

Getting back on track after a heart attack



By Dilys Burke

Barry Hershey was not your typical heart attack risk. He was an athlete who exercised regularly, and ate a healthy, vegan diet.

So when he started experiencing episodes of chest pain and shortness of breath during basketball games, he dismissed it as nothing serious. Moreover, the pain tended to subside as he continued to play, which is very atypical of the pattern of coronary artery disease symptoms. However, in May of last year, when he mentioned his symptoms to his doctor during a conversation about another matter, he was advised him to go to the hospital immediately. Not really believing he had much to worry about, Barry went to the hospital, where blood tests and an EKG were performed. The EKG was normal, but blood tests measuring a substance called troponin suggested that he may be having a heart attack. A stress test and an angiogram confirmed this. Much to his surprise, Barry had severe blockages in his coronary arteries that required quintuple bypass surgery.

The surgery went smoothly, but bypass surgery is a major procedure that involves a significant period of recovery. Realizing that he had narrowly missed a potentially catastrophic event, Barry was apprehensive about becoming active again. “I was afraid to do much more than take a walk,” he says. His healthcare providers had suggested he enroll in the cardiac rehabilitation program at Emerson Hospital. Initially reluctant to do so – the thought of making the time commitment and facing others with the same condition seemed daunting to him – he

decided to follow their advice. As it turned out, attending the cardiac rehabilitation program proved to be of enormous benefit. “Being able to exercise while under medical supervision and having health professionals right there to answer questions or ease concerns helped me to get over my fear of exercising,” reports Barry. In addition, though he was knowledgeable about healthy eating, he found that the nutritional counseling was very educational and taught him more ways to ensure that he was eating a heart healthy diet. The stress management counseling also proved valuable; Barry has incorporated many of the stress reducing methods into his life. Of equal importance, Barry found much benefit from being among others how had been through similar experiences. “When I came in, I was the ‘new kid on the block’, and people who had been in the program a while helped and encouraged me.” In turn, once Barry had been participating for a while, he found himself encouraging and coaching newcomers to the program. “Overall, there was a lot of support, and even a lot of humor shared among the patients there.” Today, Barry is on back in his game, exercising 6 days a week, keeping his diet and weight in check, and meditating daily. “Though I was initially intent on going through the recovery process on my own, I am very glad that I decided to participate in the program.”

Like Barry, Robert Watson, a retired pediatric dentist, was a “picture of good health”, with good cholesterol levels, a normal blood pressure, and no history of cardiac disease. Then one day, while visiting his grandchildren in Vermont, he experienced an episode of chest pain, dizziness, and sweats. Having been in a medical profession, he was aware that these symptoms spelled trouble and got himself to a nearby hospital. After initial tests indicated

that he may be having a heart attack, Robert was transferred to a larger facility, where an angiogram showed severe coronary artery blockage. Doctors decided that a quadruple bypass procedure was the best course of treatment. Even under the best of circumstances, recovery from bypass surgery can be arduous, but in Robert’s case, his recovery was complicated by the fact that he had a heart attack during the procedure, then bleed into his heart chamber. As a result, he underwent additional surgery to remove the blood. About eight days later, while recovering at a rehabilitation hospital in Woburn, MA, he began to feel very weak. A blood test showed that he was profoundly anemic, and after being transferred to Massachusetts General Hospital, he was diagnosed with a perforated gastric ulcer, the result of the trauma of his previous surgery. “With all of the complications, I lost a lot of strength,” Robert says, “And I really had to work to get it back.”

He can’t imagine how he would have been able to recover and regain strength without the help of a cardiac rehabilitation program. Robert attended a program at the Lahey Clinic where, like Barry, he participated in monitored exercise, nutritional counseling and stress reduction programs. He found all aspects of the program to be invaluable to his recovery. Even being as educated as he was about medicine, he learned a lot about stress reduction and nutrition that have helped him change his living habits for the better. There is no question in his mind that participating in a cardiac rehabilitation program provides essential, life-long benefits. “If you don’t take what you learn in one of these programs and apply the practices long term, you are asking for another heart attack.” Though the complications of his surgery prolonged his recovery, thanks to the program, he has regained most of his strength and is maintaining a heart healthy lifestyle that will help protect him from another heart attack.

