EXHIBIT 30

UMMS Entity	Name of Article	Published by	Date
UM BWMC	UM BWMC Will Celebrate Heart Month Throughout February	Severna Park Voice	2/10/2015
UM BWMC	What Happens When You Have a Heart Attack? Inside a Fast Ride to a Life-Saving Procedure	Capital Gazette	2/6/2015
UM BWMC	Health Talk—Here's Some Benefits of Practicing Healthy Habits	Maryland Gazette	2/4/2015
UM BWMC	Putting Our Heart into Taking Care of Yours	Severna Park Voice	1/16/2015
UM BWMC	Health Talk—The Link Between Obesity and Diabetes	Capital Gazette	11/7/2014
UM BWMC	UM BWMC Physicians Named to Baltimore Magazine's 2014 Top Docs	Baltimore Magazine	11/1/2014
UM BWMC	West County: Robots Raid the Mall During Family STEM Night	Capital Gazette	10/25/2014
UM BWMC	Cholesterol: What's Good and Bad?	Capital Gazette	9/17/2014
UM BWMC	Staying Healthy: How to Feel Young at Any Age	Capital Gazette	9/2/2014
UM BWMC	UM BWMC Opens New Farmers Market in Severn	Capital Gazette	6/3/2014
UM BWMC	Pasadena: Local Woman Named Nurse of the Year	Capital Gazette	5/23/2014
UM BWMC	Health Talk—Top 10 Reasons to Get a Good Night's Sleep	Capital Gazette	5/7/2014
UM BWMC	Kids Need Testing for High Cholesterol Too	Chesapeake Family	4/30/2014
UM BWMC	Battling an Obesity Epidemic: BWMC Programs Help Residents Lose Weight	Capital Gazette	3/10/2014
UM BWMC	Health Talk—How Exercise Benefits Your Heart	Capital Gazette	2/19/2014
UM BWMC	Pasadena Heart Attack Survivor: "Don't be stupid. Call 911"	Capital Gazette	2/7/2014
UM BWMC	Dancing—A Fun Way to Help Your Heart	Capital Gazette	2/7/2014
UM BWMC	UM BWMC To Host Ninth-Annual Heartbeat For Health On Feb. 15	Severna Park Voice	2/6/2014
UM BWMC	Health Talk—Know the Signs of Vascular Disease	Capital Gazette	2/5/2014
UM BWMC	Health Talk—Healthy and Easy Resolutions for the New Year	Capital Gazette	1/15/2014
UM BWMC	Health Talk—Ways to Avoid Holiday Weight Gain	Capital Gazette	11/20/2013
UM BWMC	Health Talk—The Facts About Lung Cancer	Capital Gazette	11/6/2013
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UM BWMC	Health Talk—Ladies: Learn, Lower and Listen	Capital Gazette	2/20/2013
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UM BWMC	Health Talk—Your Most Important New Year's Resolution	Capital Gazette	1/16/2013
UM BWMC	Cardiovascular Update: More Tailored Treatments	Maryland Physician Magazine	1/3/2013
UMMC	Lower stress to protect your health, expert says	The Baltimore Sun	12/3/2014
UMSOM	UM Ventures' First Equity Investment Could Change Open Heart Surgery	Technical.ly Baltimore	11/21/2014
UMSOM	Skin Cells Can Be Engineered into Pulmonary Valves for Pediatric Patients	Newswise: The Society of Thoracic Surgeons	8/27/2014
UMSOM	In Single Gene, A Path to Fight Heart Attacks	New York Times	6/18/2014
UMSOM	Safety of Computed Tomography in Patients With Cardiac Rhythm Management Devices	Journal of the American College of Cardiology	5/6/2014
UMMC/UMSOM	Teen Gymnast Competing Again After Heart Surgery	Cecil Daily	4/16/2014
UMMC	Surgeon Brings Less-Invasive Technique to Implanting Heart Pump to UM	The Baltimore Sun	2/21/2014
UMMC/UMSOM	Heart Pump with Behind-the-Ear Power Connector	Science Daily; Tech Briefs	8/7/2013
UMMC	Death of One Teen Brings New Life to Classmate	WJZ	7/12/2013

SEVERNA PARK VOICE
SERVING OUR COMMUNITY SINCE 1981

UM BWMC Will Celebrate Heart Month Throughout February

Provided | February 10, 2015

University of Maryland Baltimore Washington Medical Center (UM BWMC) will feature several events in February as part of American Heart Month. Heart disease, the number-one killer of both men and women in the United States, kills more than 600,000 people annually, according to the Centers for Disease Control and Prevention (CDC). The Anne Arundel County Department of Health also reports heart disease as the second leading cause of death for county residents.

"Many of our community members either suffer from or know of someone who has heart disease, and we want to make sure we are providing them the resources they need to help them live a healthy lifestyle," said UM BWMC President and CEO Karen Olscamp. "And since February is American Heart Month, we have created a series of activities during the month to help better educate our community members about heart disease."

The following programs and activities will be held throughout February:

American Red Cross Blood Drive, Friday, February 13

UM BWMC will hold an American Red Cross Blood Drive from 9:00am to 2:30pm in the hospital's Dr. Constantine Paduss Conference Center (third floor main hospital). To give blood, donors must be healthy, at least 17 years old, weigh at least 110 pounds and not have donated blood in the last 56 days or donated double red cells in the last 112 days. Donors can schedule an appointment by calling 1-800- RED CROSS or 410-787-4367.

Heartbeat for Health, Saturday, February 21

Held at the Severna Park Community Center (623 Baltimore-Annapolis Boulevard, Severna Park) from 10:00am to 2:00pm, this annual event attracts hundreds of residents who want to learn more about heart health and have fun at the same time. Heart health activities, education, music, health screenings, refreshments and giveaways are available for the entire family. Learn about the benefits of dance and exercise in the prevention of heart disease. Presentations and demonstrations will be offered by local dance studios. Free health screenings including cholesterol, bone density, body mass index (BMI), blood pressure and educational displays for cancer and heart health will be offered. Registration is not required.

Free Blood Pressure Screenings, Wednesday, February 25

UM BWMC will hold two free blood pressure screenings at Harundale Presbyterian Church (1020 Eastway, Glen Burnie) from 8:30am to noon. The screenings are free and open to the public and no appointments are necessary. UM BWMC holds the screenings every second and fourth Wednesday of the month at the church.

For more information about any of the above events, call the hospital's marketing and communications department at 410-787-4367.

Subject

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Six Tips For Sledding Safety

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What happens when you have a heart attack? Inside a fast ride to a life-saving procedure

Officials urge calling 911 instead of driving to hospital

By Wendi Winters, wwinters@capgaznews.com

8:48 AM EST, February 6, 2015

What happens when you have a heart attack?

I decided to find out with the help of county paramedics and the staff of the University of Maryland Baltimore Washington Medical Center in Glen Burnie.

With the cooperation and coordination of the Anne Arundel County paramedics from Earleigh Heights Station 12, and the Emergency Medical and CCL at UM BWMC, I was taken through the process of a "typical" heart attack.

Anne Arundel County Fire Department Firefighter Shawn Coleman, a paramedic, noted the average time elapsing from the initial call to 911 to a physician putting the finishing touches on the insertion of a life-saving stent or balloon via a slender catheter is 90 minutes. So, I noted times as I went through the process.

"Heart attack"

Inside a building located across Hospital Road from UM BWMC's main entrance, I was seated in the office of the hospital's head of marketing and communications, Kristin Fleckenstein.

At her signal, I feigned symptoms of a heart attack: pain in my left jaw and arm, fatigue, crushing pressure like an elephant sitting on my chest, shortness of breath, sweating and clamminess. Fleckenstein pretended to call 9-1-1.

Coleman and fellow paramedic John Bennett, entered the room. In a real emergency, they'd would have gotten to my side in less than seven minutes. Accompanying them was Lt. Jason Cornell, EMS supervisor for the northern part of the county.

The two paramedics quickly set up a LifePak System, one of 22 the hospital purchased and distributed to EMT units throughout the county. The LifePak System contains a heart monitor, defibrillator and an EKG – electrocardiogram. It communicates the results to waiting hospital teams. The information is received there on LifeNet devices.

The paramedics explained, during an actual 9-1-1 call, the dispatcher would ask for an address and follow with more "yes - no" questions about the victim. Is she awake and alert? Is she breathing normally? Is she clammy or

changing color?

The dispatcher will suggest the heart attack victim chew an aspirin tablet while awaiting the ambulance's arrival.

While I remained seated in the chair, the two quietly asked questions about my symptoms, previous health issues, family history of heart disease, and medications I might be taking.

There was some paperwork.

In a real life situation, if the patient hasn't already chewed an aspirin before the paramedics' arrival, they would now give one to the patient with instructions to chew it.

Coleman explained they were preparing me for the trip to the hospital. An oxygen monitor was fastened to my right forefinger. A blood pressure cuff was attached to my right upper arm.

A blue constricting band was tied onto my left arm in preparation to take five blood samples.

My shirt was unbuttoned. Sticky pads containing electrodes were patted onto the skin of my chest, ribs and belly. Multi-colored wires were draped across my body. A portable oxygen tank was hooked up and a long clear tube was pulled over my ears and inserted into my nostrils.

Manipulating buttons and dials, the paramedics began transmitting EKG results and other data about my heart condition to technicians waiting in the Emergency Room and the CCL.

The stretcher was wheeled in.

It silently rose up more than a foot. I got onto it.

"It's battery operated now," said Coleman as the stretcher waswheeled down the hallway.

"Back strain has always been a problem with this work."

A relative or companion is able to ride along in the ambulance, in the front passenger seat. Otherwise, they are instructed to drive to the hospital carefully observing all traffic laws. They cannot speed along behind the ambulance.

On the road

The stretcher was lifted into the ambulance and locked into place.

Next to the stretcher, secured with several belts, Coleman sat in a chair that rotated. He could swivel to look at the monitor of the LifePak, locked onto a console, or turn to care for the patient on the stretcher.

He continued to send updates on my condition to the two waiting teams at UM BWMC.

Coleman set up a saline IV and prepared a needle he would have inserted into the back of my left hand in a real emergency.

The oxygen tube in my nose was hooked up to a spigot overhead in the ceiling. It leads to a larger, on-board

oxygen tank on the year-old ambulance.

With gloved hands, he gingerly handled a tiny, but powerful, nitroglycerin tablet, used to rapidly thin the blood. Depending upon the responsiveness to the drug and a patient's condition, a heart attack victim would normally receive one every three to five minutes. The drug, Coleman said, "reduces pain and dilates blood vessels to let blood flow better." The technician places it under the tongue." (Not this time, however.)

At the emergency room

Emergency Department Clinical Operations manager Kelli Kitts, RN, and Dr. Neel Vibhakar, chair of Emergency Medicine, were waiting when the ambulance pulled up at the emergency room entrance.

They motioned to the paramedics who wheeled my stretcher into a side room. I was lifted onto a bed. Railings on either side were snapped upright.

In a real situation, the ER nurses would have removed all of my clothing and tucked it safely into a bag, while simultaneously garbing me in a hospital gown.

Vibhakar, Kitts and several nurses swarmed over me, verifying all the information they'd received from the paramedics.

My EKG results flashed on the LifeNet monitor, and were printed out on the spot. Results were also being printed upstairs in the CCL, and in Barbara Hamilton's office next to the CCL. The three lines that blipped along the sheet were fairly placid looking, unlike the sharp, high spikes usually indicating a heart attack in progress.

There was another round of questions and paperwork. Vibhakar, affiliated with the hospital for 10 1/2 years, calmly explained the condition of my heart, and options available. Almost all patients opt for immediate catheterization.

After a comforting pat on the shoulder, I was wheeled down two halls to an elevator.

About 30 minutes had passed.

At UM BWMC, the average door-to-balloon time, from where the patient first arrives at the emergency department to when the first device is used to reestablish blood flow to the heart muscle is 52 minutes.

Upstairs in the cath lab

In the CCL or cath lab, I was instructed to slide over onto the examining bed. Arching above it was an X-ray camera. Radiation emanated from beneath the bed. The camera could move and rotate above my body to capture various views of my heart and arteries.

Had it been a real heart attack, nurses would be preparing me for the insertion of a catheter tube into either the left or right groin by shaving the area.

I would have been injected with a moderate "twilight" sedation to would make me sleepy, and pain-free, but aware of my surroundings and able to communicate. Lidocaine, a local anesthetic, would be injected at the site where an incision would be made to insert the catheter.

My wrists were placed into soft restraining straps. Nurses wrapped my bare legs in a warm blanket. Another covering was placed over it; my torso was used as a tabletop for the doctor's instruments. A cap was placed on my head to cover my hair.

In lieu of an actual procedure, Dr. Samuel Yoon, an interventional cardiologist, showed me a catheter and demonstrated how the long, narrow, slightly curved tube could be inserted into an artery or vein in the groin and, using the camera's monitor, guided up my torso toward the heart. Once inside the heart, Yoon would inject a dye containing iodine inside the heart's chambers and vessels.

On the digital X-ray monitor, the dye would illuminate the heart, its valves, and arteries. He could see how the organ was pumping blood and how the blood flowed through the arteries.

Using the equipment, Yoon would ascertain which of three arteries was blocked, causing the heart to lose oxygen and malfunction: the left artery, the right artery or the circumflex artery that curves around behind the left side of the heart.

To open the blocked artery, the catheter is moved to that area. A tiny balloon is threaded through the catheter on a thin guide wire. When it reaches the blocked area, the balloon is inflated, pressing the blockage against the vessel walls.

Some arteries, weakened by the blockage, need to be reinforced. A stent slid over a balloon is guided to the spot. The balloon is inflated, pushing back the walls, then deflated, leaving the stent in place.

Visualize the tube-like metal spring in a ballpoint pen. A stent, made of surgical stainless steel mesh, is vaguely similar in shape and length.

The catheter is withdrawn and the small incision is closed up.

The patient is placed back on a stretcher and wheeled into the hospital's Critical Care Unit to recover for two or three days.

Later, Yoon and his team will visit the patient to discuss what happens next.

Unlike a real heart attack patient, I got up off the table.

It had all happened in about 88 minutes.

Call 9-1-1

At the University of Maryland Baltimore Washington Medical Center (UM BWMC) in Glen Burnie, 23 percent of those arriving at the hospital in the throes of a myocardial infarction or heart attack either drove themselves there, or were transported to the emergency room in a relative's or friend's vehicle.

For Dr. Samuel Yoon, medical director of the Cardiac Catheterization Laboratory at UM BWMC, that's too high a percentage.

"Don't drive," he urges.

"Call 9-1-1."

"With heart attacks, time is muscle," Yoon says. "If the blood flow is not restored quickly, the heart starts to die. The 'door to balloon' time is critical."

A person driving in full cardiac arrest is more likely to crash the car, potentially causing injury or death to themselves and others.

The hospital's Cardiac Catheterization Laboratory (CCL) receives as many as 250 cardiac arrest patients in a year, many in the middle of the night.

A person having a heart attack who does not call 9-1-1, denies themselves the life-saving benefits of receiving expert medical aid within minutes.

The hesitation to call 9-1-1 might arise from a concern about what a ride in an ambulance to either UM BWMC or Anne Arundel Medical Center might cost.

According to Russ Davies, spokesman for the Anne Arundel County Fire Department, if a patient is a county resident, the insurance company is billed and the balance is written off. If the patient has no insurance, the entire balance is written off. "So, no out of pocket cost for any county resident," Davies said. "Out of county residents get billed for what insurance doesn't pay."

Barbara Hamilton, director of Cardiology and Cardiac Catheterization, notes the hospital and its staff are proud of their record of speedy response and care time. In 2014, they received the American Heart Association's Mission Lifeline Gold Plus Award, the only one awarded at that level in the state.

This story has been revised to clarify response times and to correct Dr. Samuel Yoon's title.

Here's some benefits of practicing healthy habits

Many of us know that healthy habits make sense, but did you ever stop to think why you should practice them?

Research shows that the impact of good health on your quality of life is far-reaching, regardless of your age, gender or physical ability. Check out these five qualities that good health promotes.

Controlling weight: Eating right and exercising regularly can help you avoid excess weight gain and maintain a healthy weight. According to the Mayo Clinic, you can obtain benefits of exercise by being active in simple ways throughout the day. For example, walk instead of driving vehicle or take the stairs instead of the elevator.

Eating a low-fat diet can also help control weight. When you start the day with a healthy breakfast, you help avoid hunger spasms that could send you running to fast food before lunch, says the American Dietetic Association.

The ADA also recommends incorporating at least five servings per day of fruits and vegetables — which are low in calories and high in nutrients — in to your diet to help with weight control.

Improving mood: Doing right by your body pays off for your mind as well. The Mayo Clinic notes that physical activity stimulates brain chemicals that often leave you feeling both happier and more relaxed.

HEALTH TALK

Debbie Lund

Eating a healthy diet as well as exercising can lead to a better physique, so you may also feel better about your appearance, which can boost your confidence and self-esteem. The American Council on Exercise reports that the short-term results of exercise include decreased stress and ability to think better.

It's not just diet and exercise that lead to improved mood. According to a study published in the *American Journal of Health Behavior*, another healthy habit that leads to better mental health is making social connections.

Whether it's volunteering, joining a club or attending a movie, communal activities help improve mood and mental functioning by keeping the mind active and serotonin levels balanced, says the American Academy of Family Physicians.

Combating disease: Healthy habits can help prevent certain health conditions — such as heart disease, stroke and high blood pressure — by boosting high-density lipoprotein, or "good," cholesterol and decreasing unhealthy triglycerides. This combination keeps your blood flowing smoothly, decreasing your risk of cardiovascular diseases.

The Mayo Clinic says regular physical activity and proper diet can help you prevent or manage a wide range of other health problems, including metabolic syndrome, diabetes, depression, certain types of cancer and arthritis.

Boosting energy: We've all experienced the energy drop that comes from eating foods high in sugar and saturated fats. When you eat a balanced diet including whole grains, lean meats, low-fat dairy products, and fruits and vegetables, your body has the fuel that it needs to manage your energy level.

Regular physical exercise also improves muscle strength and boosts endurance, giving you more energy, says the Mayo Clinic. Exercise helps deliver oxygen and nutrients to your tissues and gets your cardiovascular system working more efficiently so you have more energy to go about your daily activities.

It also helps boost energy by promoting better sleep — helping you fall asleep faster and deepening your sleep.

Improving longevity: When you practice healthy habits, you boost your chances of a longer life. The American Council on Exercise reported on an eight-year study of 13,000 people. The study showed that those who walked just 30 minutes each day significantly reduced their chances of dying prematurely, compared with those who exercised infrequently.

Looking forward to more time with loved ones is reason enough to keep walking.

Debbie Lund is an exercise physiologist at Baltimore Washington Medical Center.

