



HEART SURGERY: BEFORE YOUR HEART SURGERY

ABOUT HEART SURGERY

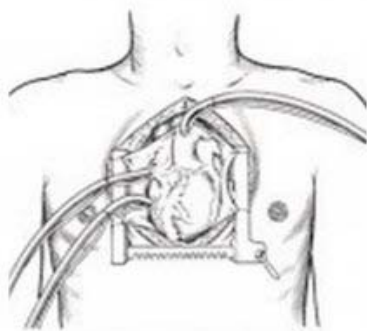
The term “heart surgery” includes surgery on the heart itself as well as procedures done on a special group of blood vessels called the great blood vessels. The great blood vessels include the aorta (the main artery that carries blood away from your heart), the pulmonary artery (the artery that carries blood from your heart to your lungs) and the coronary arteries (the arteries that cover your heart and supply it with blood).

Traditional Open Heart Surgery

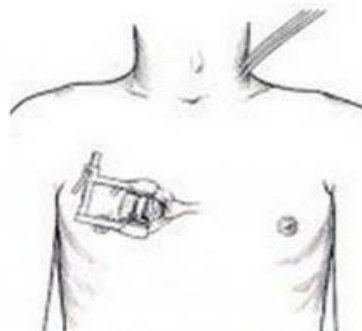
Open heart surgery means that the chest is opened and surgery is performed on either the heart or the valves, arteries or other structures in the heart. The term "open" refers to the chest, not the heart itself. The heart may or may not be opened, depending on the type of surgery. In most cases, your doctor will get to your heart by making an incision (cut) through your breastbone. A special machine called a heart-lung machine (described in another section of this packet) is used to keep your blood pumping through your body during surgery. Types of open heart surgeries include heart valve repair and replacement, coronary bypass, aortic aneurysms and surgeries to repair heart defects that developed at birth (congenital heart defects).

Minimally Invasive Heart Surgery (using small cuts)

Certain heart surgeries are done using what is called a minimally invasive approach. This means that your surgery will be done using a small incision (cut) on the right side of your chest instead of the incision described above that goes through your breastbone. The incision will be between 3 and 5 inches long. The exact location depends on the type of surgery you are having. A special machine called a heart-lung machine (described in another section of this packet) is used to keep your blood pumping through your body during surgery. Heart valve repair and replacement, and surgeries to repair heart defects that developed at birth (congenital heart defects) can be done as minimally invasive surgery. It is important to realize that these are the same surgeries that are done when the chest is open. They are just being done through a small incision.



Traditional Open Heart Surgery



Minimally Invasive Heart Surgery



Heart-Lung Machine

The heart-lung machine takes over the function of the heart and lungs for the time during your surgery. Plastic tubes carry blood from the body to the heart-lung machine. The machine gets the blood to the right temperature, removes the carbon dioxide and adds oxygen just like your lungs would usually do. The machine then pumps the blood back to your body just like your heart would usually do. This machine (also called a bypass machine or pump) allows your heart to stay dry and still during surgery. This means that heart surgery can be performed safely and with very few complications. The machine is removed when your heart and lungs begin working on their own again.

GETTING READY FOR YOUR HEART SURGERY

Your Healthcare Team

Your healthcare team includes the:

- **Cardiac surgeon:** a surgeon who specializes in operating on the heart. Your cardiac surgeon will work closely with your cardiologist to supervise your care and your plan for treatment and discharge.
- **Cardiologist:** a doctor who specializes in treating heart disorders. Your cardiologist will work closely with your cardiac surgeon to supervise your care and your plan for treatment and discharge.
- **Anesthesiologist:** a doctor who specializes in the use of medicines to help with pain relief and control. This is the doctor who will give you the medicine that will put you to sleep during your surgery.
- **Hospital staff physicians:** You may receive care from residents, fellows and medical students who work under your doctor's supervision. Residents and fellows can answer questions about your treatment plan.
- **Nurse practitioners (NPs):** are registered nurses with a Master's degree in Nursing and an additional license. NPs work closely with your surgeon to oversee your care. They will teach you how to take care of yourself when you leave the hospital.
- **Hospital nursing staff:** are responsible for caring for you. Your nurse will come to your room to provide care, watch your condition and help you stay comfortable and safe. If you have questions or concerns at any time during your stay in the hospital, please talk to your nurse.
- **Nutritionist:** will review the diet ordered by your doctor and develop a diet plan for you. Your nutritionist can help you to develop a diet plan for after you leave the hospital.
- **Physical therapist:** develops a plan to improve your balance, strength and flexibility. This means working with you on moving your whole body. These movements include getting out of bed, standing up, sitting down, walking across a room and climbing stairs.