For more information...

If you or someone you know has suffered a heart attack or near-heart attack and you are interested in learning more about Emerson’s Cardiac Rehabilitation program, call 978-287-3732.

“Even if a cardiac rehabilitation program has not been recommended, people can seek out a program on their own... all they need is a referral from their physician,” says Ginny Dow.

Information about other programs throughout the region is also available at the Massachusetts Association for Cardiovascular & Pulmonary Rehabilitation website at <http://www.macvpr.org/search.asp>. For information on programs nationwide, visit the American Association for Cardiovascular & Pulmonary Rehabilitation website at <http://www.aacvpr.org>. A directory of programs available throughout the United States is available in the Resources section of the website.

THE IMPORTANCE OF CARDIAC REHABILITATION

According to the most recent statistics from the American Heart Association, over 80 million Americans suffer from cardiovascular disease, 8 million of whom will have a heart attack within the year. Though heart attacks are all too common and remain the number one cause of adult illness and death in the country, there is good news: More people are surviving heart attacks than ever before. In fact, recent estimates show that deaths due to heart attacks are down by more than 25% since 1999. This is due not only to marked advances in procedures and drugs for treating heart attacks, but also to improved practice guidelines that encourage rapid diagnosis and deployment of the most effective intervention once a heart attack victim arrives at the hospital.

While increased survival following a heart attack is certainly something to celebrate, the fact is, surviving a heart attack or near-heart attack is only the first step in a complex, sometimes difficult recovery process. Whether a coronary event has been successfully treated with Coronary Artery Bypass Graft (CABG) surgery, angioplasty, or with medications alone, one does not simply go home and resume life as usual. In order to minimize disability and the chances of suffering another coronary event, heart attack survivors often have to make profound changes in their lives that will help them achieve optimal health.

This is where cardiac rehabilitation programs can be very helpful. Many people assume that such programs consist exclusively of monitored exercise to improve physical fit-



Cardiac Rehab – Emerson Team



ness, but this is not the case. According to the most current recommendations of the American Heart Association, cardiac rehabilitation programs should take a comprehensive approach to recovery and offer services that address all risk factors associated with cardiovascular disease.

A COMPREHENSIVE APPROACH

There is a general perception that people at risk of a heart attack are sedentary couch potatoes or are stuck behind a desk all day and unable to exercise and stay fit. But there are a number of other important independent risk factors for cardiovascular disease and heart attack that should be addressed to prevent future coronary events. They include:

- Preexisting “high risk” conditions: Few people in peak condition and health have a heart attack out of the blue. Aware of it or not, most heart attack victims have certain “high risk” conditions – such as high blood pressure, atherosclerosis, diabetes, obesity, or high cholesterol – that predispose them to cardiovascular disease and heart attack. Even those who are otherwise in good physical condition are at higher risk of a heart attack when they have one or more of these underlying conditions. Once a person has had a heart attack or near-heart attack, it is pivotal to identify which high-risk conditions exist and then take the best steps to manage them.

- Diet and nutrition: Most of the risk factors for the conditions just mentioned are influenced by diet and can be modified by addressing poor dietary habits, including over-eating or the consumption of too much dietary fat, salt, and carbohydrate- or sugar-laden foods.

WHAT THE EVIDENCE SHOWS

Research shows that, though cardiac rehabilitation programs are strongly recommended by the American Heart Association and American College of Cardiology, only about one-third of heart attack survivors take advantage of these services. Use among women is notably lower than among men. Among the suggested reasons why these programs are under utilized is lack of awareness of their benefits.

