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Heart attack

**CAUSES, DIAGNOSIS,
TREATMENT**

KNOW THE SYMPTOMS

**8 STEPS TO
REDUCE RISK**

**HEART ATTACKS
IN WOMEN**

**HER SYMPTOMS MAY
DIFFER FROM HIS**

PLUS
**NUTRITION AND
EXERCISE FOR A
HEALTHY HEART**



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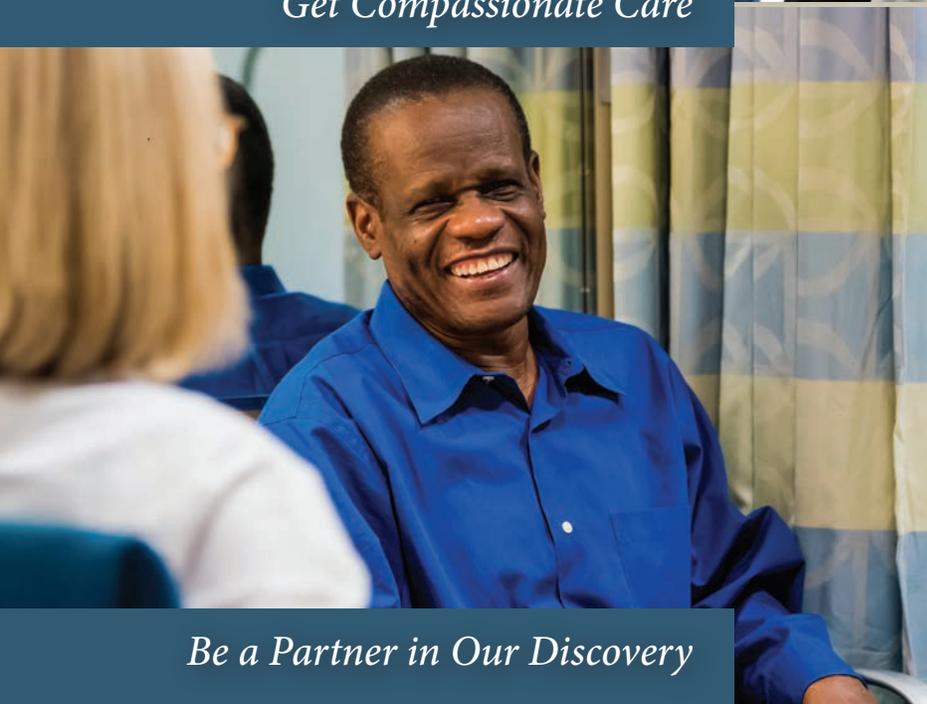
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PHOTO: ADOBE STOCK



Heart Attack Summer 2021

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Have a heart

It's the only one you've got

➔ **THE HEART HAS A PRETTY BIG JOB. IT FEEDS THE ENTIRE BODY. WITH EVERY BEAT IT DISTRIBUTES LIFE-SAVING OXYGEN AND NUTRIENTS TO VITAL ORGANS AND MUSCLES.**

It beats about 100,000 times a day and 35 million times a year.

You would think that with such a large responsibility, the heart must be pretty hefty. Actually, it doesn't even weigh a pound. It's about the size of a fist, and can fit snugly in the palm of your hand.

Clearly, size does not matter.

It might sound incongruous, but in order to pump blood, the heart needs a supply itself. Four major arteries feed the heart. But if the blood is blocked, a heart attack can ensue.

An invisible enemy

Without warning atherosclerosis, or plaque, a composition of cholesterol, white blood cells, calcium and other inflammatory substances, can build up in the walls of the arteries. "The process for plaque formation starts early in life," explained Dr. Pradeep Natarajan, the Director of Preventive Cardiology at Massachusetts General Hospital. "Healthy behaviors early in life are important."

The best way to determine if a person has plaque buildup is assessment of risks. A doctor will check cholesterol, blood pressure, glucose for diabetes, weight and smoking history. Age and family history are key as well. Your risk is increased if a first-degree relative, such as a parent or sibling, had a heart attack before the age of 55 if male and 65 if female. African Americans are hit hard largely due to the high prevalence of diabetes, hypertension and obesity.

In some instances, however, a heart scan is a better tool to detect and measure plaque in the arteries. A score greater than 400 is a sign of very high to severe heart disease and heart attack risk, according to the American Journal of Cardiology.

The mere existence of plaque is not necessarily a threat. If it ruptures, however, a blood clot can form, and if of formidable size, obstructs the flow of blood to the heart.

This is a heart attack, also known as myocardial infarction.

The impacted section begins to die and will result in permanent damage if not quickly treated.

Different types

Not all heart attacks are alike. The blockage can be partial or complete. One or more arteries may be affected. Plaque is not the culprit in all cases. Spasms caused by illicit drug use, such as cocaine, can impede the blood flow.

Some attacks go unnoticed. The victim doesn't even know it has occurred. These are called silent heart attacks. People with diabetes tend to fall into this category. Their ability to feel pain is often reduced due to damage to the nervous system. That's not a good thing since diabetes on its own is a major risk factor for heart disease.

Unrecognized symptoms

Someone has a heart attack every 40 seconds, according to the American



The process for plaque formation starts early in life. Healthy behaviors early in life are important."

— Dr. Pradeep Natarajan

Heart Association. It is not surprising then that it is the leading cause of death in this country. Uncontrolled risk factors are the chief cause, but there is another.

People often do not recognize the symptoms of a heart attack. A study published by the Centers for Disease Control and Prevention found that only 50% of those interviewed were familiar with the five common heart attack symptoms. Lack of recognition was more common in minorities and those less educated. You can thank TV and Hollywood for that.

The typical depiction is a man clutching his chest and left arm while staggering to the ground. Such symptoms do occur, but most often they're more subtle. That's part of the problem. People often mistake their symptoms for lack of sleep, overwork or indigestion and reach for the Tums instead of 911.

The most common symptoms are pressure or tightness in the chest, nausea, dizziness, pain in the neck, jaw or back, or



Dr. Pradeep Natarajan, Director of Preventive Cardiology, Massachusetts General Hospital

shortness of breath. Sometimes they subside, then return. Some attacks are immediate, while others develop more slowly over a matter of days.

