

Discover HEALTH

WEST CHESTER CAMPUS

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Emergency Medicine Physician Natalie Kreitzer, MD, urges motorcyclists to always wear a helmet to protect against concussions and brain injuries.

UHealth

A concussion is a traumatic brain injury that alters the way your brain functions. Concussions are typically caused by a blow to the head or violent shaking. Effects are usually temporary but can include headaches and problems with concentration, memory, balance and coordination.



Emergency Medicine Physician Natalie Kreitzer, MD, uses an observation protocol to carefully assess patients for concussion or mild traumatic brain injury.

The Repercussions of Concussion

Natalie Kreitzer, MD, a UC Health emergency medicine physician at West Chester Hospital, has seen it all.

Dr. Kreitzer's specialty is neuro-critical care and she serves as an assistant professor of medicine for University of Cincinnati College of Medicine. Her work involves the intensive care management of patients with life-threatening neurological and neurosurgical illnesses. This can include everything from the treatment of strokes and inner-cranial bleeding to identifying the subtle signs of a concussion.

"With brain injuries, it's important to address problems as soon as possible," says Dr. Kreitzer. "We have to make assessments very quickly and very accurately."

It's a vast and sometimes confusing spectrum of possibilities. Doctors ask dozens of questions in order to pinpoint the problem. Is there bleeding inside of the brain? If Dr. Kreitzer or her colleagues suspect this, they call for an immediate CT scan. Other questions include: Has the patient lost consciousness? Is the person taking blood thinners? Have there been headaches or vomiting? Is the patient experiencing confusion or extreme drowsiness? Was there a head injury or did the condition arise unexpectedly?

"Sometimes, it's tough to know if a patient has a concussion," says Dr. Kreitzer. "Unless we know that a very specific trauma occurred, for example, a blow to the head, symptoms vary from person to person."

Interestingly, she states that information from primary care physicians (PCPs) can be especially helpful in diagnosing non-traumatic situations. PCPs know the histories of their patients' health, often providing care to a person or family for decades.

"Again, we must remember that one size does not fit all when it comes to head injuries," Dr. Kreitzer says. "That's what makes this field of medicine so interesting. Certain parts of your brain can sustain more bleeding than others. Age matters, too. By the time you're 70, the brain has shrunk slightly,

therefore you can tolerate more bleeding than someone in their early 20s."

Despite all of the concussions and head injuries she has seen, she is still shocked by one aspect. "When I see people who are riding a motorcycle without a helmet, I literally become sick to my stomach," she says. "That's not an exaggeration – I really do. I've taken care of too many people in the Neuro ICU who had survivable injuries, except for the fact that they were not wearing helmets."

"Unfortunately, no treatment exists that can cure a concussion. We can manage the resulting symptoms, such as swelling, that often occurs. Largely, it's about time. Responding in a timely manner and resting after the injury are the two most important components of treatment."

UC Study Uses Peripheral Vision Training to Prevent Concussions

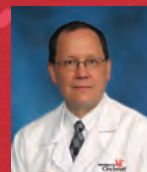
A University of Cincinnati study recently published in the medical journal, *Optometry & Visual Performance*, has shown that training athletes to better use their peripheral vision can help reduce the frequency of concussions in contact sports, including football. Joseph Clark, PhD, a professor in the Department of Neurology and Rehabilitation Medicine at UC College of Medicine, and a certified athletic trainer in the Orthopaedics and Sports Medicine Department, was the study's corresponding author.

According to Dr. Clark, little to no emphasis has been placed on prevention strategies or training programs to reduce the risk of traumatic brain injury during sports like football. "Improved helmet design and concussion mitigation strategies have been ineffective," he says.

During the study, numerous vision training methods were incorporated into preseason practice of the UC football team, including an eye-hand coordination device that tests and improves visual motor skills by using small buttons mounted on a board that light up randomly. Players had to locate the light and strike it with their hand as quickly as possible.

Also utilized during the study was a tachistoscope, a device that displays an image for a specific amount of time in order to increase visual recognition speed. The drills were incorporated into the team's regular weight and conditioning training with the players performing circuits of exercises. The complexity and demands of the training were increased to continually challenge the athletes.

"We believe that this intensive vision training broadens the athlete's field of awareness, or functional peripheral vision," says Dr. Clark. With this information, they can react faster to their changing environment and avoid injury-causing collisions."