Food and fitness

Debbie Lund, an exercise physiologist at Baltimore Washington Medical Center, and nutritionist and certified diabetes educator Liz Smith will host a free lecture "Food and Fitness: The Recipe for a Healthy Heart" at 6:30 p.m. Feb. 11 at the hospital in Glen Burnie. Reservations are required. Call 410-787-4367.

SEVERNA PARK VOICE
SERVING OUR COMMUNITY SINCE 1981

Putting Our Heart Into Taking Care Of Yours

Provided | January 16, 2015

When UM Baltimore Washington Medical Center (UM BWMC) opened in 1965, it provided basic heart care for the community. Now as it celebrates its 50th year, the hospital has grown to become a regional cardiac leader.

Through advanced preventive cardiac care, comprehensive cardiopulmonary rehabilitation and a cardiac catheterization lab, where more than 1,600 diagnostic tests, pacemaker and internal cardiac defibrillator insertions and lifesaving angioplasties are performed each year, the hospital works around the clock to fight heart disease.

UM BWMC is also the only hospital in Maryland to win the American Heart Association's 2014 Mission: Lifeline Gold Plus Receiving Quality Achievement Award, which recognizes accomplishments in implementing specific quality measures while treating patients suffering from severe heart attacks.

"Our cardiac team is dedicated to making a lasting, positive impact on our community's heart health," said Jorge M. Ramirez, MD, cardiologist, chair of cardiology and medical services at UM BWMC and clinical assistant professor at the University of Maryland School of Medicine.

Knowing Your Risk

Heart disease, also known as cardiovascular disease, is the number-one cause of death for both men and women in the United States.

It comes in several forms, including heart attack, stroke, heart failure, heart valve problems such as leaky or regurgitant valves, and arrhythmia, an abnormal rhythm of the heart. Heart attack and stroke are related to atherosclerosis, a condition that occurs when plaque builds up on artery walls. This condition makes it difficult for blood to flow.

The first step in avoiding any form of heart disease is knowing and reducing your risk, Ramirez explained. Common risk factors include:

- Age: Aging increases the risk of damaged arteries and a weakened heart muscle.
- Family history: Risk increases if a parent developed heart disease at an early age. That means before age 55 for an immediate male relative and before age 65 for an immediate female relative.
- Gender: Men are more at risk for heart disease, but women's risk increases after menopause.
- High blood cholesterol: High cholesterol can increase plaque formation.
- High blood pressure: This can lead to thickened arteries and narrowed blood vessels.
- Obesity.
- Physical inactivity.
- Poor diet: A diet high in fat, sugar and cholesterol raises the risk.
- Race: African-Americans, American Indians and Mexican Americans are more at risk than Caucasians.
- Smoking.
- Stress and anger: Studies show men who are quick to anger are five times more likely to have an early heart attack.

While many of these risk factors are uncontrollable, people can reduce their risk of the disease by changing their lifestyles and changing or eliminating controllable risk factors like diet and smoking, Ramirez indicated. "Reducing your risk for heart disease will not only help your heart; it will improve your overall physical and emotional well-being," he stated.

If you have any of the above risk factors, talk with your primary care physician about ways to reduce your risk and improve your health.

Getting Treatment

At UM BWMC, cardiovascular specialists provide a range of diagnostic and treatment options.

Echocardiograms, electrocardiograms (EKGs) and nuclear stress tests can identify or rule out specific heart conditions.

If additional evaluation and treatment is needed, the hospital is home to two cardiac catheterization labs. There, specialists perform the following:

- Emergency coronary angioplasty, also known as primary percutaneous coronary intervention (pPCI), and elective coronary angioplasty. During these procedures, an interventional cardiologist opens blocked arteries to restore blood flow to the heart.
- Cardioversion, a procedure using electrical shock to convert an abnormal heart rhythm back to normal.
- Permanent pacemaker insertions.
- Internal cardiac defibrillator (ICD) testing and insertions.

In the cardiac catheterization labs, UM BWMC cardiac specialists also embrace new technology and techniques. Doctors began providing radial catheterization in 2013 to patients who meet certain criteria. The radial approach, where doctors insert a catheter into the wrist's radial artery, significantly reduces the incidence of bleeding and other vascular complications. It can also lead to a shorter recovery for the patient than the femoral approach, where doctors insert a catheter through the thigh's femoral artery, explained Samuel Yoon, MD, interventional cardiologist, medical director of UM BWMC's cardiac catheterization lab and clinical assistant professor at the University of Maryland School of Medicine.

"Our experienced cardiac team provides the latest high-quality care, and the cardiac catheterization labs increase our community's access to important cardiac treatments," Yoon detailed.

The community also benefits from UM BWMC's partnership with the University of Maryland Heart Center, part of the University of Maryland Medical Center.

In addition, UM BWMC is home to a 24-bed critical care unit, where critically ill cardiac patients receive around-the-clock monitoring and specialty care.

Restoring Heart Health

Exercise is one of the best ways to restore health after heart disease, according to Claudia Cavey, RN, a cardiac therapist at UM BWMC.

UM BWMC's cardiopulmonary rehabilitation program, which celebrates its 30th year in February, provides cardiovascular conditioning after a heart attack, heart transplant or coronary bypass surgery and pulmonary rehabilitation for patients with chronic respiratory disease.

Once patients receive a doctor's referral, therapists like Cavey guide them through a series of

six exercises, including walking on a treadmill, riding a stationary bicycle and lifting light weights. Most patients participate in UM BWMC's cardiopulmonary rehabilitation program for one hour, three days a week.

"When you come to cardiopulmonary rehab, you are supervised and monitored," Cavey said. "Each person is given an individualized exercise prescription. The idea is to progress exercise in time and intensity as their pulse rate tolerates and physical condition allows."

Therapists also provide stress tests, breathing exercises and patient education on diet, weight loss and diabetes.

Insurance typically covers between 12 and 36 cardiopulmonary rehabilitation sessions.

Preventing Heart Disease

Want a healthy heart? Check out these UM BWMC programs and classes that are sure to keep your ticker strong.

Heartbeat for Health – This day, filled with music, education, heart-healthy activities like dancing and screenings, including blood pressure, cholesterol and body mass index, is all about cardiac health. It will be held on February 21 from 10:00am to 2:00pm at Severna Park Community Center, 623 Baltimore Annapolis Boulevard. Information: 410-787-4367.

Yoga and Pilates – Both yoga and Pilates classes provide improved flexibility, strength and coordination. Yoga classes are available for a range of abilities, as well as for women who are pregnant. Class dates and times vary. Preregistration is required. Classes are held at UM BW Health Services, 7556 Teague Road, Suite 440, in Hanover, or at UM BWMC, Courtney Conference Center, 301 Hospital Drive, eighth floor, in Glen Burnie. Classes cost $50 for a 10-week session. Information: 410-787-4367.

Tai Chi – Tai Chi is a physical art from China characterized by slow and soft movements. It provides stress reduction, improved balance and gentle joint manipulation. Class dates and times vary. Preregistration is required. Classes are held at UM BWMC, Courtney Conference Center, 301 Hospital Drive, eighth floor, in Glen Burnie. Enrollment costs $50 for a 10-week session. Information: 410-787-4367.

Fitness Fusion – This is a high-energy class that incorporates yoga, Pilates, boxing, dancing, weight training and meditation. Class dates and times vary. Preregistration is required. Classes are held at UM BWMC, Courtney Conference Center, 301 Hospital Drive, eighth floor, in Glen Burnie. Classes cost $50 for a 10-week session. Information: 410-787-4367.

Blood pressure screening – UM BWMC nurses check for high blood pressure, which greatly increases one's chance of heart attack or stroke. Screenings are every second and fourth Wednesday of the month from 8:30am to noon at Harundale Presbyterian Church, Eastway and Guilford Road, in Glen Burnie. Reservations are not required. Information: 410-787-4367.

CPR class – Cardiopulmonary resuscitation (CPR) is an emergency, lifesaving procedure done

when someone's breathing or heartbeat has stopped. UM BWMC hosts American Heart Association adult and infant CPR classes throughout the year. The classes will also review information on automated external defibrillators (AED) and choking relief. The adult CPR class is February 11 from 5:30pm to 6:30pm, and the infant CPR class will be held from 7:00pm to 8:00pm. Registration is required. Classes are held at UM BWMC, Dr. Constantine Padussis Conference Center, 301 Hospital Drive, third floor, Glen Burnie. Please not that this class does not provide CPR certification. Information: 410-787-4367.

For a full listing of UM BWMC's community cardiac programs, please visit www.mybwmc.org.

Subject

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More in this Section

UM BWMC Will Celebrate Heart Month Throughout February

Laser Eye Surgery: M

The link between obesity and diabetes

By KATHLEEN PENDERGAST, For the Maryland Gazette | Posted: Wednesday, November 7, 2012 6:00 am

If you have watched the evening news over the last year, undoubtedly you have seen several new stories focusing on obesity and the health issues it is causing.

Obesity rates in both children and adults are so high that it is now an epidemic and has caught the eye of health officials around the country. One disease that is on the rise due in large part to the obesity epidemic is type 2 diabetes.

Recently the Center for Disease Control released a report suggesting we are eating ourselves into a diabetes epidemic. Diabetes affected 11 million Americans in 1990. In 20 years that number has exploded and now nearly 24 million people are affected by the condition.

There are two main types of diabetes. Both types are caused by problems in how a hormone called insulin (that helps regulate blood sugar) works. Type 1 diabetes most often appears in childhood or adolescence and causes high blood sugar when your body can't make enough insulin.

Over 90 percent of all diabetes, however, is type 2 diabetes. In this type of diabetes your body makes insulin but can't use it properly. At first, your body overproduces insulin to keep blood sugar normal, but over time you lose your ability to produce enough insulin to keep blood sugar levels in the normal healthy range. The result is blood sugar rises to high levels. Over a long period of time, high blood sugar levels due to diabetes can cause heart disease, stroke, blindness, kidney failure, leg and foot amputations, and pregnancy complications. Diabetes can be a deadly disease: over 200,000 people die each year of diabetes related complications.

How does my weight relate to type 2 diabetes?

Carrying extra body weight and body fat go hand and hand with the development of type 2 diabetes. People who are overweight are at much greater risk of developing type 2 diabetes than normal weight individuals. Being overweight puts added pressure on the body's ability to properly control blood sugar using insulin and therefore makes it much more likely for you to develop diabetes. Almost 90 percent of people with type 2 diabetes are overweight. The number of diabetes cases among American adults jumped by a third during the 1990s, and more increases are expected. This rapid increase in diabetes is due to the growing prevalence of obesity in the United States population.

What can you do to prevent diabetes?

The good news is type 2 diabetes is preventable. Research studies have found that lifestyle changes and small amounts of weight loss in the range of five to ten percent can prevent or delay the

development of type 2 diabetes among high-risk adults. Lifestyle interventions including diet and moderate-intensity physical activity (such as walking for 150 minutes per week) were used in these research studies to produce small amounts of weight loss. The development of diabetes was reduced 40 to 60 percent during these studies that lasted three to six years. Preventing weight gain, increasing activity levels and working toward small amounts of weight loss if you are overweight can have a big impact on the likelihood that you will develop diabetes in the future. Managing your weight through diet and regular exercise the best thing you can do to prevent the development of diabetes.

What can you do if you already have diabetes?

You can have a positive influence on your blood sugar and your overall health by choosing foods wisely, exercising regularly, reducing your stress level and making modest lifestyle changes. Small amounts of weight loss (losing 10 pounds or more) can also have a big effect on how easily you can keep your blood sugar in the healthy range and can help prevent the complication of diabetes. Weight reduction can also decrease the amount of medication you need to keep your blood sugar in the healthy range. Overall better nutrition, physical activity, and control of blood glucose levels can delay the progression of diabetes and prevent complications.

UMMS Physicians Named Baltimore Magazine's Top Doctors

For immediate release: November 04, 2014

Congratulations to the 155 physicians practicing in the University of Maryland Medical System who have been named one of Baltimore magazine's TOP DOCS 2014!

UM Baltimore Washington Medical Center

Breast Surgery
Dr. Cynthia Drogula

Cardiology
Dr. Peter Gaskin

Colorectal Surgery
Dr. Howard Berg
Dr. Debra Vachon

General Surgery
Dr. Jonathan Calure

Gynecologic Oncology
Dr. Fouad Abbas

Interventional Radiology
Dr. Blair Andrew
Dr. Troy Brijbasi
Dr. Margaret Alma Lynch-Nyhan
Dr. Charles Yim

Maternal:Fetal Medicine
Dr. Christopher Harman

Neurosurgery
Dr. Amiel Bethel

Dr. Clifford Solomon

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Dr. Ethan Spiegler
Dr. Frederic Yeganeh

Orthopaedic Surgery
Dr. Hal Crane
Dr. Randy Davis

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Dr. Mitch Oh
Dr. William Regine

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Dr. Blair Andrew
Dr. Margaret Alma Lynch-Nyhan
Dr. Loralie Ma

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Dr. Jacques Conaway

Surgical Oncology
Dr. Cherif Boutros

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Dr. Marshall Benjamin

University of Maryland Medical Center

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Dr. Brian Browne

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Dr. Brian Berman

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Dr. Jack Gladstein
Dr. Janine Good

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Dr. Katherine Tkaczuk

Oncology: Lymphoma and Bone Marrow Transplant
Dr. Aaron Rapoport

Pulmonary
Dr. Edward James Britt

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Radiology
Dr. Jade Wong-You-Cheong

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Dr. Steven Scharf

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Dr. Andrea Bafford

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University of Maryland Medical Center Midtown Campus

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University of Maryland Rehabilitation & Orthopaedic Institute

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Cardiac Surgery: Mitral Valve/Aortic Valve/Coronary Artery Bypass
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Gynecologic Oncology
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Dr. Michael Marion

Hepatobiliary
Dr. Mark Fraiman
Dr. Steven Hanish
Dr. Richard Mackey

Hospitalist
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Dr. Mitchell Schwartz

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Dr. Charles Yim

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Neonatology
Dr. Michael Langbaum

Nephrology
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Orthopedic Surgery: Spine
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Dr. Steven Ludwig
Dr. Paul McAfee

Oncology: Breast
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Oncology: General
Dr. Richard Schraeder

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Pathology
Dr. James Eagan

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Dr. Luther (Tripp) Holton
Dr. Michele Shermak
Dr. Nassif Soueid

Plastic Surgery: Breast
Dr. Ronald Schuster
Dr. Sheri Slezak
Dr. Nassif Soueid

Plastic Surgery: Facial
Dr. Randolph Capone

Plastic Surgery: Reconstructive
Dr. Paul Ringelman
Dr. Sheri Slezak
Dr. Nassif Soueid

Pulmonary
Dr. Linda Barr
Dr. Mitchell Schwartz

Radiation Oncology
Dr. Cengiz Aygun

Radiology
Dr. Margaret Alma Lynch-Nyhan
Dr. Loralie Ma

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Dr. Ira Fine

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Dr. Brian Bohner
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Surgery for Chronic Venous Disease/Varicose veins
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West County: Robots raid the mall during family STEM night

By Atalie Day Brown, Correspondent

October 25, 2014

Robots, check. Experiments, check. Technology, check.

The Fort Meade Alliance had all the elements needed to create a fun, interactive evening for children and parents interested in the Anne Arundel County's Science, Technology, Engineering and Mathematics programs.

The alliance hosted its annual STEM Family Night at Arundel Mills Mall, 7000 Arundel Mills Blvd., Tuesday.

Interactive STEM exhibits lined the Arundel Mills food court, including remote controlled robotics, wi-fi technology, life-saving medical technologies, video games, hands-on science experiments and more.

"A vital economy starts with a good education," said **Penny Cantwell**, the alliance's Education and Workforce Development chairwoman. Cantwell and her colleagues have been expanding their educational reach within the community, while trying to expose grade-school kids and their parents to possible STEM careers.

Quite possibly the rock stars of the exhibit are not much older than the youths the alliance sought to attract: The South River High School Power Hawks Robotics Club.

Several student and faculty team members from the club volunteered their time to speak to families about their various robotics projects and the benefits of STEM. They brought three, large robots capable of completing a range of tasks, from shooting hoops to shadowing teammates through the food court. The robots were followed by a long line of kids, from toddlers on up.

"I highly recommend (STEM), it's just an amazing program," South River senior **Andrew Tickel** said. The 17-year-old from Churchton is a firm believer in STEM-related programs being taught in public schools. He joined the SeaPerch program when he was in fifth grade and has been a part of STEM ever since. "I believe STEM is important because it gets kids interested in things that will change their lives," he said.

Richard Chapman Jr. is the Power Hawks Robotics Club mentor. He started volunteering with the club 10 years ago and said he has seen many of his robotics students enter highly-esteemed colleges and universities.

His 16-year-old daughter **Katie Chapman**, is part of the club and enjoys it immensely. "I was raised by robots," she joked.

Another unique exhibit was provided by the National Electronic Museum in Linthicum. Its interactive exhibits displayed electrical theory and magnetism, using devices made by museum volunteer **Thomas Ballard**, a retired engineer. The devices were a big hit among the crowd of kids touring the tables.

"Kids like things that light up," said **Alice Donahue**, assistant director of the museum.

Other displays of interactive exhibits were organized by Anne Arundel Community College's Kids in College. **Jason Barbour**, an instructor for Kids in College and assistant professor at AACC, showed children how to perform captivating experiments that demonstrated the power of static electricity.

Baltimore Washington Medical Center displayed medical elements that treat heart attack victims. "We're showing families how technology works when someone is having a heart attack," said **Kristen Fleckenstein**, director of marketing and communications at BWMC. They also explained how first responders use science and technology to care for their ill patients.

South River seniors **Maddie Marcellino**, of Edgewater, and **Tina Depietro**, of Davidsonville, volunteered their time to instruct kids how to use a flight simulator program, complete with controls. They saw the event as an opportunity to inspire younger kids to get involved with the STEM program. "Aeronautics is really fun," says Marcellino, "if kids get to see how fun it is, they'll want to join STEM."

Meade Beautification Day

Meade High School, 1100 Clark Road, will host its fourth Meade Beautification Day from 9 a.m. to 1 p.m. Saturday.

The school will weed their gardens, plant flowers, clean up trash, mulch their gardens, paint murals, and more. The community is welcome to join while also having some fun.

There also will be games, music, face painting, free food and prize giveaways

For details, **Shira Reicher Levy**, at srlevy@AACPS.org.

Trunk 'n' Treat

Delmont United Methodist Church, 1219 Delmont Road, will hold a free Trunk 'n' Treat from 4 to 6 p.m. Saturday.

Members of the community are invited to decorate their car trunk or truck bed to provide a safe, fun environment for children to do their trick or treating. A prize will be awarded for best decorated car trunk/truck bed. Children can go in costume and enjoy the fun and games.

The church will have a pumpkin patch and each child that is ages 16 and younger can select a pumpkin from the patch and decorate it. Kids also can play a pluck-a-duck game, every child will win a prize.

