a walk in the park
Christine Goodrich made a quick recovery after minimally invasive cardiac bypass surgery

chilling out
Therapeutic hypothermia puts lives on ice while hearts heal
what’s my line?

MARK WINHELD, PRESIDENT OF THE JOHNSON CITY
CHAPTER OF MENDED HEARTS, A SUPPORT GROUP
FOR CARDIAC SURGERY PATIENTS

HOW DID YOU GET INVOLVED IN MENDED HEARTS?
I got involved when I had a quintuple bypass in 2001. I was visited by Mended Hearts volunteers before and after my surgery at Wilson Medical Center. My wife usually knows what’s good for me before I do and she thought Mended Hearts would be good for me.

WHAT DO MENDED HEARTS MEMBERS DO?
Anyone affected by heart surgery can be a Mended Hearts member, both patients and families. All members can attend meetings and provide support to families, plus act as liaisons between families and medical staffs. Meetings are also open to the public.

But the only volunteers who can visit patients are those who have had open heart surgeries themselves. We try to visit patients once before and once after their surgery, then two weeks later one of our members calls them at home to see how they are doing. You can be a member and not a volunteer, but we love it when people are both.

WHAT HAPPENS DURING MENDED HEARTS MEETINGS?
They’re a good place to trade war stories. We also have speakers on heart-related topics. We have a good time; we like being together. We share common experiences and help each other along, either with specific tips or different takes on individual experiences.

WHAT’S THE MOST REWARDING PART OF BEING A MENDED HEARTS VOLUNTEER?
Knowing that you’re making someone who may have a lot of anxiety about the procedure feel better or more reassured. Being able to answer their questions and reassure them; being living proof that there is light at the end of the tunnel after heart surgery and all the lifestyle changes.

WHAT’S YOUR ADVICE FOR PEOPLE FACING SURGERY?
It’s very often just as possible to lead a full, functional life after surgery as it was before. There will probably be changes you’ll need to make in your lifestyle. If you exercise and keep your weight down and don’t have complicating issues, you can do just about everything after treatment. Mended Hearts is there to help.

by the numbers

UNDERSTANDING HEART DISEASE RISK

HIGH CHOLESTEROL
• *100 million* adults have total cholesterol levels at or above the highest recommended level of 200 mg/dL. This represents about *45 percent* of the adult population.
• A *10 percent* decrease in total cholesterol levels (population-wide) may result in an estimated *30 percent* reduction in the incidence of coronary heart disease.

HYPERTENSION (HIGH BLOOD PRESSURE)
• *1 in 3* adults in the U.S. has high blood pressure.
• About *69 percent* of people who have a first heart attack, *77 percent* who have a first stroke, and *74 percent* with congestive heart failure have blood pressure higher than 140/90 mm Hg. Blood pressure below 120/80 mm Hg is ideal.

CURRENT SMOKING
• Smoking shortens the lives of men by an average of *13.2* years and women by an average of *14.5* years.
• Cigarette smokers are *two to four times* more likely to develop coronary heart disease, *twice* as likely to have a stroke and more than *10 times* as likely to develop peripheral vascular disease than non-smokers.

DIABETES
• An estimated *20.8 million* Americans have diabetes, but about *30 percent* don’t know they have it.
• People with diabetes are *two to four times* as likely as people without diabetes to die of heart disease. At least *65 percent* of people with diabetes die of some form of heart disease or stroke.
time is muscle

DIAGNOSING HEART ATTACKS REMOTELY FOR FASTER TREATMENT

A speedy door-to-balloon time — the amount of time between when a patient arrives in an emergency department and when angioplasty to open the artery is performed — is critical for saving heart attack patients.

United Health Services is now shaving valuable minutes off door-to-balloon time for patients undergoing a type of heart attack called ST elevation myocardial infarction (STEMI). Ambulances serving Wilson Medical Center were outfitted with the LifeNet system in January 2010, allowing cardiac evaluation to begin on the road. Wilson is the only hospital in the area to adopt this technology.

When a heart attack is suspected, paramedics perform a 12-lead electrocardiogram (ECG) while the patient is en route to the hospital and transmit the results to the emergency department over a secure Internet connection. Off-site cardiologists can also review the test results on their Internet-enabled cell phones. Cardiologists and emergency medicine physicians evaluate the data and, when STEMI is diagnosed, activate the catheterization lab before the patient arrives. Treatment can then be started as soon as the patient enters the hospital, day or night.