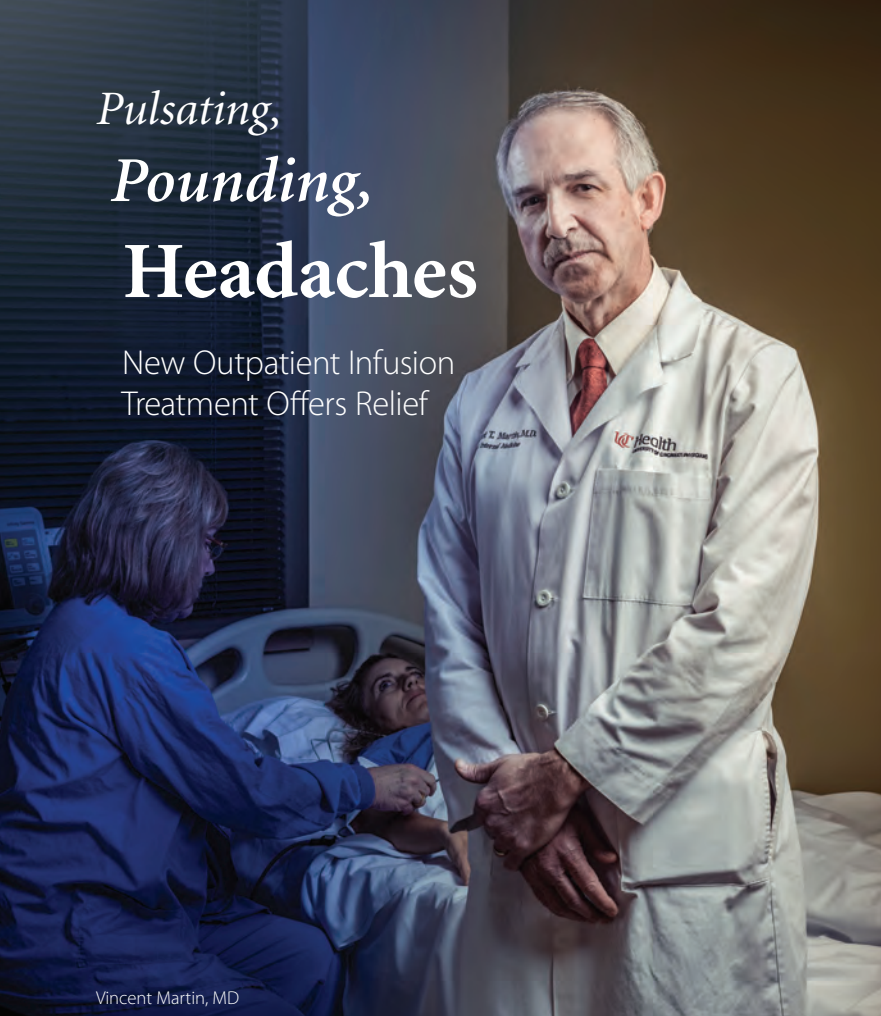


Joseph Clark, PhD

To learn more, visit healthnews.uc.edu and search "football vision training."

Pulsating, Pounding, Headaches

New Outpatient Infusion
Treatment Offers Relief



Vincent Martin, MD

Anyone suffering from disabling chronic migraines is searching for one thing: **relief**.

West Chester Hospital now offers that relief in the form of the region's only outpatient intravenous infusion center for the treatment of unrelenting headaches.

The treatment is called DHE, which is short for dihydroergotamine. "For many years, DHE has been used to halt migraine attacks in hospitalized patients. Now, we have adapted the inpatient protocol and created a state-of-the-art outpatient infusion center to treat these attacks," says Vincent Martin, MD, a UC Health headache specialist at West Chester Hospital, director of the Headache and Facial Pain Program at University of Cincinnati

Neuroscience Institute and a professor of clinical medicine in the Division of Internal Medicine for UC College of Medicine.

Two types of patients are candidates for DHE infusion treatment: individuals with chronic migraines, which means attacks occur at least 15 days per month, and individuals who struggle with rebound headaches. Rebound headaches are caused by medication overuse in which long-term use of pain relievers trigger subsequent migraine attacks.