Food will include hot dogs, popcorn, apples with caramel and drinks.

For details, contact the Rev. **Wendy van Vliet** at 410-707-5530, or DelmontsPastor@gmail.com.

Guest speaker

Nineteen-year-old Hurricane Katrina survivor Michael A. Welch will be singing and preaching to the congregation of Come Just As You Are Bible Fellowship Crusade Ministry, 1210 Severn Station Road, at its 10:45 a.m. Sunday service.

Welch has been preaching in the pulpit since he was just 9 years old. Welch is a member and an associate minister at Law Street Baptist Church in New Orleans and the nephew of the church's pastor, the Rev. Gertrude Stevens.

For details, call the church at 410-551-5890.

Veterans' Appreciation Day

The Retired Officers' Wives' Club will host a Veterans' Appreciation Day Luncheon Nov. 1, at Club Meade, 6600 Mapes Road, Fort George G. Meade.

Socializing will be held from 9:45 a.m. to 10:20 a.m., with the program beginning at 10:30 a.m.

The keynote speaker will be Dr. **Carolyn M. Clancy**, Interim Under-Secretary for Health for the Department of Veterans' Affairs. **Jay Thompson** will perform a patriotic musical tribute.

This event is for all ranks of military personnel, veterans, family, friends, and the civilian community.

Reservations were suggested to be completed by Friday, however, tickets still may be available.

The cost is $30. Tables seat 10 and will be assigned on a first-come, first-served basis. Guests wishing to sit together must submit payment and reservation forms in the same envelope, at the same time.

For reservations, call co-chairpersons **Lianne Roberts** at 301-464-5498, or **Genny Bellinger** at 410-674-2550.

ROWC Meeting

The Retired Officers' Wives' Club will hold its November luncheon at 11 a.m. Nov. 4 at Club Meade, 6600 Mapes Road.

Guests will enjoy a fascinating and informative presentation called "The Fall of Saigon" by **Tom Glenn**, a former National Security Agency operative who was stationed in Saigon. He will present slides and a first-hand narrative of the city's final days when North Vietnamese troops attacked the city. Autographed copies of Glenn's book will be available for purchase during this event.

Cost of the luncheon is $18. Reservations are required no later than noon Thursday. Call your area representative or Betty Wade at 410-551-7082

For membership information, call **Genny Bellinger**, president of the ROWC, at 410-674-2550 or **Jean Simmons**, membership chairwoman, at 410-721-7761.

Coach and Kors bingo

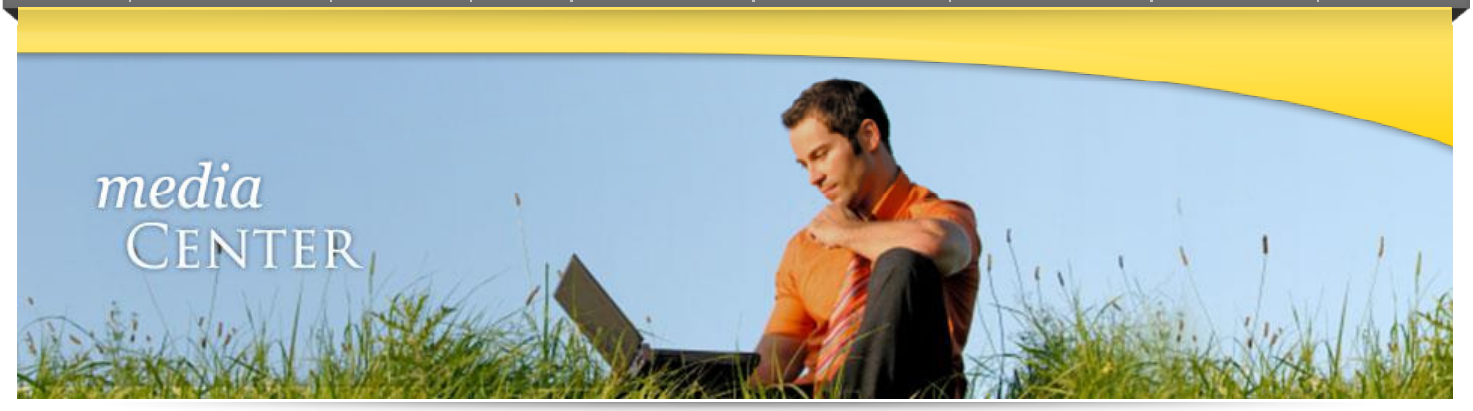
Glen Burnie Elks Lodge 2266, 878 Stevenson Road, Severn, will host a Coach and Michael Kors bingo on Nov. 7. The doors open at 5 p.m. and bingo begins at 6:30 p.m.

Twenty games will be played and door prizes will be awarded. Extras include specials, a 50-50 raffle, King Tuts, pull tabs and quickies. There will be a bake sale and other food and drinks will be sold.

Tickets cost $25 in advance or $30 at the door. Tickets purchased by Nov. 1 receive two bingo packets and a free raffle ticket for a special gift. All proceeds raised will benefit the lodge.

For tickets, contact **Janice Colbert** at 410-446-7465 or Janice_Colbert@yahoo.com.

To submit news items for Severn, Hanover, Jessup and Harmans, contact Atalie Day Brown at adbrownmdgazette@gmail.com or 301-697-1307.



Cholesterol: What's Good and Bad?

By: Dr. Jorge M. Ramirez

September is National Cholesterol Education Month and when many people hear the word cholesterol, negative thoughts usually come to mind.
However, cholesterol serves some important functions in the body. In order to understand how cholesterol affects the body, one must understand what cholesterol is.

Cholesterol is a waxy substance that is attached to the fats in our bloodstream and is present in the cells of our body. It comes from food that we eat, as well as being manufactured directly by the liver. Cholesterol is an important regulator in the bloodstream, as it helps to regulate the formation of many cells as well as hormones. However, to have too high of a cholesterol count in the blood can be a very dangerous factor, often leading to a heart attack or a stroke. Although cholesterol is prevalent in the blood stream, it cannot dissipate in the blood.

There are two main types of cholesterol. The first type is called LDL cholesterol, and the other is HDL cholesterol. LDL cholesterol, otherwise known as low-density lipoprotein, is considered the bad cholesterol. LDL cholesterol can build up on the artery walls. Over time this plaque build-up blocks blood flow, reducing circulation and causing stress and damage to the heart. This raises blood pressure, and eventually leads to heart disease or a heart attack. Individuals that have higher levels of LDL run a much higher risk of having heart disease. Although LDL is affected by genetics, there are several precautions that individuals can take towards keeping safe LDL levels.

The other form of cholesterol is HDL, or high-density lipoprotein. HDL is considered the good cholesterol. HDL cholesterol is important for the body because it helps filter out LDL cholesterol from the lining of the arteries, as well as transporting fat in the bloodstream (triglycerides) to the liver so that it can be excreted from the body. High levels of HDL are beneficial. It can help protect one's heart from a heart attack or stroke. Patients with low HDL are more prone to have a heart attack and stroke.

Most of the cholesterol in our bodies comes from the foods we eat. Foods high in fats, particularly saturated and trans fats, contribute to high levels of LDL cholesterol. Meat and dairy products are the main sources of LDL cholesterol, while leafy vegetables, fruits and nuts are more nutritious alternatives that have higher levels of HDL cholesterol. While genetics do play a role in cholesterol levels, a change in diet is the most effective way to lower dangerous cholesterol levels, and reduce your risk of heart disease and associated health problems.

As always, you should get your cholesterol checked each time during your annual physical. If your physician determines your level is not at the levels they need to be, he or she may ask you to change your diet, increase your exercise regimen, prescribe cholesterol lowering medications or suggest all three. Having a healthy cholesterol level is a major component of maintaining a healthy lifestyle.

Dr. Jorge M. Ramirez is chairman of the departments of medicine and cardiology at UM Baltimore Washington Medical Center and a clinical assistant professor of medicine at the University of Maryland School of Medicine. He can be reached at 410-768-0919.

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Staying Healthy: How to feel young at any age

By Priscilla Warnock

1:44 PM EDT, September 2, 2014

Staying healthy and feeling your best is important at any age and doesn't change just because you are a few years older. As we age, we experience an increasing number of major life changes and as many of us know coping with change can be difficult, no matter how old you are. The particular challenge for older adults is they may begin to experience declining health.

Healthy aging means continually reinvigorating yourself as you pass through landmark ages. It means finding new things you enjoy, learning to adapt to change, staying physically and socially active, and feeling connected to your community and loved ones. Unfortunately, for many, aging brings anxiety and fear instead. The truth is that you are stronger and more resilient than you may think!

Don't fall for the myth that growing older automatically means you're not going to feel good anymore. It is true that aging involves physical changes, but it doesn't have to mean discomfort and disability. While not all illness or pain is avoidable, many of the physical challenges associated with aging can be overcome or drastically mitigated by eating right, exercising and taking care of yourself. No matter how old you are or how unhealthy you've been in the past, caring for your body has enormous benefits that will help you stay active, sharpen your memory, boost your immune system, manage health problems and increase your energy.

As you age, your relationship with food may change along with your body. A decreased metabolism, changes in taste and smell and slower digestion may affect your appetite, the foods you can eat and how your body processes food. The key is to figure out how to adapt to your changing needs. Now, more than ever, healthy eating is important to maintain your energy and health.

•Load up on high-fiber foods such as fruits, vegetables and whole grains. Your whole digestive system does slow as you age, but fiber and more fluids will help you feel more energetic and give you fuel to keep going.

•Put effort into making your food look and taste good. Your taste buds may not be as strong and your appetite may not be the same, but your nutritional needs are just as important as ever. If you don't enjoy eating like you used to, put a little more effort into your meals, including the way you flavor, prepare and present your food.

•Watch out for dehydration. Because of physical changes, older adults are more prone to dehydration. So make sure you are drinking plenty of fluid, even if you don't feel thirsty. If you're not getting enough water, you're not going to be as sharp and your energy will suffer.

Many adults also don't exercise as they get older. However, exercise is vital for staying healthy throughout life. It helps you maintain your strength and agility, gives your mental health a boost and can even help diminish chronic

pain. Whether you are generally healthy or are coping with an ongoing injury, disability or health problem, regular exercise will help you stay physically and mentally healthy and improve your confidence and outlook on life.

•Check with your health care provider before starting any exercise program. Find out if any health conditions or medications you take affect what exercise you should choose.

•Start slow. If you are new to exercise, a few minutes a day puts you well on the way toward building a healthy habit. Slowly increase the time and intensity to avoid injury.

•Walking is a wonderful way to start exercising. Exercise doesn't have to mean strenuous activity or time at the gym. In fact, walking is one of the best ways to stay fit. Best of all, it doesn't require any equipment or experience and you can do it anywhere.

Remember the best thing we can do as we age is to embrace it! We can't turn back the hands of time, but we can control how we take care of ourselves.

Priscilla Warnock is a physician assistant at University of Maryland Baltimore Washington Adult and Senior Care in Millersville. She can be reached at 410-553-8092.

Healthy aging seminar

Priscilla Warnock, a physician assistant at University of Maryland Baltimore Washington Adult and Senior Care in Millersville, will host a free lecture, "Healthy Aging: Tips to Make 60 the New 40" Sept. 10 at Baltimore Washington Medical Center at 6:30 p.m. Reservations are required. Please call 410-787-4367.

BWMC opens new farmers market in Severn

By BRANDI BOTTALICO bbottalico@capgaznews.com | Posted: Tuesday, June 3, 2014 12:00 pm

SEVERN -- Van Bokkelen Elementary School will be the home of a new weekly farmers market featuring fresh produce and meat starting Thursday.

Baltimore Washington Medical Center will hold the market from 4 to 7 p.m. at the school, 1140 Reece Road in Severn, through Oct. 30. The location puts it near some of the county's lowest income residents in communities such as Meade Village.

“I’ve been trying for two years to get this market off the ground,” said Kim Davidson, hospital director of community relations. “I’m very happy that we’re able to do it this year.”

Davidson said the market is a way to address obesity, a focus of the Anne Arundel County Local Health Improvement Coalition.

"It’s going to be held at Van Bokkelen Elementary School, which is close to Meade Village and transportation is an issue for that community," Davidson said. "So having a farmers market close takes that access barrier away.”

This is the third year that BWMC has organized farmers markets, with the first opening at the hospital in Glen Burnie.

“Access to healthy food is a priority here in the county,” Davidson said.

There will be between eight and 12 vendors at the West County Farmers Market including Copper Penny Farm, Frost Arrow Farm and Wooden Spoon, which offers gluten free and vegan options.

“(We’re) trying to reach and serve a community to meet an unmet need which is a lack of fruits and vegetables,” Davidson said.

The hospital markets accept Women, Infant and Children, Supplemental Nutrition Assistance Program and Electronic Benefits Transfer, or EBT, benefits.

Anne Arundel County Economic Development Corp. operates the Piney Orchard Farmers Market, located in the parking lot of the Piney Orchard Community and Visitors Center. It opens for the season on Wednesday from 2 to 6:30 p.m. through Oct. 22.

The Army also operates one on Fort George G. Meade.

Pasadena: Local woman named Nurse of the Year

By KELLEY LEMONS Correspondent | Posted: Friday, May 23, 2014 2:00 am

Baltimore Washington Medical Center has named Pasadena resident June Bell as its Nurse of the Year for 2014. She received her award in a ceremony held May 9.

"I'm so honored to have won this award and very proud of the medical center," said Bell, a registered nurse in the medical center's Critical Care West department. "I am proud of what we do and where we are headed."

Bell, 47, also has worked in telemetry and the intensive care and post-anesthesia care units at the medical center and has been a dedicated hospital employee for 27 years.

Bell always wanted to be a nurse. She graduated from nursing school at Anne Arundel Community College and spent her first year after college at Good Samaritan Hospital before transferring to BWMC.

"Most people want to help others, especially when they are sick or in a time of need," Bell said. "It feels good to know that your contribution to this world is giving care to someone when they really need you."

Her colleagues said this year's Nurse of the Year has a strong passion for her job.

"It seems like she is always here working," said **Diane Clodfelter**, director of the Critical Care West department. "She provides care to each of her patients as if they are the only ones in the unit."

When Bell is not working, she is at home with her fiance **Tadd Kippeny** and her two sons, **Adam Sebert**, 24 and **Tom Sebert**, 21. In her spare time, she likes to bake, cycle the B&A Trail and Downs Memorial Park, and roller blade.

She also is a writer. One of her poems was read during a recent nursing symposium at the medical center. The poems help her deal with the effects of the nurse/patient relationship which is very important and special.

"There is no other profession in the world where you have such an impact on so many lives, there is nothing to compare to it," Bell said. "I am blessed and this is the way that I can give back to people."

Bell estimates that she encounters about 500 patients annually, and she takes none of them for granted.

"You never know people's journeys when they come to us and they are so trusting that we will take care of them — that we will make them better," she said. "That to me is incredibly humbling."

Military service

Active-duty military and veterans will be recognized in worship services at 4:30 p.m. Saturday and 8 and 10:45 a.m. Sunday at Galilee Lutheran Church, 4652 Mountain Road.

The church will use Memorial Day weekend worship as a time to thank God for the service of current members and friends of the congregation in the U.S. military. Military members will be invited to come forward to be recognized, including prayer thanking God for their serving.

A slide and sound presentation incorporating photos of members and friends of Galilee who have served or are serving in the military will precede the service.

For details, call the church at 410-255-8236.

Senior dance

The Stoney Creek Seniors will hold its monthly dinner and dance from 1 to 5 p.m. Sunday at the Stoney Creek Democratic Club, 8123 Fort Smallwood Road.

They will offer a catered ham dinner and music by the Odd Couple.

For details, call **Mary Lou Houtz** at 410-766-0541.

Pit beef sale

Riviera Beach Volunteer Fire Company, 8506 Fort Smallwood Road, will hold its monthly pit beef sale from 11 a.m. to 3 p.m. May 31.

There will be pit beef, ham or turkey sandwiches, fries and soda.

For details, call **Gloria Lewis** at 410-693-0020.

Opening weekend

Maryland Yacht Club, 1500 Fairview Beach Road, will hold its annual opening weekend, featuring its Queen of the Chesapeake Pageant, from 10 a.m. to 4 p.m. May 31 and June 1.

There also will be a lawn boutique featuring local artists, crafters and vendors and information on helping the waters of Rock Creek and the Chesapeake Bay.

Food and drinks will be sold.

The event is free and open to the public.

For details, email mycauxiliary@aol.com or visit www.mdyc.org.

Seeking vendors

Mount Carmel United Methodist Church, 4760 Mountain Road, is seeking vendors for its outdoor

flea market and vendor show from 8 a.m. to 2 p.m. June 7.

The cost for 10-by-10-foot space is $20. Vendors must bring their own table and tent.

All proceeds will directly benefit the Camp Hope Project

For more information, contact **Stephanie Donaldson** at 410-598-6498 or osluver@verizon.net.

Senior activities

Get on the bus with members of the Pasadena Senior Center, 4103 Mountain Road. The trip desk is booking June trips right now.

There will be a trip to Kentmorr Restaurant and Crab House on June 9. The $70 cost includes transportation, crab feast, taxes and gratuities. Enjoy waterfront sights from restaurant while feasting on steamed crabs, chicken, corn on the cob, salad, dessert, beer and soda for two hours. Then on the way home they will stop at an Eastern Shore produce market.

There will also be a bus trip to Kettle Kitchen Village in Intercourse, Pa., on June 18, with great shopping and food. The cost is $50 and includes transportation, gratuities, taxes, refreshments and lunch. An optional 35-minute buggy ride is an additional $13.

Happening next week at the center:
A spring concert by the retired teachers chorus Voices of Melody will be held at 12:30 p.m. Thursday. Refreshments will be served.
A mystery van trip for lunch will leave at 10:45 a.m. and return at 1:30 p.m. May 30.

The center will be closed on Monday for the Memorial Day holiday.

For details, visit www.aacounty.org/aging/activeseniors/pasadena.cfm.

Health Talk: Top 10 reasons to get a good night's sleep

By JACQUES CONAWAY Correspondent | Posted: Wednesday, May 7, 2014 3:00 am

Sleep is essential to good health and a happy, productive life. However, many of us sacrifice sleep to get things done, including demands of family, friends, the job and other activities.

According to the National Sleep Foundation, more than 35 percent of adults routinely get less than the optimal number of seven hours of sleep per night. Not only can inadequate sleep make you feel tired and sluggish, but potential health consequences can occur.

Cardiovascular disease and diabetes are two of many conditions that can afflict those with inadequate sleep.

Below are 10 reasons why getting a good night's sleep is beneficial to your health and overall happiness.

Less sleep, more pounds. Among people who sleep less than seven hours a night, the fewer zzzz's they get, the more obese they tend to be, according to a Institute of Medicine report. This may relate to the discovery that insufficient sleep appears to affect the hormonal balance of appetite. Leptin, a hormone which suppresses appetite, is lowered; ghrelin, a hormone which stimulates appetite, is increased.

