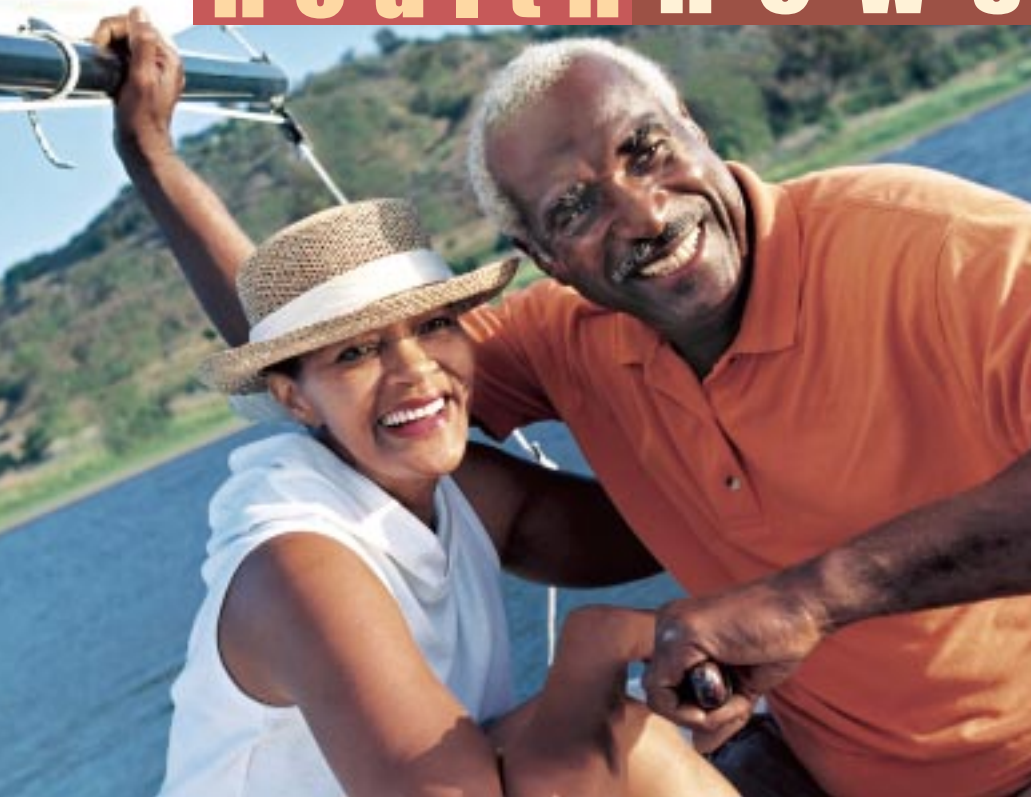


# Heart

## health news



Summer 2004



### The Heart Center at St. Rita's builds third cath lab

The Heart Center at St. Rita's will soon open a third state-of-the-art cardiac catheterization lab in response to the growing number of heart procedures.

The new lab will be used for cardiac catheterizations and interventional procedures such as angioplasties and stents.

The lab will be fully equipped with digital technology, which will provide physicians with crisp images to make cardiac anatomy—even the smallest coronary artery—easy to see.

The imaging technology will minimize distortions often associated with conventional systems. And, our staff of highly qualified interventional and invasive cardiologists will have secure access to the images from a computer anywhere in the world, which means more rapid diagnosis and treatment.

In addition, the design of the hardware is more space-efficient, with flat screens and compact design.

### What is cardiac catheterization?

Cardiac catheterization is a minimally invasive procedure that provides clear,

*| continued on page 5 |*

### Your call to action Controlling prediabetes now can stop diabetes later

You've no doubt heard about the dangers of type 2 diabetes—caused in part by too little physical activity and too much body weight. Now comes another warning: the risk of developing prediabetes, the condition that often

*| continued on page 3 |*

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HUMIDITY AFFECTS  
YOUR HEART

For more information on the comprehensive heart services available through The Heart Center at St. Rita's, call St. Rita's Call A Nurse at **(419) 226-9000** or **1-800-437-4827**.