The outpatient infusion treatment at West Chester Hospital allows patients to bypass a hospital stay and receive rapid care. "Patients arrive at 6:30 a.m., receive two injections of DHE and a few other medications, and then return home," says Dr. Martin.

If the headache persists, patients come back to receive another infusion the next morning. Treatment is available in one-, three- and five-day increments depending on the severity of the attack.

In most cases, DHE infusion effectively breaks the patient's prolonged headache cycle without the rebound triggers that are present in short-acting medications like Excedrin, Tylenol or Advil.

DHE works by binding to serotonin receptors in the brain much like other migraine medications called triptans.

Dr. Martin says the infusion acts as a sort of "reset" for the brain, allowing patients the opportunity for relief through the administration of a powerful intravenous medication (DHE), effective nausea medications and adequate hydration.

The well-tolerated therapy provides a fresh start for patients without the cost or time commitment of a hospital stay.

Dr. Martin plans to further alleviate patient suffering with the addition of other therapies available through the outpatient infusion program.

"In the future, we hope to offer a variety of options to further reduce or eliminate patients' migraines, including nutrition counseling with a dietitian, or massage or acupuncture therapy," says Dr. Martin. "Providing this treatment and other helpful resources in an outpatient setting is a huge step in providing relief to those who suffer with chronic headaches."

To receive the name of a headache specialist at West Chester Hospital, call (513) 298-DOCS (3627).

At Your Fingertips

Bedside Tablet Program Empowers and Educates Patients

What if patients could actively participate in their own care without ever leaving the hospital bed?

West Chester Hospital is one of only 20 hospitals nationwide to implement a bedside tablet program which allows patients to view information about their medical care and communicate directly with caregivers and physicians via a Samsung tablet computer.

Equipped with the My UC Health Bedside program, patients can view lab results, monitor vital signs and be proactive about their care and recovery by perusing educational materials regarding their diagnoses or surgical procedures. They also have access to entertainment and social media apps as well.

"In the course of a typical inpatient stay, a patient might encounter 70 different caregivers," says Tom Daskalakis, interim chief administrative officer at West Chester Hospital. "The tablet identifies each individual the patient meets and explains their role."

Patients can also view all medical data securely online via My UC Health upon their discharge from West Chester Hospital.



Richie Merrell, a bedside liaison, helps 72-year-old patient Mary Feltner learn about applications on the Samsung tablet.

From Cardiac Arrest to Full Recovery

Christopher Casson collapsed in the lobby of West Chester Hospital's emergency department after suffering cardiac arrest on December 19, 2015.

Moments earlier, Christopher and his wife, Millie, were grabbing a bite to eat at a nearby restaurant.

"All of a sudden I felt a big chest pain, like a deep burning that spread to my armpit and all the way down my arm until my fingers were tingling," says Christopher. He knew something was terribly wrong. "I told Millie I needed to go to the hospital."

After parking the car, Millie walked into the emergency entrance to find her husband surrounded by West Chester Hospital medical personnel and a mobile supply of emergency resuscitation medicine and equipment. "His face was completely blue, and a nurse was holding his airway open while another nurse performed CPR," says Millie, who is a registered nurse at University of Cincinnati Medical Center. Although she has witnessed similar cases, she found herself in shock at the sight of her husband in distress.

CPR and two rounds of defibrillation (controlled electric shock to allow normal heart rhythm to return) were immediately administered before Christopher was rushed to the operating room. "His right coronary artery was blocked by a blood clot and plaque, which we removed. We placed a stent in order to open up the vessel and allow blood to flow," says Mohamed Effat, MD, a UC Health cardiologist at West Chester Hospital and a professor of medicine for UC College of Medicine.

Because of the quick reaction and immediate care provided by the West Chester Hospital team, Christopher not only survived, he appears to have no long-term complications. "Had this happened outside of the hospital, he most likely would not have made it," says Dr. Effat.

Conal Roche, MD, a UC Health emergency physician at West Chester Hospital who was part of the team who administered life-saving care to Christopher, agrees. "In general,

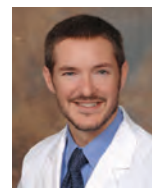
Because of the quick response and immediate care of the West Chester Hospital emergency and cardiology teams, Christopher Casson survived a serious heart attack (shown here with his wife, Millie).

survival after cardiac arrest is very low. For individuals receiving CPR, about two to 10 percent survive. For someone receiving CPR in the hospital, survival rates are closer to 20 percent."