Natarajan offers some pointers. “New” and “persistent” are the key words. “Be aware of any pain in the chest, especially if it’s new and persistent, he explained. And it’s not just chest pain. “Persistent discomfort, shortness of breath, indigestion that does not go away with rest are all symptoms.”

Act fast

If you have any of these symptoms, call 911 immediately. Emergency medical services not only begins treatment in your home, but also initiates communication directly with a hospital to ensure timely intervention.

Take an aspirin if it does not interact with other medications. “Take one adult aspirin or four baby aspirins,” explained Natarajan. Aspirin is a blood thinner and slows clotting.

Do not drive yourself to the hospital. Your symptoms can deteriorate

en route. Even worse, although not common, heart attacks can cause a cardiac arrest. Fewer than 10% of these cases that occur out of hospital survive.

The American College of Cardiology and American Heart Association

have established guidelines called “door to balloon time,” which refers to a 90-minute window of time to reopen arteries for best patient outcomes following a heart attack. If you drive yourself, registration and delays in the emergency room can result in failure to meet the guidelines.

Diagnosis and treatment

Several tests are used to confirm a heart attack. An EKG, or electrocardiogram detects damage in the heart and shows if it is beating normally. A blood test looks for a protein called troponin that is elevated when the heart muscle becomes damaged.

An invasive test called catheterization uses dye and an x-ray to look inside the heart for possible blockages.

Depending on the extent of the damage, three different treatments may be offered. Medication called a clot buster will dissolve the blood clot causing the obstruction. Angioplasty is a minimally invasive procedure. A small balloon is inflated at the blockage to increase blood flow. A stent is often placed to keep the artery open once the balloon is deflated and removed.

More involved cases, however, may require surgery called coronary artery bypass graft, or CABG, during which vessels from the leg or chest are used to route blood around the blockages.

WHAT'S YOUR NUMBER? An important baseline

Screening tests help determine if you are at risk for a heart attack. The recommended readings may differ for those with a history of coronary heart disease or diabetes.

RISK FACTOR	RECOMMENDED READING
■ Blood pressure	<120/80
■ Diabetes	
Glucose	<140
A1C.....	<5.7
■ Lipid Panel	
Total cholesterol	<200
HDL	>40 in men, >50 in women
LDL.....	<100
Triglycerides	<150
■ Body Mass Index (BMI) ...	18.5 - 24.9

Source: Mayo Clinic

Prevention

The best treatment, however, is prevention. Keep your weight down, eat healthy foods, don't smoke, take a walk. Heart attacks are largely avoidable with healthy lifestyles. Manage your blood pressure, cholesterol and glucose. If you have unfortunately suffered a heart attack, take steps then to avoid another.

You are born with one heart. It is programmed to keep pumping to keep you alive, but to do that, it needs a little help from you. **B**

SIGNS AND SYMPTOMS

Not always what you may think.

- Chest pain or discomfort
- Lightheadedness or feeling faint
- Pain or discomfort in the jaw, neck or back
- Pain or discomfort in arm or shoulders
- Shortness of breath
- Unusual or unexplained fatigue
- Nausea or vomiting
- Cold sweat

RISK FACTORS

Some risk factors of a heart attack are beyond our control:

- Age: increases with age
- Race: more common in Blacks
- Gender: more common in males
- Family history

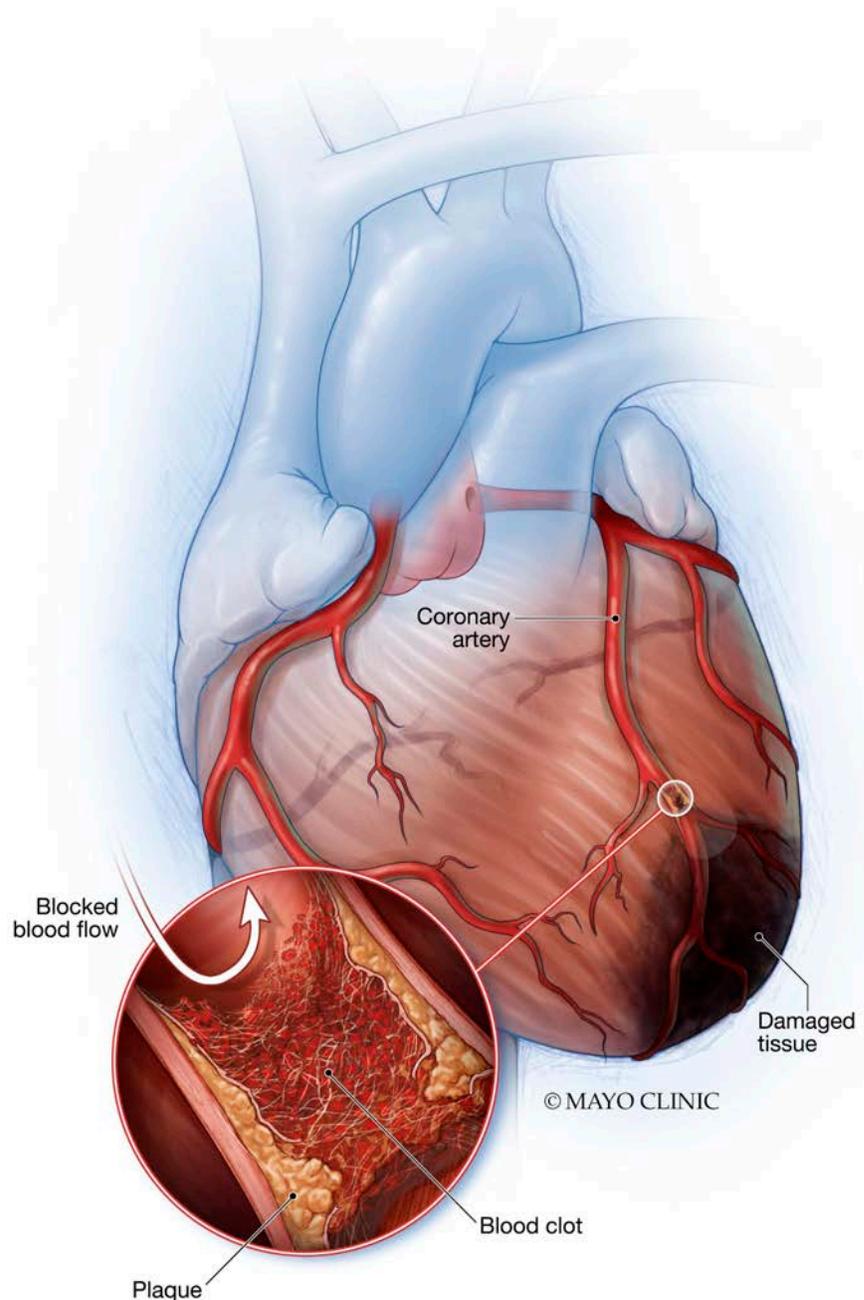
Others aren't:

- Blood pressure
- Cholesterol
- Triglycerides
- Weight
- Diet
- Tobacco and alcohol use
- Exercise

Source: American Heart Association

A closer look

During a heart attack, a blockage, usually caused by plaque, reduces or prevents blood flow in one or more arteries. If treatment is delayed, that section of the heart begins to die, and can result in permanent damage.

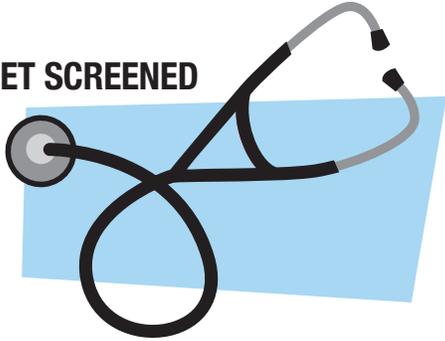


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the BIG 8

Here are eight important steps to follow to reduce the risk of a heart attack

1 GET SCREENED



2 Eat a HEALTHY DIET



3 Be PHYSICALLY ACTIVE



4 Maintain a HEALTHY WEIGHT



5 DON'T SMOKE



6 TAKE your MEDS



7 LIMIT ALCOHOL
One a day for women; two a day for men



8 REDUCE STRESS



By the numbers: Heart Attack

#1

The number one cause of death in the U.S.

805k

The annual number of cases

20%

The percent of silent heart attacks per year

40

A heart attack occurs every 40 seconds in the U.S.

200k

The number of repeat heart attacks per year

\$12.1B

Yearly cost of treatment

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Focus: Heart attack

A closer look



- » An unforeseen heart attack **10**
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- » 911 for a heart attack **16**
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Recognition of the symptoms of a heart attack and quick intervention improve survival rates.

An unforeseen heart attack

Not the usual suspects

➔ WAYNE YSAGUIRRE, 55, WAS NO STRANGER TO EXERCISE. WHEN THE ROXBURY YMCA OPENED AT 5 A.M., HE WAS ONE OF THE FIRST THROUGH THE DOORS. HE HAD A ROUTINE — AN HOUR AND A HALF OF AEROBICS ON ONE OF THE Y'S EXERCISE MACHINES. He at first

ignored the pain in his chest that occurred when he picked up the pace of his workout. Since the pain subsided when he slowed a bit, it was not serious, he reasoned.

That went on for a couple of days. The third day was a different story, however. This time the pain did not subside, and it was paired with clamminess and sweating. When his wife found him doubled up on the sofa, the emergency room was their next stop.

His EKG was normal, but the blood test was suggestive of a heart attack. A catheterization that provides an image of the heart's circulation, told the tale. Three arteries in his heart were 95% blocked, Ysaguirre explained.

He had two choices — a stent to prop open the arteries, or a coronary bypass, which is surgery that routes the blood around the blocked passages. His cardiologist explained that stents would work if Ysaguirre made certain lifestyle changes.

What he learned was eye-opening.

Ysaguirre did not have the usual risk factors for a heart attack. Even his age did not fit. The average age is 65, according to Heart Health, a publication of Harvard Medical School. He was 47 at the time. The young age suggests a genetic link, but it did not apply in this case. He had quit smoking



Wayne Ysaguirre, Executive Director, The Care Institute

PHOTO: MIM ADKINS

years before. Smoking is typically associated with cancer, but it damages the inside of arteries as well.

He had no history of high blood pressure, diabetes or cholesterol. But there are two risk factors that in all probability were the culprits behind his attack. It was a rude awakening to Ysaguirre to learn that he had obesity. “It was shaming,” he confessed. His BMI was 34.4. A measure of 30 or higher is classified as obese. The other factor was his eating style. “I ate too much,” he admitted. “There was no signal to my brain to stop,” referring to the brain-gut connection that sends a signal when an individual’s hunger has been satisfied.

Stress may have played a role as well. He was the CEO of a nonprofit. His job was demanding and non-stop. He reasoned that food may have been a way of calming him. Unfortunately, the food he ate was loaded with fats and sodium.

Since his heart attack, Ysaguirre has had a “Come to Jesus” experience, and has made significant changes in lifestyle. He

participated in a cardiac rehab program. The physical therapist helped him understand the strong connection between heart health and physical activity.

He made three seemingly minor changes — small steps but a huge impact. First he downsized his food plate from 12 to nine inches. According to a study from Cornell University, the bigger the plate, the bigger the portions. Large plates and bowls tend to make servings look smaller, so people compensate by filling up the empty spaces. The study suggested that smaller plates help a person eat less but still feel satisfied. It’s a way of tricking the brain.

The other change is what he puts on that plate — a protein and two veggies. Knowing his penchant for overeating, his cardiologist offered advice. “Overeat salads,” he advised, “and eat the salads first.”

The third change is how he grocery shops. “I shop the perimeter of stores,” he explained. The perimeter of stores tend to have fresh, healthy, and unprocessed food, such as fruits, veggies, meats and

dairy products. The center aisles tend to be stocked with sugary and less healthy foods.

What surprised him the most was his change in taste for sodium. He stopped eating out. Restaurants offer not only large portion sizes but also foods high in sodium. According to the Centers for Disease Control and Prevention, 71% of the sodium Americans consume comes from packaged, processed, store-bought and restaurant foods. Surprisingly, only 6% comes from salt added during cooking or at the table. That change took some getting use to. Food at first had no flavor, but that lasted about a week. He knew he had arrived when he ordered curried goat — one of his favorite dishes. “I thought I was just eating salt,” he said.