# CardioCurrents

news and tips for the heart-conscious



## DO VISITS TO THE DOCTOR MAKE YOU ANXIOUS?



**D**o you suffer from white-coat hypertension—when your blood pressure level rises at your doctor's office, resulting in a higher reading than what might be normal for you? If so, you may benefit from taking your own blood pressure at home for a more accurate reading. In a recent study, 400 hypertensive patients were assigned to two groups: One group measured their pressure at home and the other at a physician's office. Readings were

taken regularly and reported to a doctor who adjusted patients' blood pressure medication according to accepted guidelines. After one year, 26 percent of patients in the "home" group stopped medication, compared with 11 percent of the "office" group. Experts don't advise exclusive home management but say the study suggests self-monitoring may complement traditional care. ♥

## GETTING TO THE HEART OF THE HABIT

**Y**ou'd think undergoing heart bypass surgery would scare smokers into quitting, but as many as 75 percent of patients resume the habit after surgery. For these stubborn smokers, aggressive strategies work best, according to the medical journal *Chest*. Researchers compared two antismoking plans in 37 smokers who underwent heart surgery. Both groups were offered nicotine patches. The 20 people in the aggressive-treatment group enrolled in an additional eight-week cessation plan that included weekly education and behavior-modification counseling. While 14 of the 17 people in the conservative group resumed smoking, only three in the aggressive-treatment group did. ♥



## THE MEDITERRANEAN DIET IN A PILL?

**T**aking a page from an Italian cookbook, researchers may have hit on a way to reduce heart disease by using a component found in olive oil. The oil is a natural source of the fatty acid oleic acid, known to reduce blood pressure when consumed in large amounts over several months. Seeking a faster response, scientists used a synthetic derivative called 2-hydroxyoleic acid and gave it to rats through feedings and injections. After seven days of treatment, the rats' blood pressure decreased by 20 to 26 points. Experts hope the findings, reported in the medical journal *Hypertension*, lead to new hypertensive drugs. ♥



## Did you know?



About 65 percent of American adults—129 million people—are overweight or obese.

The health risk posed by physical inactivity is nearly as great as those for smoking, high blood pressure and high cholesterol.

American women consume 22 percent more calories a day than they did 30 years ago, and more than half their daily calories now come from carbohydrates like rice, bread and pasta.

## EYE-OPENING 'HEALTH BENEFITS' OF COFFEE

**W**hile drinking too much caffeine has its downsides—it can lead to irritability, poor sleep and a racing heartbeat—early research has found that people who drink an excessive amount of coffee may be less likely to develop type 2 diabetes. The study, conducted by the Harvard School of Public Health and Brigham and Women's Hospital, tracked more than 125,000 people for 12 to 18 years. Men who drank more than six cups of regular coffee a day reduced their risk for type 2 diabetes by more than 50 percent compared to noncoffee drinkers; women reduced their risk by 30 percent. But don't go reaching for that cup of java yet: Researchers warn that further studies are needed. Drinking six cups a day is extreme and can lead to other problems. If you're at risk for diabetes, ask your doctor about healthier prevention steps to take. ♥



## Your call to action

continued from page 1

precedes the development of full-blown type 2 diabetes, usually within 10 years. Still, prediabetes can be a lifesaving wake-up call. By motivating you to act now with the right intervention, you can lower your glucose levels, turn back the clock and prevent diabetes altogether.

### Are you at risk?

An estimated 20.1 million people have prediabetes, though many are unaware they have the condition since it usually shows no symptoms. But damage to your heart and circulatory system may already be under way. If you are overweight and over age 45, you may be at risk and should ask your doctor about a prediabetes screening. If you are overweight but younger than 45, your doctor may advise testing if you have any of these diabetes risk factors:

- high blood pressure
- low HDL, or “good” cholesterol, and high triglycerides
- a family history of diabetes
- a history of gestational diabetes or of giving birth to a baby weighing more than 9 pounds
- being of African-American, Hispanic/Latino, Native American or Asian/Pacific Islander descent