You are more likely to make bad food choices. A study published in the *Journal of Clinical Sleep Medicine* found that people with obstructive sleep apnea, a sleep-related breathing disorder, ate a diet higher in cholesterol, protein, total fat and total saturated fat.

Diabetes and impaired glucose tolerance, its precursor, may become more likely. A study published in the *Archives of Internal Medicine* found that people getting five or fewer hours of sleep each night were 2.5 times more likely to be diabetic; those getting six hours or fewer were 1.7 times more likely.

Your heart is at risk. A study found that heart attacks were 45 percent more likely in women who slept five or fewer hours per night than in those who got more. It also found that too little sleep promotes calcium buildup in the heart arteries, leading to the plaques that can cause heart attacks and strokes.

Blood pressure may increase. Obstructive sleep apnea has been associated with high blood pressure. Obesity plays a role in both disorders, so losing weight can ease associated health risks.

Auto accidents rise. As stated in a report in the *New England Journal of Medicine*, nearly 20 percent of serious car crash injuries involve a sleepy driver — and that's independent of alcohol use.

Balance is off. Older folks who have trouble getting to sleep, who wake up at night or are drowsy during the day could be 2 to 4.5 times more likely to sustain a fall.

You may be more prone to depression. Adults who chronically operate on a sleep debt report more mental distress, depression and alcohol use.

You won't be as nice. Sleep loss negatively affects your mood, causing irritability, impatience and an inability to concentrate.

Your smarts may suffer. Sleep promotes learning, according to the *Harvard Women's Health Watch*. It helps the brain commit new information to memory, and researchers have found that people who sleep after learning a task do better on later tests.

Kids need testing for high cholesterol too

30 April 2014

By Betsy Stein

If your pediatrician has recently asked you to get your child's cholesterol tested, there's a reason.

In 2011, the American Academy of Pediatrics started recommending that all kids between the ages of 9 and 11 be screened for high cholesterol and then again between the ages of 17 and 21. Anyone over the age of 2 with a family history is also recommended for screening.

"Cholesterol in kids is what we call a silent issue," said Dr. Esther Liu, chairman of pediatrics at Baltimore Washington Medical Center. "High cholesterol puts you at risk for cardiovascular disease in adulthood, and it starts in childhood. ... It's a progressive disease, you don't think of it until you have a problem."

Dr. Ettaly Jobes, a pediatrician with Chesapeake Pediatrics in Annapolis, said the recommendation from AAP came about in part because of the increasing problem of childhood obesity. It also was discovered that children with high cholesterol actually have atherosclerosis, or hardening of the arteries, and that treating them earlier had more effect.

"We used to only screen kids who had a family history, but we were missing a lot of kids that way," Jobes said.

Parents should make sure to ask about cholesterol screening if their pediatrician doesn't mention it. Overweight children and those exposed to secondhand smoke are most at risk, Liu said, but any child could be affected.

Treating child high cholesterol

Most kids with slightly elevated cholesterol can be treated with lifestyle changes such as a healthy diet and activity, Jobes said. If it's significantly high, Jobes would refer the child to a cardiologist to prescribe medication.

To prevent problems, parents should make sure their kids have a well-balanced diet and are active.

"Some kids are dairy-a-holics," Jobes says. "They eat cheese dips, cheese pizza, cheese gold fish, cheese fries, cheese everything. Kids eat too much cheese and too much fried food."

Liu is a strong supporter of the 5210 Challenge — 5 or more fruits and vegetables every day, less than 2 hours of screen time, 1 hour or more of physical activity, and 0 sugary drinks.

"The biggest barrier to preventative medicine is that kids look fine. Even if your kid is a little overweight, they run around and look healthy," Liu said. "We need to start educating families that even though their kids don't look sick, they may be."

Since the new recommendations have gone into place, Jobes has found some unexpected results, however.

"I am personally surprised by the number of heavy kids who have normal cholesterol. I don't get it," she said. "It doesn't help me. I want it to be high so I can get them to do something about it. ... I wish I could tell their parents that it's poisoning their blood but in many cases, it's not."

At least not yet.

Battling an obesity epidemic: BWMC programs help residents lose weight

By WENDI WINTERS wwinters@capgaznews.com | Posted: Monday, March 10, 2014 12:30 am

The statistics in this county are sobering. Enough to make you reach for a chocolate bar.

Better make that a celery stick.

An estimated 63.1 percent of adults ages 18 and older in this county are overweight or obese, according to Anne Arundel County Department of Health data. Nationwide, 68 percent of Americans are overweight or obese.

In this county, 17.3 percent of youth ages 2 to 19 years are obese and another 15.1 percent are overweight. Nationally, 21 percent of adolescents aged 12-19 were obese in 2012, according to Centers for Disease Control and Prevention data. Overweight or obese children generally grow up to be overweight or obese adults.

In a continuing battle against the obesity epidemic, University of Maryland Baltimore Washington Medical Center has partnered with Anne Arundel Community College to screen a four-part HBO documentary "The Weight of the Nation."

"Our goal is to have people make lifestyle changes to reduce the incidence of heart disease and strokes, high cholesterol, high blood pressure and joint issues," said Kim Davidson, BWMC's director of Community Affairs. "Not a lot of good comes from being obese as it puts a lot of pressure on your body's systems."

The first screening will be 5:30 p.m. on April 2 at UM BW Health Services, 7556 Teague Road in Hanover.

The next three editions will be screened at 5:30 p.m. April 9, 16 and 23.

The documentary dispels myths and shows how obesity impacts the nation's health and its health care system.

"When you take a look at county statistics, coronary heart disease is at the top of the list for mortality in Anne Arundel County," Davidson said. "Obesity, lack of exercise and bad diet are contributing factors."

The April 16 screening is devoted to childhood obesity.

A complimentary dinner will be provided and participants can attend one or all four screenings. Pre-

registration is required as seating is limited. For more information or to register for The Weight of the Nation, visit www.mybwmc.org/WOTN or call 410-787-4367.

“This documentary is not profiling people making a sudden weight loss like contestants on ‘Biggest Loser.’ Instead, its about people learning to eat healthy and adopting exercise,” said Davidson.

Amy Allen-Chabot, professor of nutrition and biology at Anne Arundel Community College will lead a discussion on obesity and the importance of healthy eating.

Walking off weight

Veronica Telfer, 51, of Severn, works as a cafeteria cook at Pershing Hill Elementary School.

“I used to weigh 240 pounds,” she said. “This morning I was 150 pounds and have been down to 145 pounds.”

A mother of two, aged 21 and 18, said the weight crept on her. When she got married 24 years ago, she was 130 pounds. But in 2009, she got a rude awakening.

“I wasn’t feeling good. I was seeing spots,” she said. Diagnosed with Type II Diabetes, an endocrinologist put her on medications. Telfer did not envision a lifetime of taking the medicines; she whittled her body back to better health through exercise and diet.

“I got away from eating starches like rice, potatoes and bread. I eat a salad, a vegetable and a meat dish at dinnertime,” she said.

She also enrolled in a free BWMC program, called Mills Milers Walking Program. Every morning at 7 a.m. at least a 100, dressed in casual clothes or exercise outfits, arrive at Entrance 4 of Arundel Mills Mall. There they walk around the mall’s interior hallways.

“A loop is a mile to 1.3 miles. I try to go around eight times and can clock a mile in 17 minutes,” said Telfer. “The walking program is so easy. I can walk regardless of the weather or temperature outside.”

Health Talk: How exercise benefits your heart

By Dr. RANAKAR MUKHERJEE Correspondent | Posted: Wednesday, February 19, 2014 4:00 am

Everyone knows that exercise can have a number of positive benefits for your overall health, helping to increase your energy level and dramatically reduce the risk of coronary artery disease.

It also helps lower blood pressure and cholesterol levels and aid in weight control. Exercise also appears to give self-esteem a measurable boost and improve your sense of well-being.

Cardiovascular exercise is important at any age, but especially as we get older. Many of the problems commonly associated with aging — increased body fat, decreased muscular strength and flexibility, loss of bone mass, lower metabolism and slower reaction times — are often signs of inactivity that can be minimized or even prevented by exercise.

Exercise also indicates how fit you are. Fitness is defined as "the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies."

Yet, physical fitness means different things to different people. It's also a relative term, in that you may be fitter than you were last year or than your neighbor, but there's no clear-cut point at which you are "fit." One fact is clear, though: If fitness is the goal, exercise is the way to get there.

There are four basic elements of physical fitness: cardiovascular endurance, muscular strength, muscular endurance and flexibility. Each can be measurably improved with regular exercise.

But keep in mind that exercising to build fitness is not the same thing as working out to improve athletic performance. To be truly fit, you should develop all four elements into your exercise routine.

While each element is a part of being fit, the most vital is cardiovascular endurance. Physiologically, cardiovascular endurance is the sustained ability of the heart, blood vessels and blood to carry oxygen to the cells, the ability of the cells to process oxygen and the ability of the blood to carry away waste products.

Since every cell in the body requires oxygen to function, there is no more basic element of fitness than this — to see that the heart, lungs and circulatory system do their job.

Cardiovascular endurance is built up through exercises that enhance the body's ability to deliver even larger amounts of oxygen to working muscles. To achieve this, the exercise must utilize the large muscle groups (such as those in the legs) and, most importantly, it must be sustained. With regular aerobic exercise, your heart will eventually be able to pump more blood and thus deliver more oxygen

with greater efficiency.

Moreover, your muscles will develop a greater capacity to use this oxygen. Because your heart is stronger, it can pump more blood per beat and, as a result, your heart rate both at rest and during exertions will decrease. Your heart will also acquire the ability to recover from the stress of exercise more quickly.

In order to achieve a training effect, the American College of Sports Medicine suggests performing aerobic exercise sessions of 15 to 60 minutes a day, three to five days a week.

Furthermore to get the most from aerobic exercise, you should exercise at a level of intensity called your training heart rate. The easiest way to compute this is to subtract your age from 220 — that's your maximum heart rate — then take 60 percent and 80 percent of that number.

The results are the upper and lower end of your target heart rate zone: while you exercise, your heart rate per minute should fall somewhere between these two numbers.

Remember, before embarking on any exercise program do it gradually, and please consult with your physician to screen for any underlying heart disease or condition.

Pasadena heart attack survivor: 'Don't be stupid. Call 911'

By WENDI WINTERS wwinters@capgaznews.com | Posted: Friday, February 7, 2014 11:00 am

'I am not having a heart attack," Karen McCann remembers screaming from her kitchen. "I'm too young! I go for checkups! My cholesterol is good!"

"I'm calling 911!" her neighbor Kim Kurtz screamed back.

McCann was indeed having a heart attack — a rare type that came without any of the usual signs of heart disease.

At the hospital, doctors found she had spontaneous coronary artery dissection.

Eighty percent of SCAD's victims are women, many of them pregnant, suffering from hypertension or with high levels of estrogen.

The mortality rate is 70 percent. Those who survive have a 20 percent chance of a recurrence.

In such patients, a violent sneeze or extreme physical exertion can tear a coronary artery, allowing blood to force apart the layers of the arterial wall. The resulting blockages can mean sudden death.

McCann, a 46-year-old mother of three from Pasadena, doesn't remember sneezing. But she had moved firewood a few days earlier.

She felt fine the Sunday after Thanksgiving, going to a Coach bingo game to support Chesapeake High School. After coming home, McCann began packing Thanksgiving leftovers.

"I took a bite of the coleslaw and suddenly felt dizzy. Like the onset of vertigo," she said.

McCann grabbed the counter and called to Kurtz and her daughters — Jacqueline McCann Allport, 21, and Alexander McCann, 12 — for help.

McCann didn't want her neighbor calling 911. It would pass.

"But it got worse," she said. Eventually, she pleaded with her kids and Kurtz: "Please don't let me die!"

The call was made.

"People who suspect they are having heart attacks or strokes should not drive themselves to the hospital — or have someone drive them," said Claudia Cavey, a cardiac rehabilitation specialist at Baltimore Washington Medical Center. "You don't want to be behind the wheel under those kind of situations.

"Nobody thinks you are silly if you come into the ER with chest pains," Cavey said.

At the hospital, a doctor inserted a balloon pump into McCann's artery to hold it open until it could be surgically repaired. She was hospitalized for seven days.

Today, she is in BWMC's Cardiac Rehabilitation Program, which is conducted in a large room on the lower level of the hospital's main building.

The room is filled with treadmills, racks of free weights and other exercise equipment. Participants wear hospital wristbands. Suspended around their necks, in little white cloth bags, is miniature heart-monitoring equipment.

"Men have a higher incidence of heart disease, heart attacks, bypass surgery, valve replacements or stents — but women are catching up," Cavey said. "What they have in common is high blood pressure, stress, a sedentary lifestyle — or they smoke."

Cavey plans to give McCann an "exercise prescription" she can use at her own gym — a program that exercises upper and lower extremities while building strength and promoting aerobic conditioning.

It has been two months since her heart attack, and McCann looks refreshed and vibrant. She is grateful her daughters and neighbor ignored her and called for an ambulance.

"I tell people now, 'Don't be stupid. Call 911.'"

For information about BWMC's Cardiac Rehabilitation Program, call 410-553-2932.

Dancing – a fun way to help your heart

By WENDI WINTERS wwinters@capgaznews.com | Posted: Friday, February 7, 2014 11:00 am

Sheila Light, 67, may be the liveliest person at the upcoming Heartbeat for Health event at the Severna Park Community Center.

Light, of Pasadena, is a professional dancer, has taught dance classes for 33 years and is the founder of RU Fit, LLC.

With a cadre of instructors, Light teaches aerobic dance, yoga and exercise classes at the Severna Park Community Center. She also leads classes at Baltimore Washington Medical Center.

"Some people — especially those we teach at BWMC — might have heart issues," Light said. "We want to keep them healthy and stress-free."

Heartbeat for Health, from 10 a.m. to 2 p.m. on Feb. 15, is an annual free event that highlights dance and exercise as ways to prevent heart disease.

Medical studies prove that 15 minutes of daily exercise enhances fitness. Dancing makes that exercise more fun, adding laughter, camaraderie, social interaction — perhaps even flirting.

The event will feature dance demonstrations by instructors from RU Fit and other area dance studios. There will be free health screenings for cholesterol, bone density, blood pressure and body mass index, as well as refreshments and promotional giveaways.

At 10:45, attendees can try merengue or salsa. There will be country line dancing at 11:05, hip-hop at noon, a hula hoop concert at 12:45 and a 45-minute belly dancing class at 1 p.m. At 1:45, there will be open

dancing.

Between the informal classes, attendees will be able to watch performances by area dance companies.

The Severna Park Community Center is at 623 Baltimore

Annapolis Blvd. in Severna Park.

For more information about Heartbeat for Health, call

410-787-4367. Registration is not required.

BWMC offers 10-week programs for $50 at the medical center, 301 Hospital Drive, Glen Burnie. Classes meet weekly.

Classes are offered in aerobics, yoga, beginning yoga/Pilates, yoga for a healthy back and core, and yoga for stroke patients.

One course, Fitness Fusion, combines yoga, boxing, dancing,

Pilates, weight training and meditation for a full-body workout.

For information, visit mybwmc.org/exercise.

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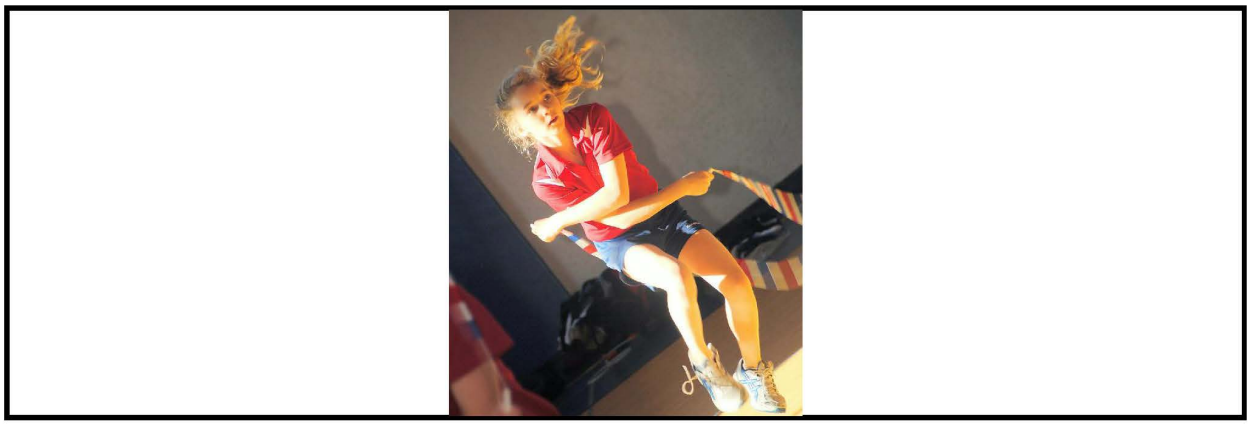

Jenna Meek of Kangaroo Kids demonstrated the fun of physical activity when she jumped rope at a previous year's Heartbeat for Health, Baltimore Washington Medical Center's wellness-discovery event for the whole family. This year, Heartbeat for Health will take place February 15 at the Severna Park Community Center.

BWMC To Host Ninth-Annual Heartbeat For Health On Feb. 15

Dylan Roche February 6, 2014

UM Baltimore Washington Medical Center (BWMC) is proud to sponsor the ninth-annual Heartbeat for Health on Saturday, February 15, at the Severna Park Community Center. The event, which promises fun and education for the entire family, runs from 10:00am to 2:00pm with plenty of demonstrations and activities for community members to learn about how to make a positive change toward their well-being.

"Our goal every year is to get people up and moving," said Kim Davidson, BWMC director of community relations. "We try to make it fun and get people thinking about their health."

Many of Heartbeat for Health's popular activities from years past will return this year, including dance demonstrations and free health screenings. Attendees can find out about their cholesterol, bone density, body mass index and blood pressure, and learn how to take steps toward improving their numbers. They can also discover the excitement of physical activity by learning merengue, salsa, country line dancing, belly dancing, hip-hop and other movements,

and even participate in a Hula-Hoop contest. Informative exhibits will provide insight into a variety of topics from nutritious eating to cancer prevention.

Other parts of the day include door prizes, healthful refreshments, open dancing and a CPR demonstration – everyone is sure to go home with a renewed sense of how important it is to be health-conscious. For more information on Heartbeat for Health, contact the medical center's marketing and communications department at 410-787-4367.

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Health Talk: Know the signs of vascular disease

By JUSTIN NELMS Correspondent | Posted: Wednesday, February 5, 2014 4:00 am

Although not as common as cancer or heart disease, vascular disease is among the leading causes of death and disability in the United States.