Christopher woke up in the hospital 48 hours later without any recollection of the ordeal that he and his family had just experienced. After recovering, he is now using his experience to educate others and increase awareness of cardiac arrest.

"Everyone worked so hard to save him, we can never describe just how much we appreciate them," says Millie. A few weeks later, the couple delivered gift baskets to the caregivers who helped to save Christopher's life. Those included Dr. Effat, Dr. Roche and emergency department staff members Cyndi Elder, RN, Megan Menard, paramedic, Kayla Spillane, RN, Christine Stenson, RN and Erin Ward, RN.

"It is an incredible privilege to have assisted with Mr. Casson's care," says Dr. Roche. "It's very meaningful for the team involved, and although it's common for emergency care providers to brush off these experiences as just part of the job, they reinforce a sentiment that what we do matters."



Conal Roche, MD
Emergency Physician



Mohamed Effat, MD,
Cardiologist

To receive the name of a cardiologist at West Chester Hospital, please call (513) 298-DOCS (3627).

Is a heart attack the same as cardiac arrest?

No. The term "heart attack" is often mistakenly used to describe cardiac arrest. While a heart attack may cause cardiac arrest and sudden death, the terms don't mean the same thing. Heart attacks are caused by a blockage that stops blood flow to the heart. A heart attack (or myocardial infarction) refers to death of heart muscle tissue due to the loss of blood supply, not necessarily resulting in the death of the heart attack victim.

Cardiac arrest is caused when the heart's electrical system malfunctions. During cardiac arrest, death can result when the heart suddenly stops working properly. This may be caused by abnormal, or irregular, heart rhythms (called arrhythmias).

Groundbreaking Heart Valve Replacement Procedure Revolutionizes Cardiac Care

A new procedure is revolutionizing treatment for patients with severe aortic stenosis (narrowing of the aortic valve). The Transcatheter Aortic Valve Replacement (TAVR) Program within the UC Heart, Lung and Vascular Institute is led by Satya Shreenivas, MD, a UC Health cardiologist at West Chester Hospital and director of the UC Health Structural Heart Disease Program.



Satya Shreenivas, MD, Cardiologist

Aortic stenosis is the tightening and calcification of the aortic valve. As a result, the heart must work harder to open the valve, placing greater stress on the heart. If left untreated, aortic stenosis becomes a life-threatening condition. Treatment is required; otherwise, the two-year survival rate is estimated at less than 50 percent and a five-year survival rate is less than five percent.

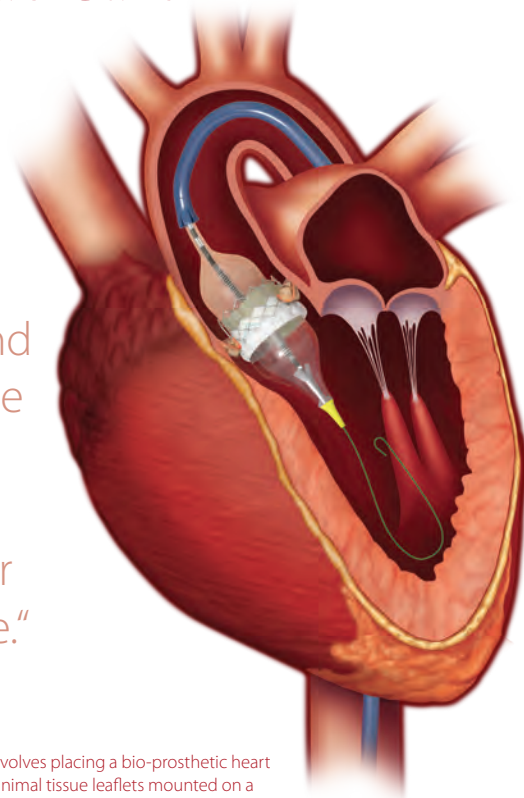
"Aortic stenosis is more prevalent as we grow older, with the incidence rising every decade of our life," says Dr. Shreenivas. "Treatment has typically involved open-heart surgery; however, most patients are too high-risk for that procedure." In fact, 33 percent of high-risk patients over 75 years of age are not candidates for open-heart surgery.