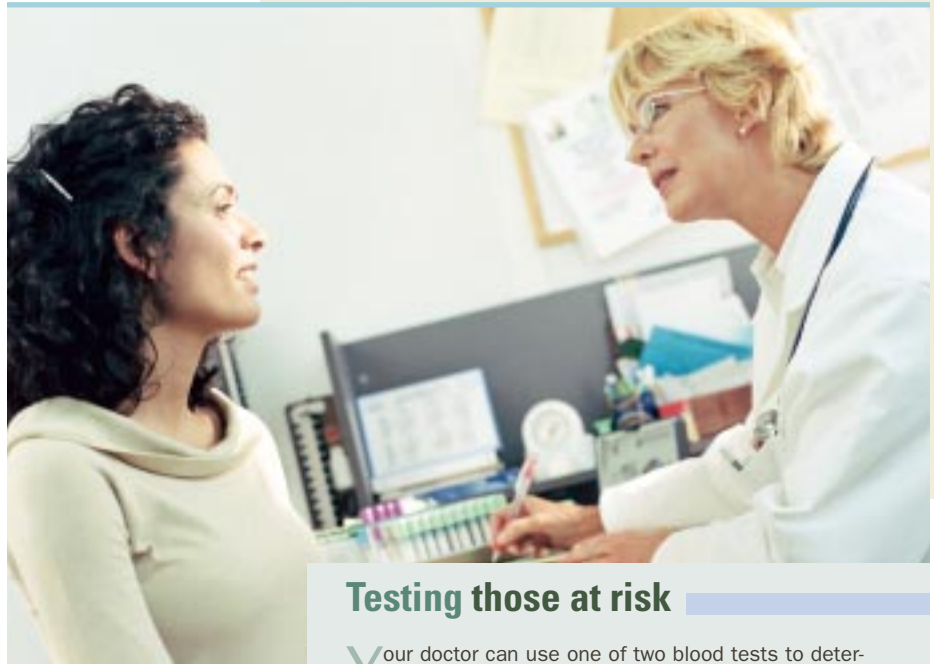
### Reversal of fortune

Lifestyle changes such as losing weight and exercising are key to avoiding diabetes and can reduce your risk for the disease by 58 percent. Even modest health improvements—losing as little as 5 percent to 7 percent of your body weight and getting 30 minutes of daily physical activity such as walking briskly or biking—may be enough to thwart the disease. Experts also recommend limiting the fat in your diet to no more than 30 percent of your total calories.

Currently, no drug has been approved specifically for prediabetes by the Food and Drug Administration. Trials involving existing diabetes drugs to control blood sugar, such as metformin and acarbose, proved each was effective at delaying or

## What is diabetes?

Diabetes is a metabolic disorder in which the body fails to properly use or make enough insulin, the hormone needed to convert sugar, starches and other foods into glucose, which the body uses as energy. Without insulin, your body becomes starved for energy, while the glucose builds up in your blood and damages your nerves and blood vessels.



## Testing those at risk

Your doctor can use one of two blood tests to determine prediabetes:

- a *fasting glucose test* measures your blood glucose after you've gone overnight without eating. Blood glucose levels between 100 and 125 milligrams per deciliter (mg/dL) indicate impaired fasting glucose or prediabetes. A level of 126 mg/dL or higher indicates diabetes.
- a *glucose tolerance test* measures your blood glucose after an overnight fast and two hours after drinking a sweet solution provided by the doctor. A level between 140 and 199 mg/dL means you have impaired glucose tolerance or prediabetes. A level of 200 mg/dL or higher indicates diabetes.

reducing the risk for diabetes but not as effective as lifestyle measures.

The incentive should be obvious. Diabetes is a leading factor in heart disease, stroke, blindness, amputations and kidney failure. Diabetes cannot be cured, and management to ward off complications involves lifelong daily vigilance of diet and medication. Experts hope that sounding the alarm on prediabetes will prompt the millions at risk to get control of their blood sugar, their weight and their health. ♥

# Are you beating to a different rhythm?

## A guide to managing arrhythmias

Most everyone has experienced an odd heart-beat—feeling your heart race, pound, flutter, pause or skip a beat. These episodes of unusual heart rhythm, or arrhythmia, caused by abnormal electrical impulses in the heart, are often minor and harmless. Sustained or more serious irregular rhythms, however, can pose a danger and lead to cardiac arrest.

Some people don't notice any symptoms. Others feel palpitations or a galloping or sluggish heartbeat, shortness of breath, chest pain or discomfort, fatigue or weakness, dizziness, unexplained falls or fainting. If you experience any of these symptoms suddenly or frequently, seek urgent care.

### What's going on?

A normal heart rate is between 60 and 100 beats a minute and fluctuates during the day and in response to anxiety, excitement or some medications. Heart rate speeds up during exercise and slows during sleep.

Physicians classify the many types of arrhythmias by where they originate and the type of heart rate they cause. A rate faster than 100 beats a minute is called *tachycardia* and slower than 60 beats a minute is called *bradycardia*.