Vascular disease is mainly caused by hardening of the arteries, also called atherosclerosis, due to a thickening of the artery lining from fatty deposits or plaques. The arteries are blood vessels that supply blood, oxygen and nutrients to the body from the heart.

Narrow, hardened arteries make it more difficult for blood to flow through and reach the tissue in question. Those parts of the body most affected by this disease suffer the consequences of an inadequate blood supply: poor function, tissue damage and, in worst cases, heart attack, stroke or even death.

Atherosclerosis affects many people. It can start at the age of 20, increases with advancing age and is prevalent after the age of 50. The exact cause is unknown, but several risk factors accelerate the formation of fatty deposits in the arteries:
Smoking.
Family history of vascular disease, angina, heart attacks or stroke.
Being overweight.
An unhealthy diet.
Lack of exercise.
Diabetes.
Being male.
High blood pressure
High cholesterol.
Stress.

Diagnosis is made on the basis of your medical history and symptoms. If there is diagnostic doubt or difficulty with treatment, then a referral to a specialist for further assessment will help in the management of the condition.

Additional tests include Doppler ultrasound imaging and a CT scan or angiography, where dye is injected to make the arteries visible on X-rays.

The most important thing is to prevent atherosclerosis from developing. First, think about whether you belong to any of the risk groups.

Risk factors are cumulative — the more you have, the greater the risk of developing a significant

problem with cardiovascular disease.

To minimize your risk:
Quit smoking — Stopping smoking has been shown to reduce the risk of cardiac problems by 50 percent after only one year.
Eat a varied and healthy diet, including lots of vegetables and products that are high in fiber and low in fat.
Avoid saturated fats (animal fat) in preference to fish and vegetable oils.
Lose weight if you are overweight.
Exercise more.
Maintain treatment for diabetes or high blood pressure.

See your physician if you think you have any of the symptoms listed above or if you feel you are at risk of vascular disease. He or she can assess your risk and decide whether further medication or an assessment by a vascular specialist is necessary.

Health Talk: Healthy and easy resolutions for the new year

By ASIMA RAHMAN Correspondent | Posted: Wednesday, January 15, 2014 4:00 am

It's January, so you know what that means — time for another set of New Year's resolutions.

Did you know that most people give up on their resolutions in less than 10 days? That might be because we're too busy or the goals are not always realistic.

What we need to do is make attainable resolutions and make plans on how to accomplish them. And there are no better — or easier in my opinion — resolutions to make than those dedicated to living healthier.

Let's take exercise. Yes, everyone says they want to lose weight, and gyms and athletic clubs are packed during the first two weeks of January. But by the end of the month, the numbers start to dwindle. Maybe exercising more is one of your goals, so start by taking small steps toward that goal like walking this week, then next week walking twice, then after a while you can jog and so on.

The important thing to remember is to make resolutions that are achievable. Below are three healthy resolutions anyone can accomplish.

1. Eating healthy. Yes, this is a common goal but is often hard to stick with. Our bodies were created to eat whole foods like fruits, vegetables, nuts, seeds, beans, lentils and whole grains. It was not designed to consume overly processed items with ingredients such as MSG, food dyes, artificial flavors, sweeteners and refined sugars. I'm not saying you should never eat processed foods, but an important step to take would be to read the ingredients. Find out if the ingredients have whole foods that are going to nourish your body.

2. Think positively. If you are thinking negatively about things, it's not a surprise that you are not living to your fullest. Is your glass half empty or half full? Researchers continue to explore the effects of positive thinking and optimism on health. Health benefits of positive thinking may include:
Increased life span.
Lower rate of depression.
Lower rates of distress.
Greater resistance to the common cold.
Better psychological and physical well-being.
Lower risk of death from cardiovascular disease.
Better coping skills during hardships and times of stress.

3. Follow a schedule. I know this is one you don't hear much, if at all, but keeping to a schedule really

does work and for those of you who do not, you should give it a try. If you don't make a plan, then you may be losing valuable time. No schedule should be set in stone but having one that is used as a guideline helps you get more things done and helps bring order to your life which can reduce stress.

These are three easy tips, or resolutions, you can make in 2014 to live a little bit healthier and easier. Good luck!

Health Talk: Ways to avoid holiday weight gain

By JONATHAN McCOY Correspondent | Posted: Wednesday, November 20, 2013 2:00 am

It's that time of year when extra calories from the upcoming holidays can lead to extra pounds. Cakes, pies and cookies at the office party, a second helping at Thanksgiving dinner and a cocktail or two at happy hour.

All of these extras add up and, as a result, you may be putting on more than a pound or two by Jan. 1.

So what's the harm in a little holiday weight gain, especially if it's just a pound? Research shows most Americans never lose the weight they gain during the winter holidays. The pounds add up year after year, making holiday weight gain an important factor in adult obesity.

But you don't have to fall into this trap. It is possible to enjoy holiday treats without putting on a single pound. Remember — portion control is the key. It is not so much what you eat, but how much you eat!

Of course, it's not easy to go on portion patrol when the temptations are endless. However, if you follow these tips, they can help you avoid overindulging and consuming one too many calories.

Never arrive hungry

Don't go to a party when you're starving. Try to have a nutritious snack beforehand. If you do arrive hungry, drink some water to fill up before filling your plate.

Divert your attention

Don't look at the party as just a food event. Enjoy your friends' company or dancing. Focus on something other than food.

Pace yourself

Don't eat too fast. If you cram in as much as you can in half an hour, you chew faster. Chewing more slowly will fill you up with less food.

Outsmart the buffet

When dinner is served buffet-style, use the smallest plate available and don't stack your food; limit your helpings to a single story. Fresh fruits and vegetables and shrimp cocktail are good choices. Watch out for sauces and dips.

Limit alcohol

Avoid drinking too much alcohol at holiday parties. If you drink a lot, you won't have as much control

over what you eat.

Be choosy about sweets

When it comes to dessert, be very selective. Limit your indulgences to small portions and only what is very sensual to you.

Bring your own treats

Whether you're going to a friend's party or an office potluck, consider bringing a low-calorie treat that you know you'll enjoy. Bringing your own dessert will make the more fattening alternatives less tempting.

Walk it off

Make a new holiday tradition: the family walk. Besides burning some extra calories, this will get everyone away from the food for a while.

Remember you can enjoy the holidays and the delicious foods used to celebrate this special time of year. Just remember to consume in moderation!

Health Talk: The facts about lung cancer

By GALEN OHNMACHT Correspondent | Posted: Wednesday, November 6, 2013 4:00 am

When you think of certain cancers, which ones come to mind? Breast? Prostate? Colon? Pancreatic?

Truth be told, lung cancer kills more Americans than any other type of cancer.

Lung cancer is responsible for an estimated 160,000 deaths in the United States annually. There are two major types: non-small cell lung cancer and small cell lung cancer, so named because of how the cells look under a microscope.

Non-small cell lung cancer is more common, and it generally grows and spreads more slowly. There are three main types of non-small cell lung cancer, named for the type of cells in which the cancer develops: squamous cell carcinoma, adenocarcinoma and large cell lung cancer.

Small cell lung cancer grows more quickly and is more likely to spread to other organs in the body.

Signs, symptoms

A persistent cough that gets worse over time.
Constant chest pain.
Coughing up blood.
Shortness of breath, wheezing or hoarseness.
Repeated pneumonia or bronchitis.
Swelling of the neck and face.
Loss of appetite or weight loss.
Fatigue.

What causes it?

Exposure to carcinogens (cancer causing agents) damages DNA in the cells of the body. The major cause of lung cancer is cigarette smoking.

Other contributing factors include environmental tobacco smoke, occupational exposure to carcinogens and diet.

Who is at risk?

Tobacco smoke is the biggest carcinogen, responsible for 85 percent of all lung cancers in the United States. Risk increases with the amount of tobacco used and the amount of time it has been used.

Nonsmokers exposed to tobacco smoke are also at risk of developing lung cancer. Other forms of tobacco use, such as cigar smoking and pipe smoking, are also associated with lung cancer. Other risk

factors include:
Family history.
Environmental and occupational exposure to certain substances, including arsenic, asbestos, ether, chromium, silica, cadmium, nickel and radon.
Exposure to excessive radiation (wartime or industrial exposure, or radiotherapy to the chest).
Lung diseases, including chronic obstructive pulmonary disease.
Poor diet (diets high in fruits and vegetables may reduce risk).

Prevention

The best means of prevention is to never start smoking or chewing tobacco or to stop using tobacco products.

A healthy diet is also an important part of prevention.

Treatment plan

A treatment plan depends on the cell type, stage of disease, possibility for removing the tumor and the patient's ability to survive surgery.

Drug therapies

Various therapies can treat lung cancer.

Chemotherapy can control cancer growth and relieve symptoms.

Photodynamic therapy involves injecting a chemical into the bloodstream, which is absorbed by cells all over the body, including cancer cells. A laser light activates the chemical, which then kills the cancer cells. Photodynamic therapy may be used to control bleeding, relieve breathing problems or treat very small tumors.

Surgery, options

Surgery is the only treatment capable of curing non-small cell lung cancer. Removal of a small part of the lung is a segmental or wedge resection, removal of an entire lobe of the lung is a lobectomy, and removal of an entire lung is a pneumonectomy.

Radiation therapy is used before surgery to shrink a tumor, or after surgery to destroy remaining cancer cells. Radiation therapy may also be used instead of surgery, or it may be used to relieve symptoms such as shortness of breath.

Prognosis

The outlook varies by cell type and stage of the disease. In general, the prognosis is better for squamous cell cancers than for adenocarcinomas. Early detection improves chances of survival.

Follow-up

Periodic follow-up is useful to help to detect recurrence of the lung cancer or other smoking-related cancers. Frequent follow-up and rehabilitation for loss of lung function from cancer, surgery or other treatment may be necessary.

Above else, make sure you keep your scheduled appointments with your health care provider!

Health Talk: Trans fat and cholesterol – what can I eat?

By BRIDGETTE C. PROVOST Correspondent | Posted: Wednesday, September 4, 2013 4:00 am

Recent media stories about fats in food, particularly trans fat, have many people asking: What is trans fat? Or what can I eat?

Trans fats are created by chemically modifying vegetable oil through partial hydrogenation, a process whereby hydrogen is forced into the oil until it reaches the desired consistency. It was initially used years ago to reduce the amount of saturated fat in foods and had the added benefits of being inexpensive, producing crispy fried foods and making baked goods with an extremely long shelf life.

Sounds great in theory, but over time research has shown that trans fats increase your risk of heart disease even more than saturated fats. Both saturated fats and trans fats increase your LDL, or "bad" cholesterol, but trans fats also decrease your HDL, or "good" cholesterol, putting you at even higher risk for having a heart attack.

In addition, trans fats may interfere with your body's metabolism of omega-3 fatty acids like fish oils, which are important in the prevention of heart disease and complications of pregnancy.

You may be asking yourself, "Am I eating trans fats?" It's likely that you are. The average American consumes 5.8 grams of trans fats daily, mostly from store bought snacks, such as cakes, cookies, chips, crackers, fried fast food and margarine.

The American Heart Association recommends limiting trans fats to less than 2 grams daily in a 2,000-calorie diet. This advice became easier to follow last year, when the FDA mandated that trans fats be listed on all nutritional labels. However, since trans fats do not have to be listed if the amount is less than 0.5 grams per serving, another clue to look out for their presence is the term "partially hydrogenated" on the ingredients list.

Perhaps your next question is, "What can I eat?"

The good news for consumers is the type of fat you eat is more important than the total fat. Replacing saturated fats and trans fats in your diet with monounsaturated fats like olive oil and polyunsaturated fats like fish oil may decrease your bad cholesterol and triglycerides, thereby reducing your risk of heart disease and stroke.

Here is how to do it:
Avoid store bought packaged snacks. Substitute natural alternatives, like fruits and vegetables or whole

grain products.
Replace stick margarine with soft margarines. Squeeze margarine is best, followed by tub margarine.
When oil is needed for a recipe or cooking, use olive oil or canola oil.
Eat at home. Read nutritional labels for content of trans fats.

Because of increased knowledge of the risks associated with trans fats, we can look forward to an overall reduction in its use. Some restaurant chains have already or are in the process of reducing or eliminating trans fats in the near future.

So limit your trans fat intake and, if you are still confused on what you should eat, you can always stick to fruits and vegetables.

Around Severna Park: The beat goes on for heart health, the arts

By SHARON LEE TEGLER, For The Capital | Posted: Thursday, February 21, 2013 11:00 am

Dancers dazzled crowds at Saturday's "Heartbeat for Health" event presented by Baltimore Washington Medical Center at the Severna Park Community Center.

Dance performances in the Andy Borland Gymnasium were the primary focus, but a range of health tests and services were also offered free to the public throughout the day.

Kicking things off at 10 a.m., R U Fit Exercise instructor **Amy Noel** invited attendees to join her for a warm-up yoga session — good preparation for activities that followed. By 10:45 a.m., music with a Latin beat echoed through the gym as R U Fit's **Mandy Davis** and students performed an exhilarating Zumba routine, then taught the dance/fitness routine to the audience. **Kathy McIntyre** and the Silver Liners appeared next, providing a western flair with country line dancing.

Just before noon, teens from Pasadena-based Dancers Dreams Gems took center stage performing a vibrant hip-hop number. The essence of "rapper cool" in their black dance togs and combat boots, the senior dancers got everyone in the groove. Junior dancers, ages 9 to 14, followed with similarly cool moves.

Getting people moving was a goal of Heartbeat for Health, so the two groups united, grabbed audience members and gave them one-on-one hip-hop instruction.

The age level of performers rose when senior citizens from the South County Showstoppers appeared in vintage costumes for several routines starting with a stylized jitterbug by **Pat** and **Wayne Sipe**. The Sipes have jitterbugged since the 1950s and are amazing dancers who perform energetic flips with complete abandon. Additional members of the Edgewater-based group performed '50s rock 'n' roll, '60s twists, '70s disco and modern-day tap and social line dancing.

Cindy Welsh and **Sue Oberthaler** of the Showdtoppers' Sensation Tappers said the organization raises substantial funds for the county food bank and other charities by performing at community events.

An air of anticipation prevailed at 1 p.m. as the strains of Middle Eastern music were heard. A moment later, the exotically costumed belly-dancers of Gypsy Fusion appeared in dreamlike procession. The Millersville-based troupe directed by **Despina Bast** performed classically influenced belly dances, a veil dance and a sabre dance. Expert teachers, Bast and the troupe then shared belly-dancing techniques with crowd members.

While performances continued, people browsed the exhibit areas where health services were provided by Baltimore Washington Medical Center. Heart-healthy fruits and vegetables, delicious vegetarian wraps, spinach balls and artichoke frittatas provided by Glen Burnie-based Bamboo Bernie's Catering were especially popular. And there were long sign-up lists for stress-relieving massages administered by Massage Envy's **Travis Lynch** and **Alia Pabalate**.

Blood sugar, bone density, blood pressure, cholesterol and vascular screenings conducted by BWMC personnel were also in demand, and there were displays educating attendees on preventative care.

Respiratory therapist **Lorenzo Reid** used human-sized pig's lungs connected to a respirator to illustrate the harmful effects of smoking. The smoke-free lung, pink and pumping strongly, was clearly healthier than the lung exposed to cigarette smoke, which was black, cancerous and exhibited a reduced ability to pump oxygen.

As the afternoon ended, many of those filing out stopped to thank BWMC staffers and record their comments on review forms.

Artist honored

Severna Park artist **Linda Gosman** was overwhelmed when commissioned by Air Force Col. **Gina Humble**, commander of the 11th Operations Group, to create a watercolor depicting an Air Force funeral at Arlington National Cemetery. The 480-person unit, which conducts all Air Force burial services at the cemetery, is attached to Joint Base Anacostia-Bolling and includes the USAF Honor Guard, USAF Band and USAF Arlington Chaplains.

Gosman receives many commissions, particularly for portraits, but was astounded when asked to memorialize and embody the spirit of what the unit does in a painting to hang in 11th OC headquarters. The watercolor has also been reproduced as a print to be given to special guests and service members leaving the unit. The artist described the experience.

"I was asked to attend three funerals at Arlington, which I photographed from many angles. I then used Photoshop to generate an image of what I would paint," she said.

"But, when I showed the image to Col. Humble, we realized that different parts of the ceremony were shown out of order. To solve the problem, the unit staged a 'mock funeral service' for me with the band, honor guard, chaplains and firing squad in attendance so I could get an accurate representation of where they'd be standing."

Gosman, who began drawing and painting when she was very young, is a talented hair stylist and freelance writer. But, painting remains her primary passion. She loves working in the sunny studio in her home. She's worked in oils but prefers doing watercolors because of the challenge and exacting nature of the discipline.

It was a great honor to have her painting unveiled at a special ceremony at Bolling Air Force Base

attended by many military dignitaries. Following a reception and a tour of the base, Gosman and her husband enjoyed lunch with Humble.

For more information about Gosman's art, email her at lindagosmanfineart@gmail.com.

Health Talk: Ladies: Learn, lower and listen!

By Dr. KELLY MILLER, For the Maryland Gazette | Posted: Wednesday, February 20, 2013 2:00 am

February is American Heart Month, and the campaign is designed to raise awareness of cardiovascular disease (heart attack and stroke), especially in women.

The cause of cardiovascular disease is atherosclerosis, the process of cholesterol deposition, inflammation and narrowing of the arteries feeding different organ systems. When atherosclerosis develops in the arteries of the heart, it is called coronary heart disease and can lead to a myocardial infarction or "heart attack."

Despite advances in treatment, coronary heart disease remains the No. 1 killer of Americans, both men and women. There are more than 13 million patients in the U.S. with heart disease and more than 1.3 million heart attacks per year.

Though death from coronary heart disease has been declining dramatically in men, women have not experienced this same dramatic reduction. Between the ages of 45 and 64, one in nine women are diagnosed with coronary heart disease. After the age of 65, that number jumps to one in three.

What can you do to improve your cardiovascular health and improve your chances of not being one of the 13 million? Learn, lower and listen.

Learn about your individual risk for developing cardiovascular disease. Though age is the strongest risk factor, with women over the age of 65 at greatest risk, many younger women are at significant risk. A strong family history of coronary disease, defined as a first-degree male relative having a heart attack before the age of 50 or first-degree female relative being affected before age 60, is a strong risk factor.

Diabetes is such a strong risk factor that most doctors treat patients with diabetes as if they already have coronary heart disease. Smoking, high blood pressure, obesity and high cholesterol (LDL over 130 mg/dL, elevated triglycerides and low HDL) also incrementally increase your risk of both the development of atherosclerosis and of having a heart attack.

Finally, having metabolic syndrome raises your cardiovascular risk. Metabolic syndrome is defined as:
An elevated waist circumference — women equal to or greater than 35 inches, men equal to or greater than 40 inches.
Elevated triglycerides — greater than 150 mg/dL.
Reduced HDL — women less than 50 mg/dL, men less than 40 mg/dL.