It’s been eight years, and the changes he made seem to be the right ones. His weight is down; his palate is more refined. His follow-up appointments with his cardiologist are now yearly instead of every six months. He’s back in the gym.

And no more chest pains. **E**

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Talk to your doctor today about what heart disease or diabetes programs are available to you.

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Not your father's heart attack

A bit different in women

➔ **YOU WOULD THINK THAT A WOMAN'S HEART IS JUST A SMALLER VERSION OF A MAN'S. AND IN SOME WAYS IT IS. IT HAS FOUR CHAMBERS AND IS NOURISHED BY A NETWORK OF ARTERIES. BUT A CLOSER LOOK CAN SHOW SOME DIFFERENCES.**

"The arteries are smaller and tortuous (curly)," explained Dr. Malissa Wood, co-director of the Corrigan Women's Heart Health Program at Massachusetts General Hospital.

That can cause problems in diagnosing a heart attack. The tools used were designed for larger arteries, and may not pick up subtle changes in a woman's heart. That is often why women get an OK sign but a heart attack is still lurking.

MINOCA

Even more confusing is that plaque is not always the cause of a woman's attack. Women are more susceptible to an unusual form of heart attack referred to as MINOCA (myocardial infarction with non-obstructive coronary arteries). These women tend to be younger and non-white, according to the American Heart Association, and less likely to have traditional risk factors.

Instead of a buildup of fatty deposits, the attack is attributed to a spasm or tear in an artery. In some cases small deposits of plaque exist, but cause erosion or irritation of an artery rather than blockage, and escape notice.

The cause of MINOCA is not well understood. Hormones, stress and depression are possible contributors. Broken heart syndrome may also be to blame. This is a temporary heart condition brought on by extreme emotions or a stressful situation, such as serious illness or surgery.

The cause may be atypical, but the impact is the same. A study published



Dr. Malissa Wood, Co-director, Corrigan Women's Heart Health Program, Massachusetts General Hospital

in *Circulation* found that women with MINOCA have a similar risk of death as those with more common types of heart attacks.

Correctly diagnosing women can be tricky. EKGs do not always tell the story. If symptoms come and go, the test can be normal. Cardiologists additionally rely

on the patient's history and symptoms and the result of a blood test. Troponin, a protein, is released in the blood during a heart attack.

Not the same

Men and women share the same risk factors of a heart attack, but some take a heavier toll on women. For example, diabetes in women poses a greater risk than it does in men. Smoking is even worse, especially when combined with birth control pills. "This is a dangerous combination regardless of age," Wood said. "Women are at increased risk of blockages in the arteries."

Even the symptoms of heart attacks are different. Although both men and women complain of chest discomfort or pain, women may experience more pain in the back, jaw or neck, shortness of breath, nausea or excessive fatigue. Symptoms can appear at rest or be precipitated by emotion. Be aware of a discomfort you've never felt before, advised Wood.

Black women

According to the Office of Minority Health, Black women are more frequently diagnosed with hypertension, diabetes and obesity — all significant risk factors of heart disease. In addition, lupus, an inflammatory disease, is more common among Black women. Lupus is linked to kidney damage but inflames the heart as well. It changes the biology of blood vessels, and can cause the buildup of plaque. The heart muscle gets scarred.

But it's the aftermath of heart attacks that's worrisome. Within a year of a first attack 10% to 31% of Black women

will die, depending on age. Within five years up to 64% of Black females will die or be diagnosed with heart failure or a stroke. Lack of awareness is partly to blame. According to the AHA, only 36% of Black women know that heart disease is their greatest health risk and only one in five believes she is personally at risk. More concerning is that only 58% are aware of the symptoms of a heart attack.

Nature's stress test on the heart

When Wood refers to the miracle of birth, she means it literally. Pregnancy causes a dramatic rise in blood flow and additional workload on the heart. In addition, some women — although previously healthy — experience a temporary spike in blood pressure called preeclampsia, or elevated blood sugar levels referred to as gestational diabetes.

Generally, both conditions go away after childbirth, but their impact can linger. The American College of

According to the AHA, only 36% of Black women know that heart disease is their greatest health risk and only one in five believes she is personally at risk. More concerning is that only 58% are aware of the symptoms of a heart attack.

Cardiology has found that preeclampsia doubles the risk of a heart attack in the future and quadruples the risk of high blood pressure. In addition, pre-term births, defined as before 37 weeks of pregnancy, are associated with cardiac deaths later in life.

It's important to be on the look-out for specific signs of heart disease. They are often overlooked as the remnants of delivery. Symptoms may include heart palpitations, chest pain, high blood pressure, shortness of breath, dizziness, fatigue or swollen feet. The maternal death rate for Black women is 2.5 times that for white women and three times the ratio for Hispanic women.

“Cardiac problems are the number one cause of maternal deaths,” said Wood. “This is an absolute health crisis.”

Advocate

Yale School of Public Health found that roughly 50% of young women who report symptoms of a heart attack are more likely to have them dismissed. The doctors may not be familiar with the unique symptoms and instead diagnose acid reflux.

Keep pushing until you get the right answer, advised Wood. “Stick up for what you think.” **E**



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Age is just a number

Not too young for a heart attack

➔ IF YOU ASKED MEGAN CORBIN TO DESCRIBE A TYPICAL HEART ATTACK VICTIM, SHE UNDOUBTEDLY WOULD NOT INCLUDE HERSELF. YET, LAST YEAR AT THE AGE OF 30, THAT'S EXACTLY WHAT HAPPENED TO HER.

The symptoms started almost two weeks prior to her attack. Corbin said she felt as though she had acid reflux that probably could be alleviated by a healthy dose of ginger ale. She ignored the discomfort.

But that morning in July she was awakened by the pain. "It felt like pressure in my chest," she explained. Deep breathing didn't help. The symptoms worsened. She broke into a cold sweat and felt nauseous.

Eventually her left arm and half of her right arm went numb. She lay on the cool tiles of the bathroom floor, thinking that would alleviate the sweats.

After roughly 20 minutes, and the insistence of her husband, she agreed to go to the emergency room. It's a good thing she did.

