where they see a doctor, nurse, physician assistant or nurse practitioner."

Triage to determine care priorities and any necessary testing comes next. "While you're waiting for lab or scan results, that's when registration team members come back around to complete your information," Dr. Freer says.

Another key concept is what's known as pull to full, meaning patients are pulled into rooms as quickly as possible until beds are full. If beds aren't available, patients can go to a telehealth portal where a provider sees them remotely and starts care by, for example, ordering tests.

Overall, emergency care accelerates. Patients are discharged or admitted to the hospital, and ED beds open again so more patients can receive services.

## MARKS OF IMPROVEMENT

The new process leverages information in the Epic electronic medical records system—now implemented throughout RWJBH—to optimize patient flow. That's

especially important for the 15 to 20 percent of ED patients who are admitted to the hospital and sent to inpatient beds.

In a process called e-handoff that's coordinated by a crucial hospital logistics team, the system automatically generates electronic notifications when ED providers request an inpatient admission. Notifications tell inpatient providers that a patient is coming, alert ED providers when a bed is available and guide patient transport from emergency to inpatient care. "This all needs to happen expeditiously and safely," Dr. Freer says. "It's a critical piece of the patient journey through the hospital."

Metrics such as LWOBS and the time it takes to move patients to inpatient beds are carefully tracked and communicated to providers across all disciplines and departments. "An email goes out every day," Dr. Freer says. "Every hospital knows whether or not goals or targets are met."

Results have been impressive. "Our LWOBS percentages are significantly below national averages, and some of our hospitals are close to zero," Dr. Freer says. "ED patients move to inpatient beds in 30 to 40 minutes, which is much faster than in the past."

A more efficient ED reflects a more efficient hospital overall, says Dr. Freer, who credits O'Neill with supporting improvements through her teams. "We couldn't do this without all the inpatient pieces working for our patients," he says. "It's a true team effort."

The improvements have changed attitudes toward EDs. "Our patient experience scores are as high as they've ever been pretty uniformly across all our sites," Dr. Freer says. This triggers an additional, significant benefit. "When all this works and patients are happier, staff morale goes way up," he says. "Our staff retention rates are higher than they've been in years."

The combination of efficient care, better quality and the best patient experience is readily summed up, Dr. Freer says: "It's a triple win."

To learn more about emergency medicine at RWJBarnabas Health, visit [www.rwjbh.org](http://www.rwjbh.org). If you are having an emergency, immediately call 911.



**Wherever your child's life takes you, we're there.**  
**With NJ's highest ranked pediatric orthopedics and urology programs.**



We are nationally ranked in pediatric orthopedics at The Bristol-Myers Squibb Children's Hospital at Robert Wood Johnson University Hospital and in pediatric urology at The Bristol-Myers Squibb Children's Hospital, Children's Hospital of New Jersey at Newark Beth Israel Medical Center, Cooperman Barnabas Medical Center, and Unterberg Children's Hospital at Monmouth Medical Center. And we're also New Jersey's largest provider of children's healthcare.

From primary care to specialized treatments and therapies and in partnership with Rutgers Health, our Children's Health network provides outstanding care, advanced research and teaching from renowned physicians and clinicians, with an emphasis on the social determinants of health that help to improve the health and well-being of every child in every community. Learn more at [rwjbh.org/ChildrensHealth](https://rwjbh.org/ChildrensHealth)