TAVR involves placing a bio-prosthetic heart valve (animal tissue leaflets mounted on a metal frame) into the patient's aortic valve by way of a catheter. The valve can be implanted three ways: through the femoral artery (transfemoral approach), through the apex of the heart (transapical approach) or through the ascending aorta (transaortic approach).

The result is an extended life for patients without having to endure drastic open-heart surgery. "Now we have a procedure that takes less than an hour in the operating room," says Dr. Shreenivas, "and patients can usually return home within 24 to 48 hours. TAVR has completely revolutionized the treatment of our patients with severe aortic stenosis."

While the TAVR procedure is currently available only for high-risk, inoperable candidates, Dr. Shreenivas indicates this will change in the future.

"Aortic stenosis is the tightening and calcification of the aortic valve. As a result, the heart must work harder to open the valve."



TAVR involves placing a bio-prosthetic heart valve (animal tissue leaflets mounted on a metal frame) into the patient's aortic valve by way of a catheter.

"There are clinical trials for moderate-risk patients, and we just started a trial for low-risk patients. We have already made amazing progress by minimizing complications, and making the device smaller. Our hope is to soon use it on healthier patients as well."

For the name of a cardiologist at West Chester Hospital, call (513) 298-DOCS (3627). To learn more about the UC Heart, Lung and Vascular Institute, visit UCHealth.com/heart.

AORTIC STENOSIS AT A GLANCE

What is Aortic Stenosis?

Aortic stenosis occurs when there is a narrowing of the heart's aortic valve opening. This narrowing does not allow normal blood flow. It is most often caused by age-related calcification, but can be caused by a birth defect, rheumatic fever or radiation therapy.

What Causes Aortic Stenosis?

In elderly patients, aortic stenosis is sometimes caused by the build-up of calcium (mineral deposits) on the aortic valve's leaflets. Over time, the leaflets become stiff, reducing their ability to fully open and close. When the leaflets don't fully open, a person's heart must work harder to push blood through the

aortic valve to the rest of the body. Eventually, the heart becomes weaker, increasing the risk of heart failure.


How is Aortic Stenosis Diagnosed?

A doctor will perform several tests to determine your diagnosis, which may include:

Auscultation – A cardiologist will use a stethoscope to listen to the sounds of your heart.

Echocardiography – This test uses ultrasound waves to obtain images of the heart chambers and valves.

Source: 2016 LifeSciences Corporation



Ashley Shaw walks her mom's dog, Coco, every day through all seasons.

reducing its size by about 80 percent. The minimally invasive, laparoscopic surgery provides powerful appetite suppression and can last for a lifetime. Unlike other gastric procedures, gastric sleeve surgery doesn't require as many vitamins, aside from the normal recommended daily multivitamin, and a balanced diet.

For patients like Ashley, gastric sleeve surgery has enabled her to enjoy a happier, healthier life.

"Initially I didn't want the surgery because I thought it would label me as a failure, that I was unable to control the choices I made with food," says Ashley. "There was a point where I was nearly 300 pounds at age 25 and I realized I needed to humble myself; that it was okay to seek help."

Although the procedure has positive outcomes, it is not a quick fix. Dr. Watkins urges patients to regard gastric sleeve surgery as one of many tools for weight loss. "These surgeries aren't automatic; they require continued focus and effort."

Typically, patients of gastric sleeve surgery lose between 60 to 70 percent of their excess weight within the first year after surgery.

"It is much more about your health choices, fitness and diet, than it is about the surgery you have," says Dr. Watkins.

More than one-third of U.S. adults are obese, according to the Centers for Disease Control and Prevention. Obesity-related conditions are the leading causes of preventable death, including certain types of cancer, stroke, type 2 diabetes and heart disease.



Brad Watkins, MD,
Bariatric Surgeon

Since her procedure, Ashley says she was shocked by the void caused by appetite suppression. "I didn't realize how much of my life was centered around food, it really was an addiction. Food was my comfort, and I discovered that I needed to find something else to fill my time."

Ashley is an avid crafter, keeping her hands busy creating, and she spends time training herself how to eat properly. She also walks her mother's dog, Coco, every day through all seasons to keep fit.