An EKG confirmed the diagnosis. Corbin was airlifted to a larger hospital for more intensive treatment. She said that one artery in her heart was completely blocked. A stent was inserted to restore the circulation.

A heart attack at such a young age is unfortunately becoming increasingly common, and Black women in their 20s and 30s are more often the victims, according to a study presented at the American College of Cardiology's 70th Annual Scientific Session. Obesity and high blood pressure are the typical causes.

As far as Corbin knew, however, she was in relatively good health. She didn't smoke; her BMI was normal. She knew



Megan Corbin, dancer, heart attack survivor

of no history of heart disease in her family. She said that her diet was healthy. She ate lots of fruits and veggies. She broiled instead of fried. She was a dancer, which kept her physically active.

But two problems surfaced during her workup in the emergency room. Her blood pressure and cholesterol were elevated, and both are risk factors for a heart attack. Another condition may have played a role, and is often referred to as a silent risk. Corbin has lupus, an autoimmune disease that is more

common among Black females, and attacks at a young age. Lupus typically targets several body systems, including the skin, joints and kidneys.

But it can also damage the blood cells as well as the heart. Researchers for the Lupus Research Alliance compared the blood vessels of people who didn't have lupus to those afflicted. They found that the arteries of those with lupus were more likely to be stiff, inflamed and contain plaque, a fatty buildup that can block the arteries of the heart, resulting in a heart attack or stroke.

A heart attack at a young age is becoming increasingly common, and Black women are more often the victims.

According to Johns Hopkins, the risk of a heart attack is increased seven to nine-fold in people with lupus, and is common among young females.

Corbin participated in a cardiac rehab program. She takes meds for her heart and is closely monitored to prevent complications. She is now a spokesperson for the American Heart Association's Go Red for Women campaign.

In spite of all that's happened Corbin counts her blessings. "I might not have been evaluated for a heart attack because of my age," she said. She encourages other women of color to take their health seriously. "If something seems off, go to the doctor. If one doctor doesn't listen, then go to another."

The experience has made her reach for her dreams. She opened a dance studio she calls Alter Ego.

More importantly, though, she now recognizes the symptoms of a heart attack, and that age is just a number. **B**



HEART ATTACK SYMPTOMS: MEN VS. WOMEN

The most common symptom of a heart attack for both men and women is chest pain. But women may experience less obvious warning signs.

MEN		WOMEN
Nausea or vomiting		
Jaw, neck or back pain		
Squeezing chest pressure or pain		
Shortness of breath		
		Nausea or vomiting
		Jaw, neck or upper back pain
		Chest pain, but not always
		Pain or pressure in the lower chest or upper abdomen
		Shortness of breath
		Fainting
		Indigestion
		Extreme fatigue

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heart.org/warningsigns

Heart attack: Call 911

Let EMS do the driving

➔ EVEN WITH READY ACCESS TO EMERGENCY MEDICAL SERVICES, MANY PEOPLE EXPERIENCING A HEART ATTACK DRIVE THEMSELVES TO THE HOSPITAL. THEY ASSUME THEY CAN GET THERE FASTER AND PREFER NOT TO CAUSE A FUSS.

But an ambulance can reach you before you reach the hospital. They have the right of way and can run through red lights. It's not necessarily the speed that's important here. Your condition can worsen while driving and, although not common, you can go into cardiac arrest. Survival of out-of-hospital cardiac arrests is very low.

Time is critical. The American Heart Association has established guidelines called door-to-balloon time, a timeframe of 90 minutes from symptoms to treatment for good results for a heart attack. Balloon refers to angioplasty, an intervention that widens obstructed arteries.

When you drive yourself, time is lost in traffic jams, emergency room registration and even assembly of a medical team.

Heart attacks are labeled Priority 1, explained James Hooley, Chief of Boston Emergency Medical Services. That indicates a situation requiring immediate medical attention for a life-threatening illness or injury. It's a two-tier response by both Basic Life Support provided by firefighters and Advanced Life Support provided by paramedics.

The call taker keeps you on the line until help arrives. They confirm your address and telephone number in case of a disconnection. They might advise you to take aspirin, which slows clotting, and instruct in compression-only CPR should the need arise.

When the responders enter your home, you have a personal health care team devoted exclusively to you. They check your medical history and vital signs. They measure oxygen levels and start an IV to administer meds more



James Hooley, chief of Boston Emergency Medical Services

People assume the pain of a heart attack is severe and confined to the chest. Wrong on both accounts.

quickly. If you're in pain they provide nitroglycerin to relax the arteries allowing more blood to flow to the heart.

Using a portable 12-lead EKG machine, paramedics check for signs of a heart attack. The reading takes just a few seconds, but those few seconds form the basis for treatment in the hospital.

Constant monitoring continues en route in the ambulance to the closest hospital with expertise in catheterizations, which are tests to examine the extent of heart damage. When you reach the hospital, the medical team has already been assembled and is awaiting your arrival.

Another reason people don't call 911 is failure to recognize the symptoms of a heart attack. A recent study published by the Centers for Disease Control and

Prevention found that only 50% of those surveyed were familiar with the major symptoms.

People assume the pain is severe and confined to the chest. Wrong on both accounts. "It doesn't have to be that dramatic," Hooley explained. And the pain isn't always in the center of the chest. It can be in the jaw, arm, back or neck.

Hooley offers some tips. Is the pain new? "Suddenly you get short of breath on the same set of steps you normally do," he said. "That could be a sign. Or perhaps you're sweating, but it's not 95 degrees in August." Sometimes the pain comes and goes. It lasts for 30 seconds and goes away. "It [the heart attack] can be evolving," he explained.

The most important reason to call 911 is survival. According to the Heart Disease and Stroke Statistics—2021 Update, transportation by EMS results in lower in-hospital deaths from heart attacks. If you drive yourself, time is lost, causing further damage to the heart.

Hooley refers to the oft-repeated refrain by cardiologists. "Time is muscle," he said. **E**

A cardiac arrest survivor

Paying it forward

➔ ANEZI UZENDU DOESN'T REMEMBER MUCH OF WHAT HAPPENED THAT DAY IN 2016. PERHAPS THAT'S A GOOD THING.

