Questions To Ask When You Need Heart Surgery

Making sure your surgeon utilizes cutting-edge technology

If you have been told you need heart surgery, the questions you face may seem quite daunting. Educating yourself about specialized surgical procedures and the latest technology could provide great comfort and a sense of empowerment in what may seem like an otherwise helpless situation.

Understanding that the advances in medical technology over the years have dramatically increased the changes for survival of a cardiac incident – and that these procedures are practiced successfully each day in Buffalo – should help ease the anxiety surrounding a major surgery.

Consider the following questions when selecting the surgeon who will perform your heart surgery:

Q: Is the potential surgeon certified by the American Board of Thoracic Surgery and is his/her certification current?

The American Board of Thoracic Surgery, created in 1948, provides a certificate that declares the surgeon to have successfully fulfilled the requirements of education and training for the practice of surgery in the chest and the heart. This certification needs to be renewed every ten years and there are additional requirements of continuing education and an examination that need to be completed.
At SURGXL, our surgeon was first certified in 1981 and has successfully recertified in 1989 and 2001.

Q: How many heart surgeries does your surgeon candidate do in a year?

The accepted number of heart surgeries required for maintenance of current competence and skill is at least 200 cases a year.
At SURGXL, we have exceeded this number for years.

Q: What is the surgeon's mortality statistic for coronary bypass surgery?

At SURGXL, our mortality is less then 2% and this includes many very "high risk" cases. Mortality statistics are published by the New York State Department of health and can be found at www.health.state.ny.us/nysdoh/heart/pdf/2001-2003_cabg.pdf

Q: If you need coronary bypass surgery, will the surgeon accomplish this "off pump"?

It is generally accepted that when the heart lung machine (pump) is used to do heart surgery there is an increased risk of brain damage and other complications, such as excessive bleeding and other organ system failures. In the past decade, new technologies have made it easier to do coronary bypass surgery without using the heart lung machine. Specialized surgeons have perfected the “off pump” technique.
At SURGXL, over 90% of the coronary bypass procedures are done "off pump," and have been accomplished in this way for the past several years.

Q: If the surgeon plans to use veins for the bypass, where will they be taken from?

At SURGXL, we use a "minimally invasive" vein harvest technique that consists of a small video camera that is inserted through a tiny incision at the level of your knee. With this technique, the vein harvest is only the length needed for the bypass. We accomplish this over 97% of the time, thus avoiding those long cuts in the legs which can be so much trouble post-operatively.

Q: What percent of coronary bypass procedures does the surgeon use an artery (as opposed to a vein) for the bypass conduit?

It is generally accepted that the internal thoracic artery (from inside the chest) is the bypass conduit of choice because its use is directly related to the longer expected survival time after the surgery.
At SURGXL, we use one or more ITA's in over 86% of the cases.

Q: Will the surgeon use a microscope for coronary bypass surgery?

Because creating a new connection for a bypass to a coronary artery is like “sewing together two pieces of wet spaghetti,” optical magnification is crucial. The microscope provides perfect visualization of the arteries, and allows for a connection to be constructed in the safest possible manner.
Use of the microscope during coronary bypass is a highly-specialized technique. At SURGXL, we use a high-powered operating microscope that allows us to magnify the surgical connection up to 20 times its size. The microscope also provides direct lighting and greater comfort for the surgeon. There is no question, “if you see it better, you can do it better.”

Q: Will the surgeon employ “warm heart” surgery?

When open heart surgery was first attempted in the 1960’s, the patient and his heart were cooled as a safety measure. Living tissues require less oxygen when

they are cooled, as compared to normal body temperature, or normothermia. Because the pioneers of heart surgery had to interrupt the flow of blood to the heart muscle during surgery, the delivery of blood below normal body temperature, or hypothermia, was necessary to protect the heart from injury.

At SURGXL, we employ a technique that allows us to continuously feed the heart warm blood throughout the surgery. Because of this technique, termed warm continuous cardioplegia, we can protect the heart by the uninterrupted infusion of warm blood. Potential side effects of hypothermia, such as cellular edema and arrhythmias, are significantly reduced using the “warm heart” technique.

Q: How long will the operation take, and how many days will I be in the hospital?

In general, the length of time in the operating room will be determined by the complexity of the procedure to be undertaken. At SURGXL, we have been known to complete a single coronary bypass in 37 minutes - from skin incision to skin closure (skin-to-skin time). However, most of our cardiac surgeries average two and a half hours in the operating room (OR Time).
The recovery time in the hospital will also vary according to the complexity of the surgery. We average 4.7 days hospital length of stay for all coronary bypass procedures.

Q: If you are to have heart valve surgery, can this be done through a "minimally invasive" approach?

Most heart surgery is done with an incision that goes right down the middle of your chest. This is called a mediansternotomy because it divides the sternum, or breast bone, in half. Recent advances in applied technology have made it possible to use a much smaller incision going through only one quarter of the breast bone or even between the ribs, concealing the scar under the breast. This is usually less painful and more cosmetic.
At SURGXL, we specialize in these approaches for valve heart surgery and use them whenever possible.

Q: I was told that I am not a candidate for coronary bypass, but I continue to have chest pain when I exert myself. What else can I do?

There are circumstances when coronary bypass cannot be done for many and varied reasons, and management of the patient’s symptoms becomes difficult with medication only.
At SURGXL, we use Transmyocardial Laser Revascularization (TMR) in these cases, and often as an adjunct to coronary bypass. This consists of using a laser probe to bore holes through the heart muscle, creating a grid of channels that will allow for the formation of new blood vessels that distribute more blood to the heart muscle - thus getting rid of chest pain or angina.

Want to learn more?
Additional medical information pertaining to coronary bypass, heart valve surgery, aortic surgery and VATS surgery are available at www.surgxl.com.