- **Social worker:** provides counseling and discharge planning (planning for your care after you leave the hospital). They lead support groups for patients, families and loved ones coping with illness and hospitalization. Your social worker can also suggest community resources and help you return to your daily routines and activities.

Your healthcare team will work with you to make sure you receive the best possible care and treatment. They will also provide you, your family and your loved ones with important information and updates about your health, your surgery and your treatment. They are available to answer any questions or concerns that you may have.

Scheduling Your Heart Surgery

You and your surgeon will discuss when you will have your surgery. Your cardiac surgeon's office will schedule the surgery and tell you the date and time that you need to be at the hospital. Usually, your surgery will happen on the scheduled day. It is possible that your surgery may need to be postponed. This may happen if:

- There are problems with the results of your preoperative testing.
- You become sick (you get a cold or the flu).
- Your surgeon becomes unavailable due to another medical emergency.

If your surgery is cancelled, your surgeon will schedule a new date as soon as possible.

Pre-Admission Testing

The week before your surgery you will need to go for Pre-Admission Testing to make sure that your body is strong enough for the surgery. Your surgeon's office will schedule the date for these tests. The Pre-Admission Testing Office is located on the ground floor of Tisch Hospital. At this appointment you will:

- ✓ Speak with a nurse practitioner or a doctor from your surgeon's office. They will review your medical history and make sure that you are able to have your surgery.
- ✓ Speak with a member of your healthcare team about your surgery. They will explain the benefits, the risks and other possible treatments. They will then ask you to sign a consent form giving your doctor permission to do your heart surgery.
- ✓ Meet with an anesthesiologist (doctor who specializes in giving anesthesia) who will explain:
 - The type of anesthesia (medicine used to make you sleep) you will have during surgery.
 - The types of medicine that may be used after surgery to help manage your pain.



- ✓ Have tests including:
 - blood work
 - EKG which measures your heart function
 - chest x-rays
 - other tests as needed

- ✓ Review breathing exercises you will need to do after your surgery. These exercises will help you to recover faster.

In some cases you will not go for pre-admission testing. This may happen if your surgery is being done as an emergency or if you are already in the hospital before surgery. In this case, all of the needed tests and meetings will be done in the hospital before surgery.

Your Recovery

At this point, there is no way to know exactly how long you will need to stay in the hospital after surgery. The amount of time you stay in the hospital depends on the type of surgery and your overall health. Many patients leave the hospital within 5 days but this does not mean that your recovery is complete.

It will take between 4 and 12 weeks for your body to fully recover after you leave the hospital. Before your surgery, you and your healthcare team will discuss the activities that you can and cannot do during this recovery time. See the handout called *Heart Surgery: After You Leave the Hospital*, for some general information about what you will and will not be able to do as well. Remember, though, we cannot determine exactly what activities you will be able to do at what point in time until we see how you are feeling after your surgery. It is important that any family members or loved ones who may be helping you to care for yourself after surgery understand the things that you are and are not allowed to do during your recovery period. We suggest that you bring a family member or loved one with you to all of your appointments. Ask your surgeon or any member of your healthcare team any questions you may have.

Blood Donations

Heart surgery patients may need to receive blood replacement during surgery. The amount you may need depends upon the type of surgery you are having. We encourage you to talk to your family and loved ones about donating blood for you. It may also be possible for you to donate your own blood so that it can be available during surgery. Your surgeon can tell you if this is an option for you. If you cannot use your own blood or find anyone to donate blood for you, you will still receive all the blood you need. For more information about blood donation, visit the Volunteer Blood Donor Program located on the main hallway of the Schwartz Health Care Center (530 First Avenue) or call 212-263-5440.



Medications

You may need to stop taking some of your medications for a short time before surgery. This includes blood thinners such as warfarin (Coumadin[®]) or clopidogrel (Plavix[®]). Your cardiac surgeon or cardiologist will give you instructions about when and how to stop these medicines. They may also adjust the amount of heart medication(s) that you take for a few days before surgery. They will tell you how and when to go back on these medications after surgery.

The Night Before Surgery

You MAY NOT eat or drink after midnight on the night before surgery except for needed prescription medications. This includes water, candy and gum. Your healthcare team will discuss which of your medications you need to take. You may have a very small amount of water if you need to swallow a pill.

You should take a shower the night before surgery. You will be given special antiseptic wipes that contain a medicine to protect you from getting an infection after surgery. You will need to wipe your skin with the cloths on the night before surgery and on the morning of surgery. These cloths destroy germs on your skin that may cause infection. You will be given an instruction sheet that will tell you how to use these wipes.