“There’s no doubt that the quicker the patient gets the artery opened and blood flow restored, the better the chance of survival,” says Nicholas Stamato, MD, of Cardiology Associates. “When we speed up the process, there is less permanent damage to the muscle.”

BEAT THE CLOCK … The recommended door-to-balloon time is 90 minutes or less. We beat this goal 100 percent of the time, with a 2009 median average of 74 minutes.

we have your heart

ADVANCES IN HEART CARE ARE AMAZING

During the past year, Greater Binghamton has seen advances in heart care nearly as exciting as the launching of open heart surgery in the 1980s. The recent strides we have made at United Health Services in the cardiovascular field are nothing short of amazing. Let me take a moment to describe a few of them to you.

► In December 2009, doctors here became the first in Broome County to use a new surgical technique for correcting an abnormal heartbeat. The cardiologist’s ability to make a small puncture in the septum, which links the two upper chambers of the heart, opens a new avenue for a number of procedures, including transeptal ablation to correct atrial fibrillation, a disorder common to 2.2 million Americans.

► We have begun using new Web-based technology to speed up the time it takes certain heart attack patients to receive lifesaving treatment in the Cardiac Catheterization Laboratory at Wilson Medical Center. The new LifeNet system uses specialized computer software to transmit a 12-lead electrocardiogram directly to the Emergency Room. It’s all done using a secure Internet connection.

► This past fall we became the only local hospital to offer an advanced, non-invasive cooling therapy called therapeutic hypothermia to help those suffering cardiac arrest. The cardiac care team at Wilson uses a temperature management system to gradually cool the person’s whole body to 91 to 92 degrees. Many patients who receive this therapy suffer less severe damage to their cardiovascular system.

► Surgeons on our team have begun using a technique that allows them to operate on the heart through two small incisions. Because much of the procedure is done through a two- to three-inch cut on the side of the body, there is no need to open the chest cavity as in a traditional operation. The new method uses a heart positioner and stabilizer to allow surgery while the heart is still beating, and with much less trauma to the body.

What do all of these developments mean to you, the health care consumer? First and foremost, they mean you don’t have to leave Greater Binghamton to receive the full spectrum of heart care services, made possible by the facilities, technology and expert medical staff our system affords. It also means that modern medicine and surgery are continually improving the way heart care is provided, with less surgical invasion of the body, less blood loss and scarring, faster healing and better outcomes.

We at United Health Services are proud to be on the leading edge of these advances and grateful that we are able to provide these services to you and your family. It’s comforting to know that this level of quality is right here — when nothing but the best will do.

Matthew J. Salanger
President and CEO
United Health Services
In the movies, heart attacks are obvious, accompanied by clutching chest pain that brings the victim to his or her knees. In real life, the signs are often more subtle.

This year, 785,000 Americans will have their first heart attack and 470,000 will have a recurrent attack. Many of these victims may not realize they are having a heart attack and put off seeking treatment until it's too late to save their lives.

The cooling unit is made up of gel pads that cover 40 percent of the body and circulate chilled water.
chilling out

THERAPEUTIC HYPOTHERMIA CAN BE A LIFESAVER

Cardiac arrest patients rushed to Wilson Medical Center have a new weapon on their side — induced cardiac hypothermia. Once a patient arrives in the emergency department, doctors and nurses apply specially-designed cold gel pads to the patient’s torso to reduce the body temperature to 91 or 92 degrees.

While it may sound strange, it’s actually a state-of-the-art treatment that could save the patient’s life or lessen the damage caused by cardiac arrest.

WHY THE BIG CHILL?

This fall, Wilson Medical Center became the only local hospital to offer this advanced, non-invasive cooling therapy to patients who are brought unconscious into the ED following an out-of-hospital cardiac arrest.

Intentionally induced hypothermia, the value of which was established by a series of studies that began in the 1950s, helps to reduce the chance of further damage to the heart and other tissue due to ischemia. Ischemia is an insufficient supply of blood, and therefore oxygen, to an organ or tissue of the body. Unchecked, ischemia leads to the death of cells and the loss of function in the affected part of the body. Controlled hypothermia can greatly reduce the number of cells that are destroyed in the aftermath of cardiac arrest.