Elevated blood pressure — greater than 135/85 mmHg.
Elevated fasting blood sugar — greater than 100mg/dL.

Go to your doctor and get these labs done. Get a scale and a tape measure. Calculate your body-mass index (www.bmi-calculator.net) or have your doctor do it for you. A normal BMI is between 18 and 25. If your BMI is over 30, you are considered obese. With this information, you are ready to take the next step.

Lower you risk. You cannot change your age or your family. You can learn about your family history to better communicate with your doctor and help assess your risk. You definitely can stop smoking. If you need help, talk to your doctor. There are many new treatments available and, remember, the average person tries to quit eight times before being successful.

If you have diabetes, you can improve your blood sugar control through diet and medication. The same goes for hypertension. Your cholesterol can be improved through diet and exercise, but often medications are required to both lower cholesterol and more importantly slow or halt the process of atherosclerosis.

If you are obese and have two or more risk factors, you should lose weight. Even a small amount weight loss (just 10 percent of your current weight) will help to lower your risk of developing cardiovascular disease. You can exercise. The guidelines recommend 30 minutes of moderate exercise five days a week.

Listen to your body. The most common heart attack symptom is chest pain or discomfort. Women, however, are more likely than men to experience other common symptoms including shortness of breath, heartburn, nausea/vomiting and back or jaw pain. Learn the signs of a heart attack, but remember, if you feel discomfort and are not sure it’s a heart attack, have it checked out right away. Acting fast could save you life. Don’t wait more than five minutes to call 9-1-1.

Women tend to spend a great deal of time worrying about and caring for others, often ignoring or neglecting their own health. If you want to be alive and healthy for the people you care for, make yourself a priority. With regards to your heart health: learn, lower and listen. Then, lend this article to the people you love!

Health Talk: Know the signs of a heart attack

By JORGE M. RAMIREZ, For the Maryland Gazette | Posted: Wednesday, February 6, 2013 2:00 am

You've just returned home from a dinner party when you feel a sudden tightness in your chest. Is it indigestion or could it be something more?

Most people believe severe chest pain is the only symptom of a heart attack, but the warning signs can be much more subtle. Many patients are surprised to learn they have had a previous heart attack because they did not experience chest pain. These types of heart attacks are called "silent heart attacks." Knowing the warning signs and seeking help immediately could save your life.

Chest pain is the most reported symptom of a heart attack and can range from a feeling of heaviness to severe and unrelenting pain. Heart attacks can cause pain in the upper body as well. Upper back pain or pain in either arm can indicate a heart attack. Pain in the neck or jaw can also indicate a heart attack; this is called "referred pain" which can radiate from the chest to any part of the upper body.

Sweating is also a common sign of a heart attack and is not from physical exercise but from the exertion the body is going through to survive. Nausea is another symptom and patients usually feel ill and may or may not have chest pain. This can also be accompanied by a feeling of weakness or becoming lightheaded.

The single most important factor that determines survival of a heart attack is time. It is imperative that anyone experiencing a heart attack get immediate medical help. Call 911 or emergency medical services and do not try to get to the hospital on your own.

EMS has life-saving drugs and pain medication on-hand and also has a defibrillator in case your heart stops and needs to be shocked. Pain medications and oxygen are not just comfort measures but can save your life. The EMS has communications with the emergency room, allowing the emergency room to get ready for your arrival.

All heart attacks are now treated in the hospital with aspirin immediately. Aspirin helps to thin the blood, which helps the circulation and minimizes damage from heart attacks. If your arrival at the hospital will be delayed, doctors recommend chewing one full-strength aspirin or two baby aspirins. You must tell the doctors upon arrival at the hospital if you have taken aspirin and how much you have taken so they can adjust any medications.

Heart attacks are scary, but do not have to be fatal. Know your risk factors and adjust your lifestyle if necessary. Many people avoid medical help because they refuse to believe it is happening to them or they just don't want to cause a fuss. A hospital visit for a false alarm will be much easier on your loved

ones than the alternative.

Health Talk: Your most important New Year's resolution

By EUGENIA ROBERTSON, For the Maryland Gazette | Posted: Wednesday, January 16, 2013 2:00 am

Happy 2013! It is again time to make resolutions for the coming year. Some resolve ourselves to grow financially. Others strive to be better parents, spouses or friends. However the most important thing you can do for yourself and your family is to take care of yourself especially as you age.

The following are some tips to help keep you healthy throughout the years.

Exercise regularly, at least three times a week and preferably once a day. For most people, walking is the simplest and safest form of exercise. One study reports that walking 30 minutes a day adds 1.3 years to a person's life. More strenuous types of exercise done in moderation and with proper pre- and post-exercise stretching is recommended. In order to increase your fitness level, exercise should increase your heart rate. Exercises involving balance and light weightlifting can help prevent falls.

A balanced diet is vital to good health. Foods high in fiber, fruits and vegetables, raw nuts and whole grains are essential to a well balanced diet. Elimination of "bad foods" is difficult, but a diet that limits fat is a must. Salt also should be limited, even for people who aren't hypertensive. Refined sugar consumption should be limited for people with and without diabetes.

Drink several glasses of water per day and try to avoid carbonated drinks. The water you drink doesn't have to be bottled; tap water is just as good or better and is required for all bodily functions. To make sure that you are well hydrated, check the color of your urine. If it is dark gold, drink more.

Kick or reduce bad habits. Quit smoking; avoid alcohol and consuming excessive amounts of caffeinated drinks or other stimulants; and improper use of prescription, non-prescription and illegal drugs.

Make preventive health a priority this year. Talk to your doctor about screening tests that are recommended for your age group to detect early cancer and prevent cardiovascular disease. Ask whether vitamins or supplements are appropriate for you, such as calcium and vitamin D to prevent osteoporosis.

Reduce stress, even though it may be easier to say than to do. Stress is defined generally as "things out of your control" that cause discomfort or threaten one's sense of security. Whether it is the bad economy or a family situation, it is important to find healthy ways of dealing with stress. Stress contributes to many severe health problems, so it is important to deal with stress earlier, rather than later.

Sleep and rest are essential to wellness. Each person needs slightly different amounts. The average amount of sleep required is seven hours. If you are tired, get some rest. Exhaustion can lead to many illnesses.

Follow all regimens for disease management. Let's face it, as we age we develop health problems. People with heart disease, arthritis, cancer, depression, diabetes, hypertension and other common problems should receive care from a physician. Follow the plan that you and your physician have discussed.

See your physician at least once a year for a thorough evaluation. The annual physical is necessary for you and your physician to evaluate your overall health, go over all medications, and prescribe any changes or tests that need to be performed under the preventive maintenance program that you and your physician have agreed upon.

Pay attention to your body and get medical attention if you have any health concerns. Schedule an appointment with your doctor to discuss any persistent physical or mental health issues. Don't hesitate to contact your doctor or schedule a follow-up visit if your symptoms don't improve as anticipated. Ultimately, your health is your responsibility so make it a priority in the new year.

Cardiovascular Update: More Tailored Treatments

Published: JANUARY 3, 2013

By: Linda Harder

Maryland Physician interviewed three cardiovascular specialists for the latest updates in antiplatelet medications, deep vein thrombosis and heart disease in women. In each case, patients benefit from medicine's better understanding of individual responses to therapies.

Clopidogrel is Ineffective for 30% of Patients

In the process of helping to develop ticagrelor (*Brilinta*, Astra Zeneca), an oral antiplatelet medication that rivals clopidogrel bisulfate (*Plavix*, Sanofi, Bristol Myers Squibb), **Paul A. Gurbel, M.D.**, director of the Sinai Center for Thrombosis Research at Sinai Hospital of Baltimore has learned just how long it can take to go from bench research to FDA approval of a new antiplatelet drug.

He began studying mechanisms of thrombosis while a cardiology fellow at Duke University in 1987. In the late 1990's, his lab at Sinai Hospital discovered the pharmacodynamic limitations of clopidogrel when studying its effects on patients undergoing stenting. This groundbreaking research provided a major rationale for the development of antiplatelet agents with a more rapid, predictable and potent pharmacodynamic effect. The seminal observations of response variability and resistance to clopidogrel, the most widely used antiplatelet agent of its type worldwide, initiated the field of personalized antiplatelet therapy.

Although approved one year earlier in 28 countries, it took until July 2011 for the FDA to finally approve ticagrelor. Dr. Gurbel and his research team led the design and conduction of international pharmacodynamic and pharmacogenetic studies of ticagrelor that started in 2006. The data gathered from these studies demonstrated the superiority of ticagrelor's antiplatelet effect as compared to clopidogrel. This key laboratory information was submitted to the FDA and other regulatory agencies around the world and was influential in the decision to approve ticagrelor for the treatment of patients with acute coronary syndromes. These data are now in the labeling of *Brilinta*.

Clopidogrel's Limitations

Clopidogrel is an inactive pro-drug that requires hepatic bioactivation via various enzymes, including cytochrome P450 (CYP)2C19. Therapy with clopidogrel reduces the likelihood of coronary artery thrombosis by specifically inhibiting the platelet ADP receptor, $P2Y_{12}$.

However, a large proportion of the population (~25% of those of European ancestry, ~30% of African ancestry and ~50% of East Asian ancestry) has a variant of the *CYP2C19* gene, termed a "loss-of-function allele" that results in non-functional gene product. These patients may therefore less effectively metabolize clopidogrel. Dr. Gurbel and his team first reported the relation of genotype to clopidogrel's pharmacodynamic effect in a PCI (percutaneous coronary intervention) population. The FDA has now written a boxed warning regarding the influence of genotype on clopidogrel metabolism.

Dr. Gurbel recommends that, in high-risk patients undergoing stenting who are treated with clopidogrel, strong consideration be given to assuring that an adequate antiplatelet effect is present by testing platelet function. He says, "We call this, 'personalizing therapy.' If the effect is not desirable, then the patient can be switched to a new, more expensive and more pharmacodynamically potent and predictable agent such as ticagrelor or prasugrel."

These recommendations for personalizing antiplatelet therapy are now addressed in American and European cardiology treatment guidelines. "Given that clopidogrel is one of the most commonly prescribed medications for patients with vascular disease, and that it became a generic drug in 2012, it is important for clinicians to identify those who should receive the more costly alternative treatments," Dr. Gurbel remarks.

Finally, Dr. Gurbel emphasizes that, "Clopidogrel is pharmacodynamically effective in about two thirds of patients undergoing PCI; these patients do not have high platelet reactivity (HPR). Ischemic risk is much greater in patients with HPR. Therefore, selectively treating two thirds of patients with generic clopidogrel may

provide significant cost savings. Unselected therapy with the new $P2Y_{12}$ receptor blockers is associated with increased bleeding. We believe that clinicians should strive to find the antiplatelet therapy that achieves the optimal level of platelet inhibition for the patient, regardless of cost. If generic clopidogrel is indeed pharmacodynamically effective in the patient, offering them this less expensive option appears to be a win/win scenario."

The Future

Dr. Gurbel and his team are involved in many more studies. They are planning a large multicenter international investigation of personalized antiplatelet therapy in high-risk patients undergoing coronary artery stenting. They are currently investigating the antiplatelet effects of HDL by intravenously administering purified HDL to patients with coronary artery disease. Another investigation involves the first administration in humans of a novel intravenous antiplatelet agent that blocks the ability of thrombin to activate platelets.

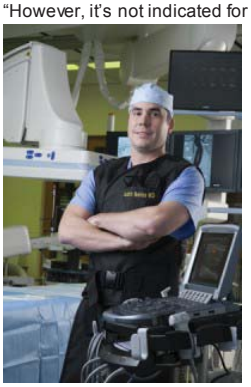
Studying the effectiveness of ticagrelor in other patient populations is also underway. In July 2012, AstraZeneca announced that it plans to conduct EUCLID, a new global clinical trial of ticagrelor that will compare its efficacy to that of clopidogrel in reducing cardiovascular deaths, myocardial infarction or ischemic strokes in patients with peripheral arterial disease.

New Treatment for Acute Iliofemoral DVT

Deep vein thrombosis (DVT) affects 350,000 to 600,000 Americans (half of them women) each year, and these conditions may contribute to 100,000 deaths every year. Even when physicians can restore blood flow around the lower extremity clot, about half of patients show residual evidence of thrombus or stenosis one year later and the underlying valves are typically compromised. Patients with significant DVT are likely to experience post-thrombotic syndrome, a disorder characterized by lower extremity swelling, discomfort, eczema, pruritis, ulceration and cellulitis, venous stasis, venous reflux, and chronic edema.

Justin K. Nelms, M.D., a vascular surgeon at Baltimore Washington Medical Center (BWMC), has introduced percutaneous mechanical thrombectomy and thrombolysis, the newest treatment for acute iliofemoral DVT, to the hospital.

"This procedure significantly decreases the morbidity of post thrombolitic syndrome," states Dr. Nelms. "However, it's not indicated for femoral or popliteal DVT, only cases involving the iliofemoral veins." Its greatest benefit is in situations where extensive thrombus burden is present. These tend to be DVTs that involve the iliac and femoral veins.



A committee of vascular experts, under the direction of the Society for Vascular Surgery and the American Venous Forum, developed evidence-based practice guidelines for early thrombus removal strategies. They recommend pharmaco-mechanical strategies over catheter-directed pharmacologic thrombolysis alone in a first episode of iliofemoral DVT of less than 14 days in duration, especially in patients with limb-threatening ischemia due to iliofemoral venous outflow obstruction.

Percutaneous Mechanical Thrombectomy Description

Dr. Nelms describes the procedure, "We introduce a catheter through the groin to the thrombus. A thrombolytic agent (diluted tissue plasminogen activator) is infused directly into the thrombus, softening it to facilitate its removal. We then use high-speed water jets in the catheter to create a vacuum that sucks in the thrombus, breaking it into minute fragments that are evacuated back through the catheter."

He continues, "The procedure is performed in the endovascular suite and most patients have an overnight hospital stay. Intravenous ultrasound can be used to display the venous interior and cross sections in real time. With this technology, we can assess the adequacy of our intervention as well as identify any areas of narrowing. If the patient is found to have an underlying stenosis, angioplasty and possibly a stent may also be used."

Percutaneous mechanical thrombectomy has a number of benefits, including:

- Rapid removal of the thrombus with restoration of blood flow
- Faster symptom resolution
- Shorter procedure time, shorter hospital stays and subsequent cost savings

In a small fraction of patients, the procedure may cause bleeding or result in hemolysis that damages the kidneys.

Dr. Nelms notes, "Patients also receive thrombolytic therapy to facilitate removal of the thrombus and preserve venous valve function. The main utility of percutaneous mechanical thrombectomy and thrombolysis lies in its ability to decrease the incidence and severity of post-thrombotic syndrome."

Refer Patients with Iliofemoral DVT Early

"All patients with acute, symptomatic iliofemoral DVT who present to the ER should be referred to a vascular surgeon for evaluation," Dr. Nelms advises. "The fresher the clot, the more likely the thrombolysis is to be effective. Within one week of symptom onset is ideal, though I advocate the procedure up to four weeks post event. A venous duplex study remains the gold standard for diagnosis.

"Many practitioners may not realize that you can or should do thrombolysis for this type of DVT," concludes Dr. Nelms. "Percutaneous mechanical thrombectomy and thrombolysis has gained wide acceptance in academic centers and increasingly is available in community hospitals."

Top Topics

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Women's Heart Disease: Shifting to Prevention

It's still apparently a challenge for women and even some physicians to grasp that cardiovascular (CV) disease, not cancer, is the number one killer of women. "Women should start thinking about CV disease in their 30s or 40s, when they can still prevent it," says **Shannon J. Winakur, M.D.**, cardiologist and medical director of the Women's Heart Center at Saint Agnes Hospital.

"Age and family history are the only risk factors you can't change," she claims. "Yet, many women are not taking time to care for themselves or go to the doctor until they're sick. Further, many practitioners still don't take a family history of heart disease as seriously for women as for men."

Dr. Winakur's advice is underscored by data pooled from five studies that were presented at the American Heart Association Scientific Sessions in November 2012, indicating that healthy habits in middle age can extend longevity by as much as a decade.

Her comments are also supported by the preliminary results of a new European study presented as an abstract at the 2012 Acute Cardiac Care Congress meeting in Turkey[1]. The study found that, compared with men, women with ST-elevation myocardial infarction (MI) had a longer delay in calling for medical assistance and receiving reperfusion once at the hospital; perhaps as a result, they were more than twice as likely to die of MI (9% vs. 4.4% of men).

Women: Know Your Numbers

Dr. Winakur stresses that, "Women need to make sure they know their numbers. At our center, we offer a 60-minute screening with our certified cardiovascular nurse for $60. Women receive a blood pressure screening, BMI, an EKG and blood work that includes a lipid profile and hemoglobin A1c. These results, combined with responses to a questionnaire, create a personalized risk factor profile. Depending on the results, we then educate each woman about her cardiac risk factors and make personalized diet, exercise and smoking cessation recommendations as appropriate. We also make referrals for a full cardiology consultation if needed.

"This service supplements what a primary care physician can do," she continues. "Being a primary care physician these days is so difficult – you have to do everything in 10 minutes. We're here to help them."

It's especially critical that women stop smoking as early as possible. A recent prospective study of more than one million women in the UK, published online in *The Lancet*, showed that women who smoke triple their risk of early death and that smoking cessation in middle age can largely reverse that risk.[2]

Dr. Winakur states, "Other CV risk factors include autoimmune diseases, radiation therapy and other cancer treatments. Survivors of childhood cancers need to be monitored throughout their lives because they're at higher cardiovascular risk. Physical and sexual abuse survivors are also at greater risk of heart disease.

"I would love to see more women for cardiac *prevention*, before treatment of an event," she adds. "I want to empower women to take control. Patients are sometimes sheepish – they worry that it might be a false alarm, but it's never a waste of time to get checked out."

The issue of different symptom presentation continues to stymie prompt attention to possible cardiac disease in women. According to Dr. Winakur, "Fatigue and shortness of breath are common symptoms. Of course, the woman's physician needs to rule out thyroid disease, anemia and other causes of fatigue."

Staying abreast of current research requires vigilance. Dr. Winakur notes that, "A new look at the EPIC trial suggests that dietary calcium is better than taking calcium supplements, which correlated with a doubling of MI risk in a study of 24,000 German women. Newer hormone replacement data also suggests that taking lower doses of HRT when women are in their 50s, closer to the onset of menopause, does not increase the risk of death and MI, and in some cases may lower the risk. This reinforces the importance of considering individual patient history when prescribing treatment."

"My hope is that we can be as successful at increasing awareness of heart disease in women as Komen has been in getting attention to breast cancer," she concludes.