According to an article published in UAB (University of Alabama at Birmingham) Medicine Magazine, Uzendu, a third-year medical resident at the university at the time, suffered a cardiac arrest while playing basketball in a local gym. Fortunately, cardiopulmonary resuscitation, or CPR, was initiated immediately. When hospitalized, he was placed in a medically-induced coma, and had little chance of survival, according to his attending physician.

But he did survive.

CPR in its current form was adopted in 1960 by the American Heart Association and is used for cardiac arrest. The purpose is to provide oxygen and blood to vital organs in an unresponsive individual. As commonly thought, cardiac arrest is not the same as a heart attack. An arrest is caused by an electrical malfunction. The heart stops beating. A heart attack, on the other hand, is attributed to a blockage in an artery. The person is still breathing; the heart continues to pump. However, the two are linked. A heart attack can sometimes trigger an electrical disturbance that leads to sudden cardiac arrest.

Uzendu said he knew in high school that he wanted to be a doctor. A rotation in the cardiac care unit sealed his interest in cardiology. He recently completed a fellowship in interventional cardiology at Massachusetts General Hospital.

An idea began to brew following his episode. Uzendu said he recognizes that he survived only because a person nearby was skilled in CPR. "That should be the case for everyone," he said. "Everyone should have



Anezi Uzendu, M.D., cardiologist

a fighting chance." Furthermore, he added that everyone should feel comfortable in performing CPR.

Unfortunately, that generally is not the situation in minority communities, according to several studies published in the Journal of the American Heart Association. In one study, Black kids were 41% less likely to receive bystander CPR compared to white kids. Researchers concluded that targeted CPR training for non-whites of low education or income may increase participation by bystanders and improve survival rates.

Uzendu decided to pay it forward and train young people and adults in the proper technique of hands-only CPR and the use of an automated external defibrillator (AED), which delivers an electric shock to help restart the heart. He developed a program called "Make BLS (Basic Life Support) Basic," and enlisted the



Everyone should have a fighting chance."

— Dr. Anezi Uzendu

help of the Boston American Heart Association and cardiologists from MGH for training sessions.

To date he has scheduled eight training sessions largely in community health centers. Even without training, however, a person may be able to perform CPR, he explained. There are basically four steps. To identify a cardiac arrest:

1. Look for a response. Shake or yell to get some movement.

2. Check the person's breathing. Is he breathing normally? If not, it's safe to assume the person is suffering a cardiac arrest.

3. Call 911.

4. Push hard and fast on the chest.

More detailed instructions are provided in class, but these four steps can be performed by even the less skilled. Continue the compressions until EMS (Emergency Medical Services) arrives.

Uzendu stresses the need to start compressions immediately. "Waiting for EMS is too late," he explained. More than 350,000 cardiac arrests occur outside of the hospital each year, according to the AHA, and only 10% survive.

Some people are fearful about doing harm. Not to worry, Uzendu emphasized. He suffered a couple of broken ribs due to CPR, but he's not complaining.

"A person is dying or dead [when in cardiac arrest]," he explained. "You might break a rib, but you save a life." **B**

When it comes to your heart, every beat counts



Prioritize your heart health with routine exams and screenings to detect and prevent heart disease.

For tips on keeping your heart healthy, visit bilh.org/hearthealthy.

Healthy Steps

Eat right, stay active, live well



- » Designing a healthy eating plate **20**
- » Take your heart for a walk **21**

Healthy lifestyles, including regular physical activity and good nutrition, can reduce the risk of a heart attack.

How much of what?