"I'm more conscious of the quality of food that I eat," she says. "The foods I choose have to be worthwhile and it's ultimately my choice—nobody is preventing me from putting a candy bar in my mouth."

With a dedicated weight loss plan, most patients are able to use the gastric sleeve surgery as the start to a long and healthy lifestyle.

"It's okay if you aren't able to lose weight on your own. People like Dr. Watkins are here to help; we are not alone in the struggle of weight loss," says Ashley. "There are many resources available to you."

A Powerful Tool for Transformative WEIGHT LOSS

Overweight since age 5, Ashley Shaw always said as a child that her preferred superpower if given the option would be invisibility. Today, the 26-year-old nurse at West Chester Hospital now embraces the experiences she once avoided.

Ashley has lost 100 pounds since her gastric sleeve surgery on December 29, 2014. "The little things make all the difference in the world: higher self-confidence, traveling without worrying about spilling into another person's seat, sitting comfortably at the theater, even crossing my arms and legs," says Ashley.

Brad Watkins, MD, a UC Health bariatric surgeon, medical director for UC Health Weight Loss Center at West Chester Hospital and professor of surgery for UC College of Medicine, says gastric sleeve surgery is an incredible option for many patients.

"The sleeve provides appetite suppression through our body's normal biology—it is not a drug, there is no band, port, tubing or foreign body involved," says Dr. Watkins. "Future risks are minimized because the procedure modifies the shape of the patient's stomach, making it much smaller."

Surgeons create a sleeve-like shape out of the patient's stomach,

"The gastric sleeve provides appetite suppression through our body's normal biology—it is not a drug, there is no band, port, tubing or foreign body involved."

— Brad Watkins, MD

To learn more about the UC Health Weight Loss Center located on the West Chester Hospital campus, visit UCHealth.com/weightloss or call (513) 939-2263.

The LINX Between a Teacher and Her Students

With constant burning in the throat and chest, frequent vomiting and meals primarily consisting of pills, GERD (gastroesophageal reflux disease) hindered every facet of Marsha McQueen's life.

An avid runner, Marsha would have to make pit stops to be sick beside the road during 5K events with her husband and two children. Simply sitting down or standing up too quickly would cause stomach acid to bubble to the surface.

One morning, Marsha was sitting propped up on her couch due to the excruciating pain of acid creeping up her esophagus, continually coughing and unable to eat. It was then that she decided she'd had enough. "I realized something had to be done because this wasn't living."

When Marsha read about the LINX Reflux Management System in *Discover Health* magazine, she knew she had found a solution.

Occasional bouts of acid reflux are common for a large population of the United States; however, patients suffering with GERD endure years of pain, a multitude of medications and the inability to be active among a litany of adverse symptoms. Over time, GERD can cause Barrett's esophagus, a condition that can lead to esophageal cancer.

The LINX device is a quarter-sized chain of magnetic beads strung together by a titanium cord. Implanted around the lower esophageal sphincter, the device allows a weak or dysfunctional valve to remain closed, preventing reflux. The force of a normal swallow causes the beads to separate and allows the valve to open, simulating a normally functioning valve.



Valerie Williams, MD,
Thoracic Surgeon

"All of my patients have reacted spectacularly and wish they had undergone the procedure sooner," says Valerie Williams, MD, a UC Health thoracic surgeon at West Chester Hospital and assistant professor of surgery for UC College of Medicine.

Marsha, who loves participating in classroom activities with her fifth-grade students in Oxford, wasn't able to fully engage with her students, but that changed with the placement of the LINX device.

"I enjoy actively teaching and the LINX device restored my ability to do so," Marsha says. "Now I'm able to stoop down next to a student during class and stand up again without upsetting my stomach. I can play outside with my students without the worry of reflux or vomiting; my breakfast no longer consists primarily of pills. I'm happier and feel better than I have in years."

Implantation of the LINX device is a minimally invasive procedure and most patients return home

the same day. Dr. Williams will never forget the conversation she had with Marsha after she had consumed her first meal about six hours after the procedure.

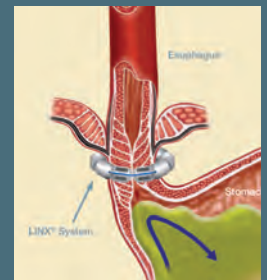
"Marsha stood up, opened her arms and asked for a hug. She said she felt so much better because she had eaten and had no reflux," says Dr. Williams. "It is incredibly rewarding to help Marsha and others with chronic GERD, and see such an impactful life change."