***Paul A. Gurbel, M.D.**, director of the Sinai Center for Thrombosis Research at Sinai Hospital of Baltimore*

***Justin K. Nelms, M.D.**, vascular surgeon at Baltimore Washington Medical Center*

***Shannon J. Winakur, M.D.**, cardiologist and medical director of the Women's Heart Center at Saint Agnes Hospital*

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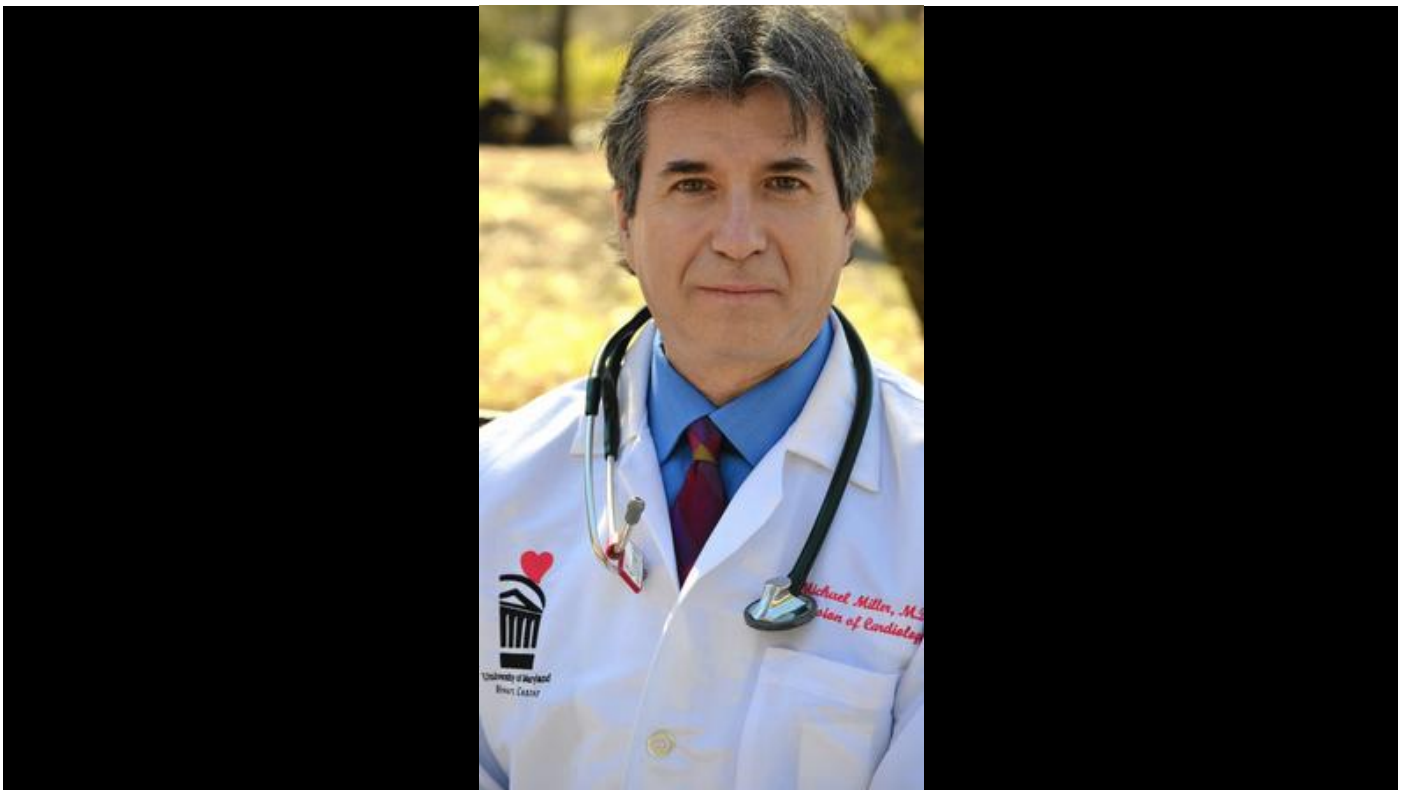
[1] Guillaume Leurent, MD, and colleagues, Centre Hospitalier Universitaire, Rennes, France

[2] The Lancet, Early Online Publication, 27 October 2012, doi:10.1016/S0140-6736(12)61720-6

THE BALTIMORE SUN
Picture of Health
Your daily dose of information on better living

Lower stress to protect your heart, expert says



Dr. Michael Miller, professor of cardiovascular medicine, epidemiology and public health in the University of Maryland School of Medicine, is the author of "Heal Your Heart: The Positive Emotions Prescription to Prevent and Reverse Heart Disease." (Courtesy of the University of Maryland, Baltimore Sun)

By Meredith Cohn,
The Baltimore Sun

DECEMBER 3, 2014, 3:07 PM

Heart disease is a leading killer of Americans, and there are many factors that put people at risk. But among the top problems is something hard to measure – stress – according to Dr. Michael Miller, professor of cardiovascular medicine, epidemiology and public health in the University of Maryland School of Medicine and author of "Heal Your Heart: The Positive Emotions Prescription to Prevent and Reverse Heart Disease." He says there are actions everyone can take to lower their stress, and their risk of a heart attack.

What are the major risk factors for heart disease, and where do you rank stress?

Nine risk factors account for well over 90 percent of heart attacks. In addition to the four major factors —

cigarette smoking, diabetes, hypertension and high cholesterol — other risk factors include being sedentary, having excess abdominal (belly) fat, not consuming vegetables and fruits daily, and consuming alcohol. Last but certainly not least is stress, which represents up to 25 percent of heart disease risk. In fact, I would place stress at the top of the list of cardiac risk factors for two important reasons. First, unlike cholesterol, blood pressure and glucose, it can't be directly measured. This makes it impossible for health care providers to appreciate the amount of stress a patient may be experiencing on a day-to-day basis. Second and most importantly is that stress is the only risk factor that can directly impact all of the other eight risk factors. Think about it. When you are under a great deal of stress, blood pressure tends to increase, you are more likely to light up if you're a smoker, others will stop exercising and replacing their veggies with "comfort foods" that raise blood lipids, etc.

Everyone has stress, but why does it affect some people's heart health more than others?

Stress can be good if it is over a short period and can serve as a means to an end. For example, being mildly anxious prior to an exam is favorable due to the release of chemicals such as cortisol that increases focus and concentration. And following the exam, depending upon how well you feel you performed, there might even be a release of endorphins that provide a protective effect on our blood vessels. The problem arises when we are faced with chronic stress or stress that persists for a long period of time. If not managed effectively, stress chemicals that are continuously released over time can damage our blood vessels and ultimately our heart.

How physically is stress hurting people's hearts?

Chronic stress not only increases the risk of a heart attack but has now been shown to raise the risk of stroke. Overall, long-standing stress that is not effectively managed damages our hearts and places a serious toll on our overall health.

What are some of the best methods of controlling stress and promoting emotional well-being?

In my new book, I emphasize the mind-heart connection, the emerging field of behavioral cardiology. Three main categories are addressed to best control stress and optimize psychological well-being and emotional health. They include nutrition, exercise and positive emotions. It turns out that there are a variety of foods that are not only nutritious but also nourish our spirits by releasing mood-elevating compounds like dopamine and serotonin. I extensively researched the top mood-boosting foods fulfilling these requirements based on numerous scientific studies. Some foods that you may be familiar with include dark chocolate, but others such as artichokes may surprise you. Check out a listing of five examples on the Rodale website (rodalenews.com/best-foods-heart). Exercise is another important feature of my "Positive Emotions Prescription," but the good news is that you do not need to run marathons to attain benefit. I emphasize to my patients that they should try and remain active daily. This means enhancing our non-exercise activities throughout the day by not sitting still for periods exceeding 15 or 20 minutes at a time. Improving NEAT (non-exercise activity thermogenesis) can be a major mood enhancer. The third category may be the most surprising because it turns out that you can also improve your heart health through simple enjoyable exercises that directly impact positive emotions. Our research team studied the effect of laughter and joyful music on blood vessel function. Laughing and listening to joyful music release endorphins that leads to blood vessel dilation. This impacts and improves the flexibility of your arteries and can reduce blood pressure. Practiced daily, positive emotions could be

the anti-aging secret for our blood vessels.

What should you do if you fear stress is hurting your health?

We provide specific actions as part of the "Positive Emotions Prescription" to help anyone working through stressful situations. However, if stress becomes so severe that it affects day-to-day living, then it should be brought to the attention of your physician or health care professional.

meredith.cohn@baltsun.com

Nov. 21, 2014 8:59 am

UM Ventures' first equity investment could change open-heart surgery

The Baltimore-based **University of Maryland School of Medicine (http://medschool.umaryland.edu/)** has plenty of research and development resources invested in biotech. Now, the institution is putting up venture funding too.

UM Ventures (http://www.umventures.org/), an initiative that aims to help commercialize university research, announced its first equity investment Thursday into **Harpoon Medical, Inc. (http://www.harpoonmedical.com/)** The $100,000 investment will help the Stevensville-based company close a $3.6 million Series A financing round.

Harpoon Medical recently secured a patent for a device that could make open-heart surgery to repair a mitral valve shorter. Known as minimally invasive beating-heart mitral valve repair technology, the device makes a small incision between the ribs to repair the crucial valve, which is located on the middle portion of the left side of the heart, and helps control the flow of blood.

Surgery to repair the valve often takes 3-6 hours, and requires doctors to temporarily stop the heart. (A heart-lung machine takes over the duties of pumping blood while doctors mend the heart.)

Harpoon's device is designed to allow the repair of the valve to be completed while the heart is still beating using image-guided technology. For patients, time under the knife could be cut to as little as 60 minutes, the company says.

By Stephen Babcock / contributor

The device was developed in the Division of Cardiac Surgery at University of Maryland School of Medicine, then licensed to Harpoon. The company was started in 2013 specifically to commercialize the technology that is being developed at the University of Maryland School of Medicine. Harpoon has also received grants from **BioMaryland** and **TEDCO**.

"We have been working with UM Ventures since Harpoon was formed and are honored that they chose to make their inaugural investment in our company," said Harpoon Medical CEO **Bill Niland**. "In just over a year we ha[illegible] a company, licensed innovative technology from UMB, secured the first of what will hopefully be many patents, and raised the funds necessary to demonstrate the efficacy of the device in the clinic."

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Stephen Babcock is a contributor to Technical.ly Baltimore. A graduate of Northeastern University, he moved to Baltimore following a stint in New Orleans, where he served as managing editor of online news and culture publication NOLA Defender and wrote for NOLA.com | The Times-Picayune. He previously wrote for the Rio Grande Sun of Northern New Mexico.

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Skin Cells Can Be Engineered Into Pulmonary Valves for Pediatric Patients

New valves may grow with patients and may have lower rejection rates

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Ann Thorac Surg 2014;98:947–54

Newswise — Chicago – Researchers have found a way to take a pediatric patient's skin cells, reprogram the skin cells to function as heart valvular cells, and then use the cells as part of a tissue-engineered pulmonary valve. A proof of concept study in the September 2014 issue of *The Annals of Thoracic Surgery* provides more detail on this scientific development.

"Current valve replacements cannot grow with patients as they age, but the use of a patient-specific pulmonary valve would introduce a 'living' valvular construct that should grow with the patient. Our study is particularly important for pediatric patients who often require repeated operations for pulmonary valve replacements," said lead author David L. Simpson, PhD, from the University of Maryland School of Medicine in Baltimore.

Dr. Simpson, senior co-author Sunjay Kaushal, MD, PhD, and colleagues designed a process to transform skin cells from a simple biopsy into cells that become an important ingredient in a tissue-engineered pulmonary valve.

The pulmonary valve is a crescent-shaped valve that lies between the heart's right ventricle and pulmonary artery. It is responsible for moving blood from the heart into the lungs.

While the study was conducted in vitro (outside of the body), the next step will be implanting the new valves into patients to test their durability and longevity.

"We created a pulmonary valve that is unique to the individual patient and contains living cells from that patient. That valve is less likely to be destroyed by the patient's immune system, thus improving the outcome and hopefully increasing the quality of life for our patient," said Dr. Kaushal. "In the future, it may be possible to generate this pulmonary valve by using a blood sample instead of a skin biopsy."

Dr. Simpson added that he hopes the study will encourage additional research in tissue engineering and entice more people to enter the field, "Hopefully, growing interest and research in this field will translate more quickly into clinical application."

It is estimated that nearly 800 patients per year could potentially benefit from bioengineered patient-specific pulmonary valves, according to data from the STS Congenital Heart Surgery Database. The Database, which collects information from more than 95% of hospitals in the US and Canada that perform pediatric and congenital heart surgery, shows that approximately 3,200 patients underwent pulmonary valve replacement during a 4-year period from January 2010 to December 2013.

The Simpson study was a collaboration between the University of Maryland School of Medicine in Baltimore and the Northwestern University Feinberg School of Medicine in Chicago. Additional co-authors include Brody Wehman, MD, Yekaterina Galat, Sudhish Sharma, PhD, Rachana Mishra, PhD, and Vasiliy Galat, PhD (senior co-author).

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For a copy of the study contact Cassie McNulty at 312-202-5865 or cmcnulty@sts.org.

Founded in 1964, The Society of Thoracic Surgeons is a not-for-profit organization representing more than 6,800 cardiothoracic surgeons, researchers, and allied health care professionals worldwide who are dedicated to ensuring the best possible outcomes for surgeries of the heart, lung, and esophagus, as well as other surgical procedures within the chest. The Society's mission is to enhance the ability of cardiothoracic surgeons to provide the highest quality patient care through education, research, and advocacy.

The Annals of Thoracic Surgery is the official journal of STS and the Southern Thoracic Surgical Association.

HEALTH

In Single Gene, a Path to Fight Heart Attacks

By GINA KOLATA JUNE 18, 2014

Two major studies by leading research groups published on Wednesday independently identified mutations in a single gene that protect against heart attacks by keeping levels of triglycerides — a kind of fat in the blood — very low for a lifetime.

The findings are expected to lead to a push to develop drugs that mimic the effect of the mutations, potentially offering the first new class of drugs to combat heart disease in decades, experts say. Statins, which reduce LDL cholesterol, another cause of heart disease, became blockbusters in the late 1980s. Since then, there have been no major new drugs approved for lowering heart disease risk. But experts caution that drug development takes years and that there are no guarantees that new treatments will work as hoped.

Heart attacks are the leading killer in the United States, and about 720,000 Americans a year have them. Although statins are effective in reducing heart attack risk, many users still have high levels of triglycerides and go on to have heart attacks. So the results of the new studies are good news, said Dr. Daniel J. Rader, the director of the Preventive Cardiovascular Medicine and Lipid Clinic at the University of Pennsylvania, who was not involved in the research.

“We’ve been looking for something beyond statins,” Dr. Rader said. “After we have put people on high-dose statins, what else can we do? Essentially nothing.”

Experts differ in their estimates of how many Americans might be

candidates for a triglyceride-lowering drug. If the eligible group included all adults with triglyceride levels of 200 or more — the normal level is 150 or less — that would mean about 20 percent of adult Americans. If it were just those with the highest levels, above 500, then 2 percent to 3 percent of adults would qualify.

The discovery announced on Wednesday was hinted at in 2008 in a much smaller study of the Amish conducted by researchers from the University of Maryland's medical school. One in 20 Amish people has a mutation that destroys a gene, involved in triglyceride metabolism, compared with one in 150 Americans generally. The scientists were intrigued but did not have enough data to nail down the gene's role in heart attacks.

Sam, a 55-year-old Amish farmer who declined to have his last name published, saying he was uncomfortable about being conspicuous, has such a beneficial mutation. He recalls little heart disease in his family. On a cold day last fall, as an icy rain fell outside, he sat at a small wooden table in his daughter's house and laid out a sheet of paper that showed he had a triglyceride level of 45. The average in the United States is 147.

"It's nice that something came out that is positive," he said.

Triglycerides have long puzzled researchers, although they are routinely measured along with cholesterol in blood tests and are often high in people with heart disease. Many experts were unconvinced they caused heart attacks. Clinical trials of drugs that lowered triglycerides by a small amount added to doubts about their role: The drugs had no effect on heart attack rates.

As for triglycerides themselves, "do they just keep bad company or are they independently doing something to risk?" asked Dr. Robert Hegele, a heart disease expert at Western University in London, Ontario, who was not involved in the new studies.

Those studies, published in The New England Journal of Medicine and funded by the National Institutes of Health and the European Union, provide "a very, very strong type of evidence," Dr. Hegele said, that triglycerides are in fact a cause of heart attacks.

The work began several years ago when researchers at the Broad Institute of Harvard and M.I.T. started searching through an enormous data set — drawn from 70 studies involving 200,000 people — to see if there were tiny genetic changes near or in genes that seemed to lead to very high or very low amounts of triglycerides in the blood. They also asked whether people who happened to have a higher or lower triglyceride level also had a higher or lower incidence of heart attacks.

The researchers discovered that people with a genetic predisposition to higher triglyceride levels had more heart attacks and those with genetically lower triglyceride levels had fewer.

Their study, published last year in Nature Genetics, did not isolate individual genes, though. It just pointed to signposts on the long stretch of 30 million DNA letters that were near the genes. So the investigators began a hunt for the genes themselves.

To that end, they mapped the genes of 3,734 Americans, about 2,500 of whom were white and the balance African-American. The researchers reported the results of that effort on Wednesday.

One gene, APOC3, stood out. The scientists found four mutations that destroyed the function of this gene. The Amish study had discovered that people with such a mutation could drink a big, rich milkshake, loaded with fat, and their triglyceride levels did not budge. For everyone else, they spiked. The new studies show what that means for people's health.

"Those who carry the gene mutations have a 40 percent reduction in triglyceride levels and a 40 percent lower risk of heart disease," said Dr. Sekar Kathiresan of Massachusetts General Hospital and the Broad Institute. He is the lead researcher on the gene project.

Now, he added, "there is a route to heart attacks that is independent of LDL," the form of cholesterol associated with heart disease.

The other study, led by Dr. Anne Tybjaerg-Hansen of Copenhagen University Hospital, used data from 75,725 subjects to learn whether low triglyceride levels were linked to a reduced heart attack risk. They were. The researchers also asked whether people who had mutations destroying the

APOC3 gene had fewer heart attacks. They did. Those with such mutations had a 44 percent reduction in triglycerides and a 36 percent lower heart attack risk.

The Danish data, Dr. Kathiresan said, “are eerily consistent with our data.”

“It is incredible how reproducible the finding is,” he added. Yet the two groups worked independently, with The New England Journal of Medicine coordinating publication of their studies.

For the University of Maryland scientists who conducted the 2008 Amish study, the new finding shows that their hypothesis about the gene was correct. Those with the mutation had less calcification of their arteries, an indication that they had less heart disease. But the Maryland group was not able to say if those people also had fewer deaths from heart disease. Toni Pollin, the lead researcher for the study, explained: “To really find out if it is related to heart disease, we’d need to follow people over time. And the Amish use hospitals a lot less than other people, so it is hard to document the cause of death.”