For example, in *ventricular tachycardia*, abnormal impulses in one of the heart's ventricular chambers cause it to beat too fast. *Atrial fibrillation*, the most common arrhythmia, affecting 2 million Americans, refers to very fast and chaotic contracting of the heart's atrial chambers. The uncoordinated impulses cause the atria to beat so fast—300 to 400 beats a minute—they quiver. *Sinus node dysfunction* occurs in the area of the heart that serves as a natural pacemaker. When the heart's normal electrical pathways shut down or allow only intermittent signals, *heart block* (also called conduction block) occurs, which can slow heart rate at varying degrees of severity.

### Treating your arrhythmia

Not all arrhythmias require treatment, but patients need to manage arrhythmias that cause significant symptoms, increase risk for a more serious condition or impair the heart's efficiency and circulation. Treatment depends on the type and degree of the arrhythmia and may include:

- **Lifestyle measures.** Because many arrhythmias arise from underlying heart disease, doctors may recommend more exercise, an improved diet, better stress management, not smoking and limiting caffeine and alcohol as ways to reduce episodes.
- **Vagal maneuvers.** Some types of tachycardia can be treated by stimulating your vagal nerves—the part of the nervous system that regulates your heart rate—which respond by slowing



## Who's at risk?

Arrhythmias can develop when the heart becomes weakened or damaged, disrupting electrical function. Factors that contribute to arrhythmias include:

- age
- an abnormality in the heart's structure
- coronary artery disease or a previous heart attack
- thyroid problems
- certain drugs and supplements, such as some cold medications that contain pseudoephedrine and diet aids and supplements that contain ephedra, guarana or ginseng
- high blood pressure
- diabetes
- obstructive sleep apnea
- an imbalance of potassium, sodium, calcium and magnesium
- heavy alcohol consumption
- use of stimulants such as caffeine, nicotine, amphetamines and cocaine

- **Cardioversion.** This treatment uses drugs or an electrical shock to reset the heart to its regular rhythm.
- **Catheter ablation.** Catheters are threaded through blood vessels to the heart and deliver radiofrequency energy to carefully destroy (ablate) the abnormal portions of the heart causing the arrhythmia. This method is highly successful in treating tachycardia.
- **Open-heart surgery.** Cardiologists use open-heart surgery to regulate electrical impulses usually only after patients haven't responded to other treatments. Patients suffering severe coronary artery disease in addition to ventricular tachycardia may require coronary bypass to improve blood supply to the heart.

### The bottom line

It's important to tell your doctor about any symptoms of arrhythmia you experience. Even if symptoms pass quickly, your heart's ability to work may be compromised. Over time, a seemingly harmless arrhythmia could lead to a more serious condition. ♥

your heart rate. These "maneuvers" include holding your breath and straining, coughing and dunking your face in ice water.

- **Drugs.** Sodium channel blockers, beta-blockers, potassium channel blockers, calcium channel blockers and digitalis may slow or suppress tachycardia. However, these drugs may produce unwanted side effects, cause an arrhythmia to occur more frequently or produce a new arrhythmia.
- **Implantable devices.** Surgery to implant an artificial pacemaker is a common treatment for bradycardia. This device, implanted under the skin and attached to the heart, sends an electrical impulse whenever the heart rhythm slows or becomes erratic. Another device, the implantable cardioverter defibrillator, can be placed in the chest to correct an abnormally fast heartbeat.

## Cath lab

*continued from page 1*

rate information about the heart, the coronary arteries located on the surface of the heart and, depending on whether another test is done, the aorta. The development of cardiac catheterization was very important in the field of heart medicine. Twenty years ago, physicians had much less information before doing surgery. Now cardiac catheterization offers an excellent strategy for obtaining critical information before surgery or making a diagnosis. It is one of the most accurate tests in the diagnosis of coronary artery disease, and more than a million of them are done each year.

During cardiac catheterization, a thin tube called a catheter is fed through a blood vessel to a part of the body that needs to be assessed. The catheter is inserted through a very small incision made by the physician (in the groin, arm or wrist) then guided up through the blood vessel to the heart. The physician tracks the course of the catheter by watching it on a fluoroscope, which displays the blood vessels on a viewing screen. A variety of measurements are performed when the catheter is in place, then the catheter is removed. After about six hours of recovery time, most patients are free to go home. Results should be available within a matter of hours.