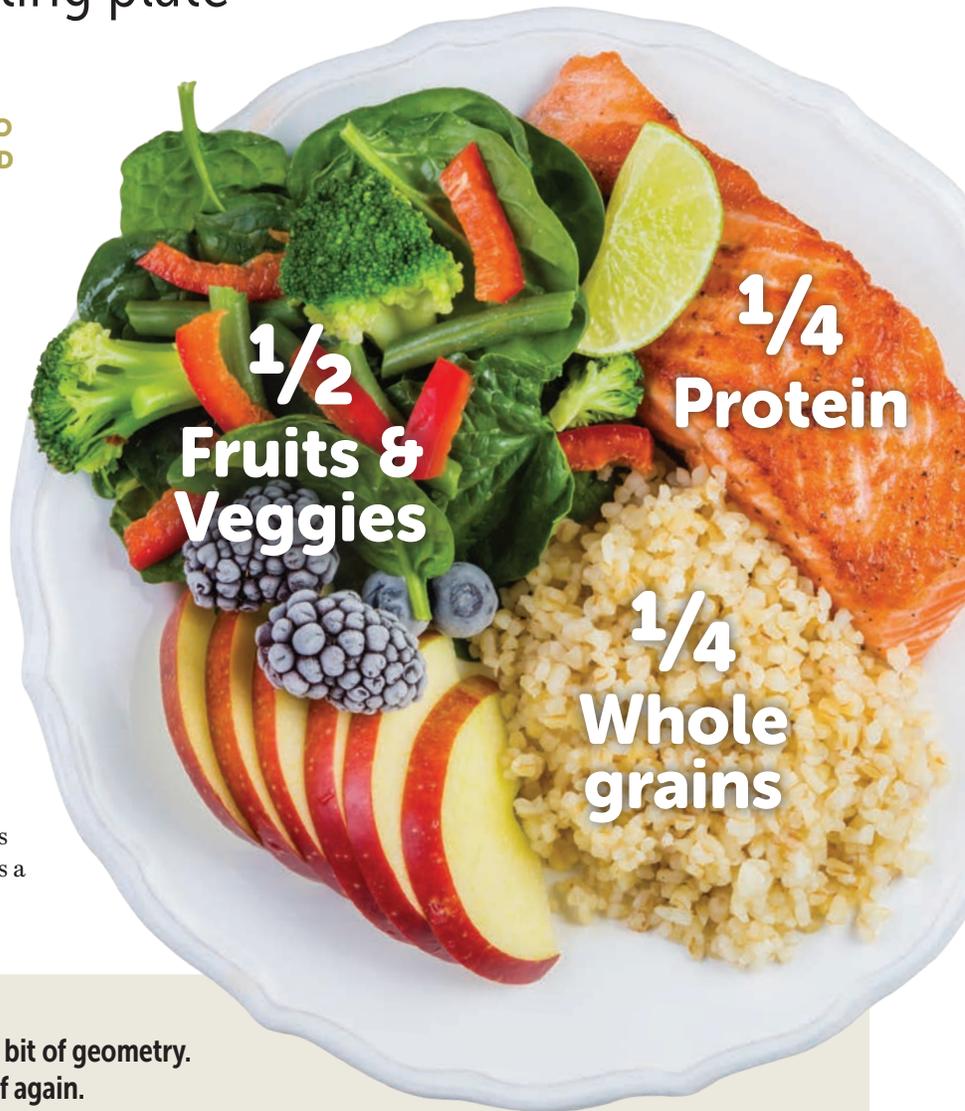
Designing a healthy eating plate

➔ **THERE IS NOT ONE EATING PLAN FOR ALL TO FOLLOW. THE TYPES AND AMOUNT OF FOOD DEPEND ON A PERSON'S, AGE, GENDER, WEIGHT, LEVEL OF PHYSICAL ACTIVITY AND TASTE.** Some people, such as those with diabetes, might follow a more regimented plan.

Food does more than satisfy one's palate. Researchers at Harvard T.H. Chan School of Public Health analyzed four healthy eating patterns that emphasize higher intake of fruits, veggies, whole grains, legumes and nuts, and lower intake of red and processed meats and sugar-sweetened beverages. They discovered that study participants who adhered more diligently to these patterns had a 14% to 21% lower risk of cardiovascular disease compared to those who adhered the least.

In addition, healthy eating was significantly associated with a lower risk of coronary heart disease, which causes most heart attacks, and the lower risk persists across racial and ethnic groups.

Nutrition experts at Harvard University designed what they call a healthy eating plate to demonstrate suggestions for a more nutritious diet. The emphasis is on diet quality rather than calories. Moreover, it allows a personal choice. **B**



To design your personal plate, all it takes is a bit of geometry. Divide your plate in half. Then divide one half again.

Make half your plate fruits and veggies.

Choose a variety of colors. The most vibrantly colored are the richest in vitamins, minerals and fiber. They also contain antioxidants, which are thought to protect against heart disease.

Make one fourth of your plate whole grains

Eat whole rather than refined grains, such as wheat, oats, quinoa and brown rice. Choose whole-grain cereals and breads and whole wheat pasta over white rice and bread.

Make one fourth of your plate protein

Proteins are the building blocks of life. Examples are fish, poultry, beans, nuts and low-fat yogurt and milk. Limit consumption of red meat and avoid processed meat, such as bacon and hot dogs.

Drink water

Drink up. Water is essential to our survival. It provides nutrients and oxygen to the body's cells and organs. It cushions joints and rids the body of waste. Avoid sugary drinks, such as sodas and fruit drinks.

Use healthy oils

Choose healthy oils like olive, sunflower and peanut. Avoid partially hydrogenated oils (also known as trans fat), as found in margarine, commercial baked goods and coffee creamer. Trans fat raises "bad" cholesterol.

Take your heart for a walk

It needs the exercise

➔ **IN 2008, THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES TOOK A HUGE STEP FORWARD IN AN ATTEMPT TO ENCOURAGE PEOPLE TO PARTICIPATE REGULARLY IN SOME FORM OF PHYSICAL ACTIVITY.** They published the first edition of Physical Activity Guidelines for Americans, and presented a very simple overview of the type, frequency and duration of physical activity for adults.

Somehow the message was lost along the way. According to the Centers for Disease Control and Prevention, 10 years later, only 23% of adults aged 18 and older met the guidelines for both aerobic and muscle-strengthening activity. Apparently, people prefer Zumba or basketball over weights. Fifty-three percent of adults aged 18 and older met the guidelines for aerobic activity only.

But still that means that roughly half of US adults do not engage in any physical activity at all. That's a mistake. Particularly when it comes to the heart ... and heart attacks.

There are at least seven conditions that increase a person's risk for a heart attack. Each on its own can wreak havoc on the arteries of the heart. But if you can control just one — physical inactivity — many of the others often fall in line.

Keep in mind that the heart is a muscle. Regular physical activity makes it stronger and more efficient. In so doing, it impacts several other factors related to a heart attack.

A stronger heart is able to pump more blood with less effort. As a result, the force on the arteries decreases, which in turn lowers blood pressure. Aerobic activities in particular have been found to keep HDL, or the “good” cholesterol high, and triglycerides low, preventing plaque buildup. It even makes the body more sensitive to insulin, which helps lower blood glucose in people with diabetes.

A daily walk can reduce excessive pounds and reduce stress. Mayo Clinic calls exercise “meditation in motion.” It increases endorphins, the brain's feel-good chemicals; it helps you relax; it

The heart is a muscle. Regular physical activity makes it stronger and more efficient.

reduces depression and anxiety. People under stress have a higher tendency to overeat, smoke, or abuse drugs or alcohol. It takes a physical toll as well and increases heart rate and blood pressure.

The HHS is not giving up. In 2018 it published a revised edition of its guidelines. No one gets a free pass. The guidelines have expanded to children, older adults, women during pregnancy and even those with disabilities.

The message is the same, though. Just move. **B**



Adults need a mix of physical activity to stay healthy.

Moderate-intensity aerobic activity*
Anything that gets your heart beating faster counts.

at least
150
minutes
a week







AND

Muscle-strengthening activity
Do activities that make your muscles work harder than usual.

at least
2
days
a week




*If you prefer vigorous-intensity aerobic activity (like running), aim for at least 75 minutes a week.
If that's more than you can do right now, **do what you can**. Even 5 minutes of physical activity has real health benefits.