LINX is an alternative to the conventional more- complex invasive surgery for GERD, called Nissen fundoplication which involves the wrapping of the upper portion of the stomach (fundus) around the lower portion of the esophagus in order to re-create the lower esophageal valve and prevent stomach contents from returning into the esophagus.

The benefits of the LINX device include:

- A minimally invasive procedure without alterations to anatomy;
- The device is designed to last for a lifetime, yet can be removed if need be;
- The ability to belch and vomit is still possible and so the chance of gas and bloating symptoms is very low as compared to fundoplication;
- Recipients can still undergo an MRI, despite the magnetic device.



To receive the name of a surgeon who performs the LINX procedure, please call (513) 298-DOCS (3627).

Discover Health is a quarterly magazine published by West Chester Hospital to provide accurate and timely health information. It is offered as a health education tool featuring news and stories centered around academic-based, discovery-driven health care. It is not a substitute for consultation with a personal physician. West Chester Hospital is located at 7700 University Drive, West Chester, Ohio 45069. For information, call (513) 298-3000 or visit UCHealth.com/WestChesterHospital. If you do not wish to receive future issues of this publication, please email WCH@UCHealth.com.

2016 HEALTH EVENTS CALENDAR

West Chester Hospital is a health information resource for people in its surrounding communities. Events and activities listed are held within West Chester Hospital, 7700 University Drive, West Chester, Ohio 45069, unless otherwise noted.

FREE EDUCATIONAL SEMINARS:

Foot Health Seminars*

Wed., June 22 (7-8:30 p.m.) and
Sat., June 25 (9-10:30 a.m.)

Health Emergency Preparedness Seminars*

Wed., July 27 (7-8:30 p.m.) and
Sat., July 30 (9-10:30 a.m.)

Back Pain Seminars*

Wed., Aug. 24 (7-8:30 p.m.) and
Sat., August 27 (9-10:30 a.m.)

Brain Health & Stroke Seminars*

Wed., Sept. 21 (7-8:30 p.m.) and
Sat., Sept. 24 (9-10:30 a.m.)

Women's Health: Gynecologic & Breast Health Seminars*

Wed., Oct. 26 (7-8:30 p.m.) and
Sat., Oct. 29 (9-10:30 a.m.)

**Reserve your seat for a free community seminar by registering online at UCHealth.com/wchevents or by calling (513) 298-3000. Seminars are held in the plaza conference room located on level A of the hospital.*

FREE DIABETES PROGRAMS:

Own Your Diabetes

A team of diabetes experts provides an introductory overview of diabetes and shares information about how to manage the condition. Seminars are offered from 9 a.m. to noon on Sat., July 23, Sat., Oct. 22 and Sat., Jan. 21, 2017. To register, visit UCHealth.com/wchevents.

DIABETES SUPPORT GROUPS

Registration is not required to attend these support group meetings.

Support for Adults with Type 2 Diabetes

Group meets the first Tuesday of each month at 6:30 p.m. in the West Chester Hospital cafeteria. For information, call (513) 298-7847.

Support for Adults with Type 1 Diabetes

Group meets the last Tuesday of every month from 6 to 7 p.m. For information, call (513) 475-8657. UC Health Physicians Office Building South (Located adjacent to West Chester Hospital) Fourth Floor Conference Room – UC Health Women's Center 7675 Wellness Way, West Chester, Ohio 45069.

CHILDBIRTH EDUCATION CLASSES & TOURS

Baby Café Breastfeeding Support Class – No cost

Visit UCHealth.com/BabyCafe to learn more.

Breastfeeding Class – \$10 per couple

Baby Care Basics, Infant CPR* & Safety – \$20 per couple

** Not CPR Certification*

Prepared Childbirth Workshop – \$40 per couple

Maternity Unit Guided Tours – No Cost

Financial Planning for Your Child's Future – No Cost

Classes and tours are offered monthly. Find dates and times at UCHealth.com/WCHevents.

To register, email WCHchildbirthed@UCHealth.com.



West Chester Hospital ranks among the top 5% of hospitals in the nation for patient experience and clinical performance.



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