For more information about the cardiac services available at The Heart Center at St. Rita's, call **(419) 996-5521**. ♥

## St. Rita's hosts Cardiac Rehab Golf Scramble

The Heart Center at St. Rita's is hosting its third annual Cardiac Rehabilitation Golf Scramble at Golf @ Sugarcreek on **Thursday, August 19**.

The annual outing is for any member of the community who has had a heart attack, angioplasty, stent or open-heart surgery and has gone through or is currently participating in cardiac rehabilitation at the Medical Center.

Groups of four will be selected by the event

organizer, combining experienced players with less experienced players. The golf outing is a scramble, so the object of the game is to have fun.

If you are interested in playing, contact Dave Faulkner at The Heart Center at St. Rita's at **(419) 226-9122**. Please leave your name, phone number and your average for 18 holes of golf. ♥

## heart health news

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# It's not the heat: How humidity affects your heart

Hot weather can lead to dehydration, heat exhaustion and heat stroke, but it doesn't take soaring temperatures to pose a danger when you add humidity to the mix. The risk for these life-threatening conditions increases when the temperature rises above 70°F and the humidity registers more than 70 percent.

People with high blood pressure, heart disease, lung disease or kidney disease are most vulnerable to the effects of humid conditions, as are those over age 50 (our bodies' ability to respond to summer heat decreases as we age). Other risk factors that can affect your body's ability to cool itself include being obese; having poor circulation; following a salt-restricted diet; drinking alcohol; having inefficient sweat glands; and taking diuretics, sedatives, tranquilizers or heart or blood pressure medication.

## Exercising in humid weather

Since you generate heat during exercise, humidity can affect your heart rate when you work out, even at cooler temperatures. Here's how: Your body cools itself by sweating—but only if sweat can evaporate. In humid weather, sweat evaporates more slowly, so your body temperature continues to rise. What's more, fluid loss from sweating decreases your blood volume. So while your heart is still working to cool you off, it must also work harder and faster to get that smaller amount of blood to your working muscles. That's why it's always important to replenish the fluids you lose by drinking plenty of water while you exercise.

## Learn the warning signs

Recognize the warning signs of heat stress and take immediate action. Headache, fatigue, profuse sweating, muscle spasms or cramps, cold and clammy skin and swollen ankles and feet can mean you're getting too hot. Move to a cool or air-conditioned area, drink fluids, shower in cool water and lie down. Seek emergency medical help if symptoms don't improve quickly or if they progress to include nausea; dizziness; confusion; combativeness; warm, dry skin with no sweating; rapid pulse; high fever; or fainting.

Your best bet is to ward off heat illnesses before they occur. Pay attention to weather reports. Heat disorders can occur any time the temperature and humidity both rise above 70 or the heat index is greater than 80°F. Drink plenty of fluids, avoid caffeine and alcohol, limit activity to a cooler hour and wear light-colored clothing made of natural fabrics. ♥

## Are you heart smart?



If you want to be heart healthy, you have to be heart smart. So test your knowledge by answering true or false to the following statements. Then check the answers below to see how well you did.

1. *Women who reach menopause should take hormones to prevent heart attacks.*

T ■ F ■

2. *Following a very-low-sodium diet may raise your cholesterol.*

T ■ F ■

3. *Frequently reacting with road rage when other drivers annoy you can harm your heart.*

T ■ F ■

4. *If you think you're having a heart attack, you should take aspirin after calling for emergency medical help.*

T ■ F ■

### Answers

1. *False.* The latest research says hormone replacement therapy does not reduce the risk for a heart attack and also may increase the risk for breast cancer in postmenopausal women.

2. *False.* Following a very-low-sodium diet has not been proven to have any negative effects on cholesterol level, and it does lower blood pressure.

3. *True.* When angry, your body releases cholesterol and chemicals called catecholamines into the blood. Hostile or frequently angry people have higher levels of these, which speed the development of fatty deposits in the heart and carotid arteries.

4. *True.* Unless you're allergic or your physician has advised against it, first call for emergency medical help, then chew and swallow one adult or two baby aspirin tablets.



## How fit

## are you?

**A**re you working out enough to be truly fit? Experts say it takes 30–60 minutes of moderate to vigorous exercise three to four days a week for optimum cardiovascular benefits. Physical fitness involves several components, including aerobic (or heart and lung) fitness, strength, flexibility and body composition. To see how you measure up, try performing the following exercises. If you've been sedentary or diagnosed with a heart condition, get your doctor's OK before attempting these. And remember: These are basic guidelines. Other circumstances may affect your results. See your doctor for a personal evaluation.