Walk. Run. Dance. Play. **What's your move?**





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WHITTIER STREET HEALTH CENTER

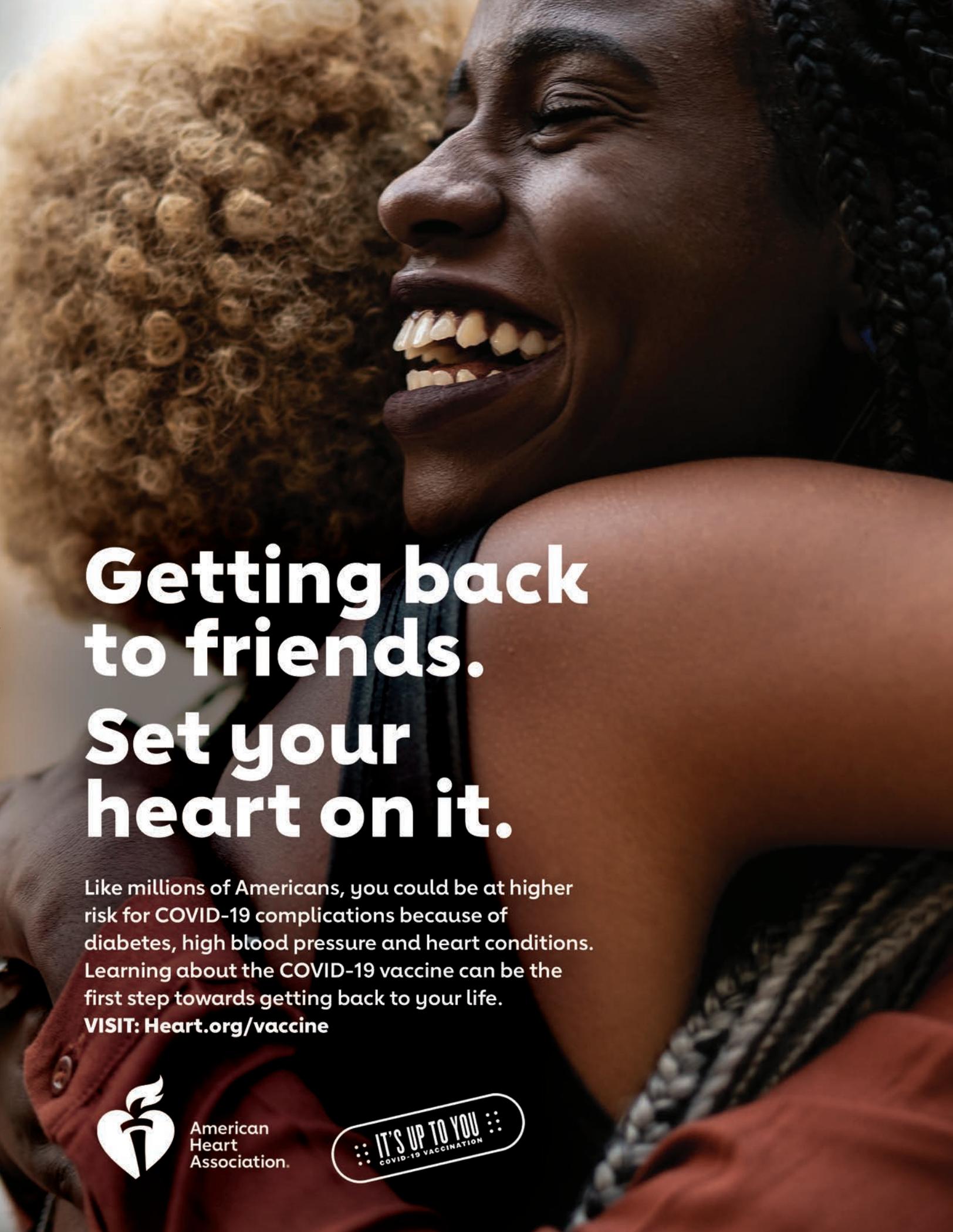
Comprehensive. Compassionate. Community.

Whittier Street Health Center is a Joint Commission-accredited urban community health care center providing primary and specialty health care, oral health, eye care, mental health and substance abuse services, and social services to individuals from culturally and circumstantially diverse communities. Whittier's mission is to serve as a center of excellence that provides high quality, and accessible health care and social services that achieve health equity, social justice, and the economic well-being of our diverse patient populations.



Whittier is expanding its mobile programming to create greater access to comprehensive health care and social services for Boston residents, and to address health disparities and eliminate barriers to health. The expansion of Whittier's Mobile Health services will include: school-based clinics, medication delivery, dental hygiene services, health screenings, primary care, behavioral health screenings, vision screenings, HIV testing/counseling and linkage to care.

Whittier Street Health Center is located at 1290 Tremont Street, Roxbury, MA 02120, with a satellite site located at 278 Blue Hill Avenue, Roxbury, MA 02119



Getting back to friends. Set your heart on it.

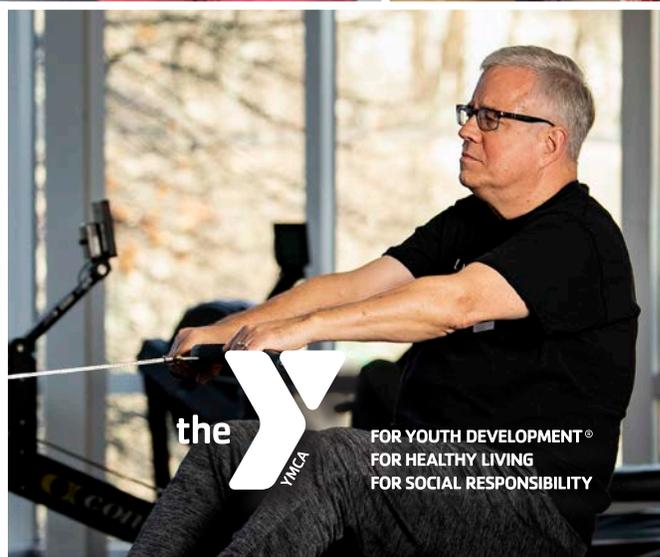
Like millions of Americans, you could be at higher risk for COVID-19 complications because of diabetes, high blood pressure and heart conditions. Learning about the COVID-19 vaccine can be the first step towards getting back to your life.

VISIT: [Heart.org/vaccine](https://www.heart.org/vaccine)



American
Heart
Association.





HEALTH MATTERS

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Join the Y today and get healthy with us. We have over 13 safe and clean branches open throughout Greater Boston. Getting and staying healthy has never been more important than now, and the Y is here to help you wherever you feel most comfortable, in person or online in our virtual studio - YMCA GO - offering daily live streamed classes and a library of over 500 on-demand workouts.

When you join the Y, you're not just doing something good for yourself, you're doing something good for your community. We call it meaningful membership.