“Patients who have been resuscitated from cardiac arrest by CPR or by defibrillator shock and arrive at the hospital in a coma can benefit from therapeutic hypothermia,” says Nicholas J. Stamato, MD, a cardiologist with Cardiology Associates and a member of United Health Services’ medical staff. “The cooling process slows down the metabolism and preserves neurological functions.”

NEW TECHNOLOGY

Physicians at Wilson Medical Center induce hypothermia by using the Arctic Sun medical device to provide rapid, controlled, automated cooling. The gel pads circulate temperature-controlled water, covering 40 percent of the body. They reduce temperature at a steady pace and enable doctors and nurses to cool the body with great accuracy. Usually, the patient is kept cool for about 24 hours before the temperature of the water in the pads is slowly increased to bring the patient’s body temperature back to normal.

Therapeutic hypothermia is not a complicated procedure, but it demands precision teamwork and must be administered carefully. Paramedics, ED personnel and coronary care unit personnel are involved in a coordinated way, as is the nursing staff. The precision of this method allows the body to cool without shivering.

“We are very encouraged by the difference therapeutic hypothermia is making,” concludes Dr. Stamato.

Symptoms include:
1. DISCOMFORT IN THE CENTER OF THE CHEST that lasts for more than a few minutes or goes away and comes back. It may feel like pressure, squeezing, fullness or pain.
2. DISCOMFORT IN THE UPPER BODY, such as an ache or tingling feeling in the arms, back, neck, jaw or stomach.
3. SHORTNESS OF BREATH
4. COLD SWEAT
5. NAUSEA and/or vomiting
6. LIGHTEADEDNESS, fatigue and/or fainting

GET HELP QUICK … Every 34 seconds, someone in America has a heart attack. If you notice any of these symptoms, call 911 right away. Paramedics can begin evaluation en route to the hospital so treatment can begin immediately upon your arrival. See Time Is Muscle on page 3.

BE A LIFESAVER … Eighty percent of sudden cardiac arrests happen at home. Learn CPR so you can save a loved one. Visit www.uhs.net or call 763-5092 to find out about CPR classes at Stay Healthy in the Oakdale Mall or 337-4079 for classes at Chenango Memorial Hospital.
At the age of 47, Christine Goodrich was no stranger to cardiovascular disease. She had a genetic propensity for cardiovascular disease that had caused her to suffer mini strokes a few years earlier. Her cholesterol was high. She had watched her father and aunts battle heart attacks and blocked arteries. But when the symptoms of her heart disease began, they were so vague she ignored them at first.

“Basically, it was a pressure in my chest and it would make my left arm feel a little lazy and there would be little twinges under my chin,” she says. “Because I didn’t realize what some of the symptoms were at first, I went six months without seeing a doctor. They were off and on but got more frequent and shortness of breath started coming later.”

After a stress test resulted in a diagnosis of significant blockages in two cardiac arteries, Christine underwent cardiac catheterization. Three months later, scar tissue formed in the arteries, causing the symptoms to come back. The procedure was repeated. The second catheterization failed as well, and it became apparent that Christine would need double bypass surgery to reopen the blocked arteries. The prospect of open heart surgery scared her.

Her cardiologist presented her case to other surgeons in the area, looking for someone who could fix her blocked arteries less invasively than with traditional open bypass surgery. Kenneth Wong, MD, a cardiovascular surgeon at Wilson Medical Center, had the solution and agreed to take her case. At Christine’s first appointment with Dr. Wong, he explained all the advantages of minimally invasive cardiac bypass to her.

“Dr. Wong told me the recovery time would be shorter, I would not have the ventilating tube in as long and they would not have to stop my heart to do the procedure,” says Christine. “He could open me up and look right at the back of the heart, where my problem was. He didn’t have to take it out and flip it over. And I wouldn’t have to be on Coumadin, just baby aspirin and Plavix.”