### **Aerobic: One-mile walk**

Timing how fast you can walk a mile while keeping your heart rate within a target zone can be a measure of cardiovascular fitness. Your target heart-rate zone should be between 50 percent and 75 percent of your estimated maximum age-related heart rate, calculated by subtracting your age from 220. To test your fitness, grab a stopwatch and head to a local school's track. Walk a mile as quickly as you can without overexerting yourself and record your time. Find your pulse and count the number of beats in 15 seconds. Multiply by 4 to get your rate in beats per minute. Aim to improve your time while staying in the zone.

### **Strength: Push-ups**

Counting how many old-fashioned push-ups you can do is a measure of muscle strength. Position yourself facedown on the floor so your body is

straight and your weight is supported on your toes or knees. Your arms should be straight and your hands flat on the floor, shoulder-width apart. Lower your body until your chin touches the floor, keeping your back straight. Now push upward to the starting position. The more you can do, the stronger you are.

### **Flexibility: Sit-and-reach**

Good flexibility, or range of motion, helps prevent injuries. Place a yardstick on the floor and secure a 12-inch piece of tape across it at the 15-inch mark. Sit on the floor with the yardstick between your legs and the soles of your feet even with the tape, keeping them about 12 inches apart. Gently lean forward along the yardstick, reaching as far as you can. Exhale, dropping your head between your arms and hold for two seconds. The farther you can reach, the better, but don't bounce or reach to the point of pain.

### **Body composition: Waist measurement**

Body composition, which refers to how much of your weight is fat compared to lean mass (muscle, bone and other vital parts), is a better indicator of fitness than how much you weigh. Waist circumference is a common measure used to assess abdominal fat content. With a tape measure, comfortably measure your natural waist. In general, most men should have a waist circumference less than 40 inches, women less than 35 inches. ♥

## St. Rita's announces \$130 million expansion

By 2008, residents in West Central Ohio will witness a transformation. In the coming months, they will begin to see The Medical Center of the Future take shape. The \$130 million project will allow for needed expansion, a greater focus on patients and families, space for advanced technology, easier access, additional parking and a safe campus environment.

Officials have secured the needed approvals to move forward and pledge the venture will be the most significant expansion in St. Rita's 85-year history.

"Over the past five years, we've seen our services grow nearly 40 percent," says Jim Reber, president and CEO, St. Rita's Medical Center. Because of this increasing demand for high quality care and advanced technology, St. Rita's is facing serious space limitations. We believe The Medical Center of the Future will provide the amenities our patients need for a healing experience and accommodate the growth we expect to see in the future."

Many changes will take place inside and outside of the medical center. The

Lima campus will grow to encompass six city blocks; add a nine-story patient tower equipped with the most advanced technology, including high-speed internet access; and feature spacious patient and family suites. Floors will house dedicated specialty centers such as orthopedics, heart, cancer and neurology and feature multiple private lounges with a fully-equipped kitchen for families who want to remain close by.

The project will create a safe campus environment and plans call for the closing of High and Collett Streets. Patients and visitors will now enter the campus with ease from Charles Street, two blocks west of the current entrance. No longer will pedestrians have to walk across busy streets; vehicles will travel down a boulevard and passengers will enter the medical center beneath a large, all weather canopy.

As St. Rita's expands its services, it will be necessary to create additional, convenient parking as well.

For added patient convenience, an outpatient services department will be located directly off the main lobby.

Patients can quickly access all pre-admission testing, lab work, X-rays, rapid CT scanning, magnetic resonance imaging (MRI) and ultrasound. Residents have responded overwhelmingly to relocating these services into a one-stop-shop approach.

A High Street Mall and enclosed walkways will allow patients and visitors easy access to all areas of the medical center, including St. Rita's four medical office buildings. A coffee shop, pharmacy, expanded gift shop and health resource center will also be added.

"We are very excited about this project and feel it will have far-reaching impact on the greater Lima community. Most important, the project will help us meet the healthcare needs of residents close to home and, ultimately, improve people's quality of life," says Brian Smith, chief operating officer and executive vice president, St. Rita's.

St. Rita's is expected to begin initial construction west of the campus at the corner of Collett and High Streets by mid to late summer. The entire expansion is slated for completion in 2008. ♥

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