To Ginny Dow RN, BSN, BC, manager of the cardiac rehabilitation program at Emerson Hospital, the benefits are clear: “Most people leave the program feeling more confident... they have lost weight and inches off their waist, are able to manage stress better. People also benefit from the emotional support and group atmosphere; they enjoy meeting others with the same problem and often help each other out.”

Ginny Dow’s observations are not just anecdotal, they are substantiated by a number of formal studies documenting the positive impact of cardiac rehabilitation programs. For example, in a recent study reported in the medical journal *Chest*, patients age 65 or over who participated in a cardiac rehabilitation program increased their exercise capacity by an average of 34%. Notable increases in high-density lipoprotein (HDL) levels (the “good” fat) and improvements in the ratio of HDL to LDL were also observed, along with statistically significant decreases in body weight, percentage of body fat, and fasting blood sugar levels. Just as important, results showed significant improvements in psychological parameters, including anxiety, depression, and levels of hostility. Overall quality of life was also shown to improve following participation in a cardiac rehabilitation program.

The benefits shown in this and other studies emphasize the importance of participating in a cardiac rehabilitation program, either after surviving a heart attack or near-heart attack, or after being diagnosed with severe cardiovascular disease. In addition to preventing a first or second heart attack, participation can help improve a person’s overall physical fitness and emotional well being, leading to a healthier, happier life.

Helpful resources:

Information about cardiovascular disease, heart attack, and cardiac rehabilitation programs is available through these organizations and their websites:

American Association of Cardiovascular & Pulmonary Rehabilitation – www.aacvpr.org -- A nationwide clearinghouse of information on cardiac rehabilitation programs throughout the U.S.

American Heart Association – www.heart.org -- Provides a vast array of helpful information on heart disease, heart attack and cardiac rehabilitation programs

Massachusetts Association of Cardiovascular & Pulmonary Rehabilitation – www.macvpr.org -- A statewide clearing house of information about cardiac rehabilitation programs throughout Massachusetts.

National Heart, Lung, Blood Institute – www.nhlbi.nih.gov -- The National Institute of Health’s informational website on diseases of the heart, lung, and blood.

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•**Tobacco smoking:** Smoking is directly linked to high blood pressure and cardiovascular disease, two important harbingers to heart attack. Quitting smoking is essential to lowering the risk of a first or second heart attack, as well as a host of other diseases, including lung cancer, emphysema, and chronic obstructive pulmonary disease (COPD).

•**Genetics:** A predisposition to coronary artery disease or heart attacks tends to run in families. People who have family members with coronary artery disease are at higher risk of having the condition themselves.

•**Psychosocial issues:** The impact of social and emotional factors on cardiovascular disease and recovery from heart attack cannot be underestimated. In the entertainment media, heart attack victims are often characterized as people who are chronically stressed and “ready to pop”. Unfortunately, this is not just a stereotype; studies substantiate that chronic stress and anxiety correlate with a higher rate of heart attack. Depression has also been linked to a higher risk of heart attack. Compounding the problem is the fact that depression and anxiety over when and how to become active again are common following a heart attack. Experts agree that it is important to identify emotional and social factors that may have contributed to a patient’s heart attack – or that may have resulted from having a heart attack – so they can be addressed.

The American Heart Association emphasizes the need to take a comprehensive approach to cardiac rehabilitation. Ginny Dow, RN, BSN, BC, manager of the cardiac rehabilitation program at Emerson Hospital in Concord, MA, agrees that a multi-faceted approach to rehabilitation is crucial. “Our program, like many others, involves a team of specialists and offers program components to help people overcome all risk factors that may have contributed to their condition, as well the emotional and social issues that people face after having had a heart attack or cardiac surgery.”

WHAT TO EXPECT FROM CARDIAC REHAB

If a cardiac rehabilitation program addresses all of the factors just discussed, what does participation in a cardiac rehabilitation entail? What are the end benefits?

According to Ginny Dow, the program at Emerson Hospital consists of three weekly sessions that are an hour and a half long. To accommodate schedules for working adults, early morning and late afternoon/evening sessions are available.