Dr. Wong performs minimally invasive cardiac bypass surgeries using a 2–3-inch incision on the patient’s side. Instead of cutting through the breast bone, he spreads the patient’s ribs to give him access to the heart. Unlike with other types of minimally invasive procedures, minimally invasive cardiac bypass does not require a camera to be inserted into the patient. Dr. Wong is able to view the surgical field directly.

“The advantage of minimally invasive surgery is that we do not open the sternum, so the patients experience less pain and bleeding and save a day or two in the hospital stay,” says Dr. Wong. “Patients feel a little better and recover a little sooner.”

Christine had her surgery on a Monday and was home by Friday. Three weeks later, she felt well enough to do some laundry and housework, but realized later she wasn’t ready for such strenuous activity. Six weeks after her surgery she was feeling like herself again and was ready to go back to work the next week. Today, she’s climbing stairs for exercise and watching what she eats. She’s looking forward to getting back on her motorcycle and ATV in the summer. Her incision is barely noticeable. “You almost can’t even see it unless you are looking for it,” she says.

While Christine hopes she never has to go through heart surgery again, she would turn to Dr. Wong if the need arose in the future. “I thought Dr. Wong was great. He is very serious, but he does joke,” she says. “He has a very good bedside manner and he listens to you.”
A blocked artery is bypassed with a vessel taken from another part of your body. This allows blood to flow freely to your heart again.

**WHO IS A CANDIDATE?**

According to Dr. Wong, the best patients for minimally invasive cardiac bypass are those who need a single bypass to the left anterior descending artery, located in the front of the heart. It may also be an option for patients like Christine, who need single or double bypasses to certain other vessels.

Patients who need several bypasses are not good candidates for the minimally invasive technique. However, the procedure can be combined with angioplasty and stenting. “Some patients have multiple vessel disease and we can do a bypass on the front artery and the interventional cardiologist can stent and do angioplasty in the back artery. This opens another option for patients,” said Dr. Wong. “This can be good for patients who are at a high risk in open heart surgery.”

**HOW IT WORKS**

1. A 2-3 inch incision is made just under the patient’s breast, to the left side.
2. A keyhole incision is made below the breastbone to insert a positioning device.
3. Another keyhole incision is made on the side of the rib cage to insert a stabilizer.
4. The ribs at the main incision site are spread to allow visual and instrument access to the heart.
5. A portion of a healthy vessel is harvested, often from the internal mammary artery or a vein from the leg.
6. The blocked cardiac vessel is removed and the healthy vessel is sewn in its place.
matters of the heart

CARDIAC REHABILITATION PROGRAMS GIVE PATIENTS NEW LEASES ON LIFE

Early one morning in April 2008, Dale Lambrecht awoke with what he thought was nothing more than bad indigestion. His chest pain persisted, though, so his wife drove him from their home near Walton to Delaware Valley Hospital.

While there, Dale went into cardiac arrest, and his heart stopped beating. Acting quickly, hospital staff was able to restart his heart with a defibrillator before transferring him by helicopter to Wilson Medical Center, where physicians successfully performed an emergency cardiac catheterization and angioplasty to repair a blocked artery.

After six days of recovery, Dale, then 42, returned home and was enrolled in the outpatient cardiac rehabilitation program at Delaware Valley Hospital.

Working under the supervision of specially-trained exercise physiologists and cardiovascular clinical nurses, UHS cardiac rehab participants usually attend three one-hour sessions each week for eight to 12 weeks. Dale, who works as an auctioneer, attended two sessions per week and extended the duration of his on-site rehabilitation in order to have more flexibility in his work schedule.

Regardless of how they’re scheduled, Dale says, completing 24 to 36 sessions is transformative. “The rehabilitation process was very helpful because I was so weak. They bring you along gradually, starting you out with only so much time and speed, before they progressively pump up the difficulty,” he recalls.

Each session includes a warm-up, individualized exercises and strength training using specialized equipment, heart rhythm and blood pressure monitoring, and a post-exercise cool-down. The benefits of the program, beyond improved physical fitness and weight loss, include an awareness of cardiac responses to exercise, a decreased dependence on certain medications and more self-confidence.

Dale’s positive rehab experience not only taught him to make healthier choices, like kicking his smoking habit, but it also gave him a fresh outlook. He says, “Your philosophy on life will change a lot, I tell you. Things you were going to put off and do later, you learn to do now, once you’ve already died once.”