A small California company, Isis, also hit upon the gene when it was looking for ways to make triglyceride levels plunge in the small group of people with disorders leading to triglyceride levels so high they can be fatal. They made a drug that counteracts the gene and began testing it. It slashed triglyceride levels by 71 percent.

“It is the most important drug in our pipeline,” said Dr. Stanley Crooke, the chief executive of Isis. “Trust me, these data are really exciting.”

The company has no plans to test whether its drug prevents heart attacks in the general population. That sort of huge study, lasting years, would require the resources of a much larger company.

But heart researchers see the Isis drug as, at least, proof that it is possible to come up with drugs in what could be a new class of pharmaceuticals to protect against heart disease.

A version of this article appears in print on June 19, 2014, on page A1 of the New York edition with the headline: In Single Gene, a Path to Fight Heart Attacks.

Clinical Research: Cardiac Imaging | May 2014

Safety of Computed Tomography in Patients With Cardiac Rhythm Management Devices

Assessment of the U.S. Food and Drug Administration Advisory in Clinical Practice

Ayman A. Hussein, MD; Ameer Abutaleb, MS; Jean Jeudy, MD; Timothy Phelan, MD; Ronak Patel, MD; Melsjan Shkullaku, MD; Faisal Siddiqi, MD; Vincent See, MD; Anastasios Saliaris, MD; Stephen R. Shorofsky, MD, PhD; Timm Dickfeld, MD, PhD

J Am Coll Cardiol. 2014;63(17):1769-1775. doi:10.1016/j.jacc.2013.12.040

Abstract

Objectives To assess the safety of computed tomography (CT) imaging in patients with cardiac rhythm management (CRM) devices, which was subject to an advisory from the U.S. Food and Drug Administration (FDA) in 2008.

Background The FDA warned about potential interference of CT imaging with CRM devices and made recommendations for clinical practice despite only limited evidence.

Methods All 516 CT scans that involved direct radiation exposure of CRM devices (332 defibrillators, 184 pacemakers) at 2 large-volume centers between July 2000 and May 2010 were included. The primary outcome was a composite endpoint of death, bradycardia or tachycardia requiring termination of the scan or an immediate intervention, unplanned hospital admission, reprogramming of the device, inappropriate defibrillator shocks, or device replacement/revision thought to be due to CT imaging. Significant changes in device parameters were sought as a secondary outcome (control group 4:1 ratio).

Results The main finding was that none of the CTs were associated with the primary outcome. With serial device interrogations, there were no differences in changes in battery voltage or lead parameters between devices exposed to radiation and their controls. Potentially significant changes in device parameters were observed in a small group of devices (both the CT group and control group), but no definitive link to CT was confirmed, and there were no associated clinical consequences.

Conclusions The findings suggest that the presence of CRM devices should not delay or result in cancellation of clinically indicated CT imaging procedures, and provide evidence that would be helpful when the FDA advisory is re-evaluated.

Teen gymnast competing again after heart surgery

By Dara McBride dmcbride@cecilwhig.com | Posted: Wednesday, April 16, 2014 1:13 am

Jordyn Ray

Jordyn Ray, 15, of Port Deposit, is competing again in gymnastics after undergoing heart surgery. She had three congenital defects in her heart that were repaired in 2012.

PORT DEPOSIT — At age 13, there was something more precarious for gymnast Jordyn Ray than flips over a balance beam.

Her heart felt like it was beating out of her chest.

Ray had three congenital defects in her heart, including a hole in the wall between the top two chambers. In April 2012, she underwent a six-hour, open-heart surgery to repair the abnormalities.

Ray, now a sophomore at Perryville High School, made a full recovery. In March, Ray competed in the Level 8 Maryland state championships and went on to the regional competition.

"I had no idea I was going to be able to go back," said Ray, who began practicing gymnastics at age 4.

Before suffering what many thought was just a panic attack in eighth grade, Ray was unaware there was something wrong with her heart. Even when she wasn't feeling "100 percent," she said she still wanted to go to practice.

"Through all that, I was still doing gymnastics and competing," said Ray, who practices at ACPR Gymnastics in Churchville, about a 30 minute drive. She practices almost every day and leaves directly after school.

Her mother, Denise Ray, remembers picking up her daughter from school after the school nurse called to say her daughter was complaining of chest pain. When Denise arrived her daughter was "pale as a ghost" and had to be taken to the car in a wheelchair, she recalled.

"It was a very traumatic experience as a parent to see your child go through it," Denise said. After being taken out of school early, the family took Ray to a specialist for tests.

Once Denise knew her daughter's diagnosis, she said she began to connect the dots. Although she was carried full term, Ray was born a little over six pounds. She ate healthy and exercised, but always came in under height and weight.

"She was the baby who was always crying in pain," Denise said.

At the University of Maryland, Dr. Sunjay Kaushal said he and his colleagues are well-versed when it comes to simple and complex congenital heart disease. But Ray's diagnosis made for a unique case because of her young age.

Kaushal, who is director of pediatric cardiac surgery and also works with adults with congenital heart disease, served as Ray's surgeon at the University of Maryland Children's Hospital.

Ray's diagnosis is more commonly seen in adults, Kaushal said. A patient may suffer from a heart defect his or her entire life, but the heart is able to compensate. Once the person reaches adulthood, however, the heart becomes tired and can't pump as efficiently, Kaushal said.

Ray felt the effects of her disorder because she was unusually active and competing at a high level in gymnastics. This put more stress on her heart, said Kaushal.

Kaushal said something to learn from Ray's story is to see a physician or pediatrician when a patient presents symptoms of a congenital heart defect. For Ray, extreme fatigue and rapid heart rate sent her first to the nurse's office and later to a specialist.

Ray's parents credit Kaushal for saving their daughter's life. A parent himself, Kaushal tries to treat all patients as family and said he's happy to hear Ray is doing well.

"It brings great satisfaction to me that she's back as a gymnast. I hear she's doing quite well and that brings me joy," he said.

Ray was in the hospital for five days and then was directed to stop gymnastics for a year. Six months in, she looked overall healthy and was allowed to resume gymnastics early.

Ray said she hopes her future includes rising to the highest competition level, 10, and securing a gymnastic scholarship for college. She aspires to work in pediatrics.

"I want to help children with their hearts," Ray said. "I want them to know my story."

Surgeon brings less-invasive technique to implanting heart pump to UM

Dr. Si Pham and patient Walter Amprey, chat in an exam room at the University of Maryland Medical Center. "I recognize I'm fortunate to be alive," Amprey said. “God has taken care of me so far -- God and Dr. Pham." (Doug Kapustin, Baltimore Sun)

By Jonathan Pitts, The Baltimore Sun

FEBRUARY 21, 2014, 6:33 PM

Walter G. Amprey was driving his wife, Andrea, home from a restaurant one night last December when he turned onto an on-ramp for the Baltimore Beltway.

A sudden dizziness overcame him. He blacked out. The family SUV ran off the road and rolled into a tree.

The pair survived, but Amprey had suffered severe heart failure. It would take a team of surgeons at the University of Maryland Medical Center — and a new operating-room technique — to give him his best chance for a full and rapid recovery.

A week before Christmas, Amprey, 69, became the first Marylander to receive a life-extending cardiac pump not by way of breastbone-splitting open-heart surgery, but through a pair of tiny slits in the torso.

The technique was pioneered in Germany just two years ago and brought to the United States last year.

"Open-heart procedures [are] traumatic and are best done [only] when necessary," said Dr. Si Pham, director of the heart and lung transplant center at the hospital and the man who brought the procedure to

Maryland. "They bring high risk of infection. They cause scarring in the heart that must later be surgically removed, and they increase recovery time. Minimally invasive surgery is a safer first step."

As recently as 2003, Amprey, a one-time superintendent of Baltimore City schools, might have seemed an unlikely candidate for any form of radical surgery.

At 6 feet 4 inches tall and more than 230 pounds, he had starred as a football lineman and discus hurler in high school. He was a regular at the gym, had an appetite for work that matched his doctoral pedigree, and possessed a congenitally optimistic outlook.

"I was basically accustomed to being able to do whatever I wanted," Amprey said during a recent visit with Pham at the medical center. "Maybe I didn't realize how lucky that was."

He had no idea he also suffered from cardiomyopathy, a deterioration of the muscles around the heart. One day a decade ago, to his shock, it caused heart failure.

It was hard, Amprey said, to accept that he had such a serious health problem, but he followed the orders of his cardiologists at the University of Maryland Medical Center. He cut fat and sodium from his diet, took a battery of medications and kept an exercise regimen. He even heeded a physician who advised him to have a pacemaker put in, along with an internal defibrillator that could fire life-saving pulses should his heart need the help.

That's what happened Dec. 10 when Amprey blacked out at the wheel. His Lexus left the road, careened down an embankment and came to rest against a tree.

His heart, weaker after years of use, had stopped for 24 seconds, coming back to life only when the defibrillator did its work.

Paramedics rushed him to the hospital, where doctors decided he needed the transplant. But they feared he wouldn't survive long enough for an organ to become available. They chose to install an electronic heart pump — a ventricular assisted device, or VAD — instead as a "bridge to transplant."

Invented in the 1950s, VADs, which are generally affixed to the left ventricle, help the enfeebled heart pump blood through the rest of the body. They were originally the size of automobile carburetors, so big that surgeons had to split the patient's chest wide open to get them in.

The operation alone can be life-threatening, especially when the patient must undergo another open-heart procedure for the transplant itself.

Over the decades, engineers reduced the size of VADs — they're now the size and shape of a hockey puck — but progress on the medical side was slower. It wasn't until 2011 that surgeons in Europe, particularly in Germany, began perfecting less-invasive implantation.

Enter Pham, a native of Vietnam who immigrated to the United States in 1975. He later learned his trade at the University of Pittsburgh Medical Center, a facility known for its innovative organ-transplant programs, under Dr. Thomas Starzl, a pioneer in the field.

During a 14-year stint at the Miami Transplant Institute, Pham grew interested in the way a few surgeons were adapting minimally invasive techniques to his field.

The University of Maryland Heart Center hired him last May. Weeks after that, he was on a plane to Germany, where he watched the pioneers at work.

Their approach was to create a three-inch incision in the left side of the chest, where they implanted the pump, and a second in the upper chest just below the throat, where they placed an outflow graft, a prosthetic tube that carries blood from the pump to the aorta.

The procedure is tricky because it limits visibility and access, said cardiac surgeon Simon Maltais, VAD program director at Vanderbilt University Medical Center.

"You can't see the whole heart; you can only see the apex, so the process is less intuitive," said Maltais, who has performed about 40 of the surgeries.

Pham returned to Baltimore and trained his staff. Weeks later, their first recipient arrived. The University of Maryland center joined eight others in seven states — and one in the nation's capital — in offering the procedure.

Maltais said there are just "a handful" of American surgeons performing it, but that at his hospital it has become the approach of choice for valve and VAD implantations.

Amprey is under no illusion that his own path will be easy. He's still waiting for a heart, and he has been using a cane and a walker to get around. But he can hold the batteries that run his VAD in a satchel he wears with a shoulder strap. That's a far cry from consoles that, until as recently as the 1990s, were the size of refrigerators — so big a patient wore them outside the body (and it could take 10 nurses to help him or her go for a walk).

This VAD can also last eight to 10 years in the unlikely event it's needed that long.

Once Amprey regains more strength, Pham said, he'll actually be able to return to normal activities, working in his study or playing golf. For now, that sounds great to the patient.

"I recognize I'm fortunate to be alive," Amprey said. "God has taken care of me so far – God and Dr. Pham."

jonathan.pitts@baltsun.com

Heart Pump with Behind-the-Ear Power Connector

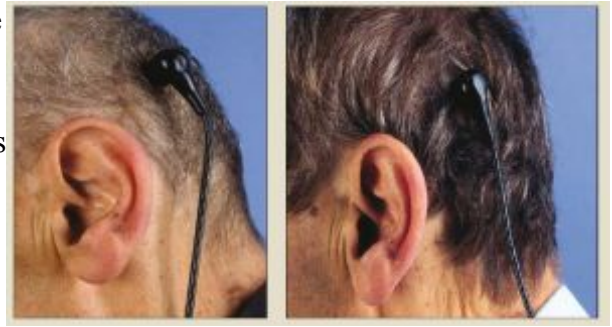
Tuesday, 01 October 2013
University of Maryland Medical Center, Baltimore, MD

One-third of patients with heart pumps develop infection at abdominal connection.

Cardiac surgeons and cardiologists at the University of Maryland Heart Center are part of a multi-center clinical trial evaluating the efficacy of powering heart pumps through a skull-based connector behind the ear. The pumps, called left ventricular assist devices (LVADs), support the heart's main pumping chamber, the left ventricle. LVADs are implanted in the chest and powered with external batteries. Typically, these devices, which are used for patients with severe heart failure, are powered through an electrical cord connected at the abdomen, where potentially deadly infections can develop.

"Over time, nearly one-third of our patients surviving with the

assistance of an implanted blood pump develop an infection at the site where the power cord exits the skin. This complication may be lethal but, if not, it is always a difficult problem," says the University of Maryland's principal investigator, Bartley P. Griffith, MD, the Thomas E. and Alice Marie Hales Distinguished Professor of Surgery at the University of Maryland School of Medicine, and a senior cardiac surgeon at the University of Maryland Medical Center.



Figs. 1a and b – Two views of the behind-the-ear connector. On the left, the connector is shown at one month after surgery. The right shows six months post surgery. (Credit: Jarvik Heart, Inc.)

The study, named RELIVE (Randomized Evaluation of Long-term Intraventricular VAD Effectiveness), compares two similar LVADs, which provide long-term support to patients with endstage heart failure who, for a variety of reasons at the time of implant, are ineligible for a heart transplant.

Two Different Methods of Connection

The major difference is in the way electrical power from the battery pack gets to each pump implanted in the chest. In one case, the internal power cord is routed through a traditional opening, or pump pocket, in the abdominal wall. In the other, the internal power cable is tunneled through the neck to the head. The internal cable is connected to a socket or pedestal placed behind the ear in the skull, in the same area used to pass cochlear implant electrode wires into the body. On the outside of the skull, a waterproof cable running from the battery pack is plugged into the socket. (See Figures 1a and b)

Patients in the study were randomly assigned to one of two groups. One group received a Jarvik 2000 LVAD equipped with an investigational behind-the-ear connector from Jarvik Heart, Inc., the funder of the study. The other group of patients were given Thoratec Corporation's HeartMate II Left Ventricular Assist System, which is the most widely used FDA-approved LVAD for destination therapy. The Thoractec unit employs an abdominal connector.

One of the problems with the abdominal approach relates to the softness and flexibility of the abdomen. According to Griffith, even micro-movements of the power cable at the abdominal entrance can set the stage for infection. The investigators theorize that the stability of the bone-mounted terminal coupled with the vast blood supply in the scalp can reduce the chance of infection. And, locating the connector in the head allows patients to shower or swim.

Since the Jarvik implantation involves the head and neck, the cardiac team has formed an unusual collaboration with another surgical department at the School of Medicine. Ronna P. Hertzano, MD, PhD, assistant professor of Otorhino laryngology-Head and Neck Surgery at the University of Maryland School of Medicine, extends the internal Jarvik power cord through the neck and places the socket in the skull. Hertzano, whose specialty includes hearing restoration and diseases of the ear and lateral skull base, works alongside the cardiac surgical team at the time of the procedure to correctly place the wire and skull connector.

In the early days of heart pump technology, infection was less of an issue compared with device failure, bleeding, clotting, and limited patient survival. But, with today's more durable units and with patients using them for extended periods of time, infection protection has taken on a new importance. Today's improved pump designs producing continuous, minimally pulsatile blood flow make it possible for LVADs to run for years, even supporting the patient for the remainder of his or her life.

The Jarvik skull model has already been approved for use in Europe. The clinical comparison in the United States opened for patients this year. The study will follow 350 patients for up to three years.

Death Of One Teen Brings New Life To Classmate

Death of One Teen Brings New Life to Classmate

WUSA 9 Staff, WUSA *4:31 p.m. EDT July 12, 2013*

(Photo: WUSA)

PASADENA, Md. (WJZ)-It's an amazing story of two Maryland teens. A tragedy and a tie that connects them forever.

The death of one teen bringing new life for the other is a story of pain followed by promise.

It was a dark night on a dark road in Pasadena when a SUV hit and killed ateenager and then sped off without stopping.

"Someone took my boy's life, took his life away, 15 years old," said Mike Marion, the victim's father.

At the same time, another boywas in a hospital bed, fighting for his life. A genetic defect meant his heart would soon fail.

"Do you know how hard it is to match a heart?" said his mother Denise Wilkerson.

The chain of events that brought these two Pasadena families together at the University of Maryland Medical Center is nothing short of miraculous.

"If I saw this story on the Hallmark Channel I wouldn't have believed it," Wilkerson said.

As the father of 15-year-old Skylar Marion came to the horrible realization his son will never wake up from the accident, he learned another boy in the same hospital was in dire need of a new heart. He went to his son's bedside to make a heroic choice.

"Skylar's life got taken away from him and the only way to keep him going on is share him, and that's what I figured to do," said Mike Marion.

It was a life-changing moment for 15-year-old Kyle Wilkerson and his family, who had heard from friends about Skylar's tragic accident.

"It was Monday, the 15th, in the evening at 6:25 when Dr. Feller came in," said Denise Wilkerson. "He opened his eyes and he looked at her and he said 'Is it Skylar's?'"

When asked, "Do you remember that?" Kyle Wilkerson nods his head.

Even after his heart wrenching choice, Mike Marion didn't realize the two boys had known each other for years.

"Since second grade," says Kyle Wilkerson.

"Then I found out that they rode bikes together," Mike Marion said.

"So Skylar had been here and Kyle had been over at their house," said Denise Wilkerson.

Even though Skylar's dad wanted Kyle to get his son's heart, complicated pieces needed to fall into place.

"Everything else has to align: the blood type, the size, the medical history, so everything else has to be perfect. That's even more unusual. And in this case it was perfect," said Dr. Erika Feller, Kyle's cardiologist.

"This whole community came together for me and my family and Kyle's family," said Mike Marion.

Hundreds turned out for Skylar's memorial, including Kyle's mom.

"Mr. Marion hugged me like I did him a favor," said Denise Wilkerson. "And thanked me. And the whole time I'm here to thank him. He was grateful that it was a match and that his son could go on."

"Knowing that I have his heart, he still lives on," said Kyle Wilkerson.

Yet another unusual twist to the story, Kyle's father had the same genetic defect and had a heart transplant eight years ago.

Both he and Kyle are doing great, and doctors say their prognosis is excellent.

Anne Arundel County police are still searching for the driver who struck and killed Skylar. If you have any information, please call investigators at **410-222-8610.**

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