All individuals who participate in the program undergo an initial assessment to determine level of physical fitness and nutritional status, and to identify any medical, emotional, or social issues that may need attention in order to assure optimal recovery.

Following assessment, participants are “assigned” a personalized program that includes:

- Ongoing medical monitoring and management by Dr. Steven Herson, board certified cardiologist and founder of the program, as well as a team of registered nurses who specialize in cardiac care.
- An individualized exercise program overseen by a physical therapist and exercise physiologist.



A personalized nutrition and exercise plan are part of cardiac rehab.

- Stress management workshops that include advice about relieving stress and instruction on meditation.
- Group support sessions run by a licensed social worker to help participants deal with emotional and social issues that are common following a heart attack or cardiac procedures.
- Educational sessions that provide important information about the underlying causes of heart disease and the role of diet and lifestyle in causing – and recovering from – a heart attack and/or cardiovascular surgery.
- Nutritional counseling by a certified dietician.
- Smoking cessation counseling.

Studies show that participation in a 3- to 6-month program can effectively mitigate measurable risk factors. Insurance plans generally cover 3-month programs. The program at Emerson runs for 12 weeks. However for participants who feel they could use a longer period of rehabilitation, Emerson offers a once-a-week maintenance program that people can participate in at their own expense for as long as they feel they need to.

WHO CAN BENEFIT?

Cardiac rehabilitation programs are recommended for anyone who has suffered from a heart attack or near-heart attack, no matter what sex, how young or old, or what other conditions or lifestyle issues a person has. Nobody is too unfit or fit to benefit.

“We recently had a participant in our program who ran several marathons and had a heart attack during one of his runs. Clearly his level of physical fitness was not an issue but

it turned out his diet was less than ideal,” Says Ginny Dow. After participating in the program at Emerson, he was able to identify and address his own “high risk” issues. He was also able to train for and run in the 2008 Boston Marathon.

On the other hand, some participants enter the program never having worked out and are unable to imagine becoming fit at this stage of life. Yet, through an individualized and monitored exercise regimen, even very elderly, frail people can improve their level of fitness, while decreasing their cardiovascular risk profile.

In addition to heart attack survivors, cardiac rehabilitation programs are also recommended for people with severe cardiovascular disease who have had coronary artery bypass surgery or angioplasty procedures (with or without stent placement), and those who have had valve replacement surgery.

AN OUNCE OF PREVENTION...

No expert would argue with the fact that the best type of heart attack is the one that is prevented in the first place. While it is well established that a cardiac rehabilitation program can aid in the recovery of heart attack survivors, what about those who are at high risk, but have not yet suffered from a heart attack?

According to Ginny Dow, Emerson Hospital has recently established a prevention program for people who have not yet had a heart attack, but have at least three of the following risk factors:

- ❶ A waistline that measures greater than 40 inches in men and greater than 35 inches in women
- ❷ Fasting blood glucose levels over 100
- ❸ Triglycerides levels of 150 or higher
- ❹ HDL levels of less than 40 for men and less than 50 for women
- ❺ Systolic blood pressure reading over 130 and diastolic reading over 85
- ❻ Type II diabetes

“People who have three out of five of these risk factors have what is referred to as metabolic syndrome. This syndrome puts a person at very high risk of cardiovascular disease and heart attack. We developed this program to help people lower the risks by modifying the risk factors,” Ginny explains.

Like the cardiac rehabilitation program at Emerson Hospital, the Metabolic Syndrome Prevention Program runs for 12 weeks and focuses not only on exercise or diet but also on social, emotional, and lifestyle issues.

Although insurance may not cover these services, it is modestly priced at \$400.00 for the entire program. “If this seems prohibitive to some people, I like to remind them that it comes to only about \$35.00 dollars a week, which is almost the same as the copay they would pay if they were to receive insurance coverage,” says Ginny Dow. “If the program can help a person mitigate their risks and prevent a potentially fatal heart attack, then this small investment is more than worth it.”