Cardiovascular Surgery Terms

To help you better understand your surgery, here is a list of terms with some information to explain them. Please ask your doctor or nurse if you are not sure what something means related to your treatment or care.

Types of incisions

Sternotomy - The sternum, also known as the breastbone, is split open so the chest can be open for the doctor to work on the heart. This incision is used if a patient needs to be on the heart-lung bypass machine during surgery.

Partial Sternotomy, also known as a mini-incision - Either the upper or lower half of the sternum, also called the breastbone, is opened for this incision. This depends on which part of the heart needs repair. The benefit is that part of the breastbone remains intact so there is better support for the other half as it heals. Your doctor will always use the smallest incision possible. Sometimes the incision must be made longer for the doctor to see better or to reach further around the heart.

Thoracotomy - Incision often through the left rib cage area under the arm to allow the doctor to work on the left side of the heart. During surgery with this type of incision, the left lung is often deflated and the heart is still beating.

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Surgery techniques

MIDCAB - Minimally invasive direct coronary artery bypass is done using several small incisions, about 3 inches long, at the front of the chest. The doctor works through these incisions with a camera and instruments to do the bypass surgery. This type of surgery can take longer but the recovery is often quicker.

Cardiopulmonary Bypass Machine, also called a heart-lung bypass - The use of a pump and tubes connected to the heart to circulate the blood and bypass the heart. This allows the doctor to stop the heart from pumping to repair and work on the heart. Major repair can be done without risking blood loss and other problems. The effects from the machine can make recovery a little longer and more complex.

Off Pump Procedure - Surgery is done while the heart is still beating. This means the heart is not placed on the cardiopulmonary bypass machine. Only your doctor can decide if this procedure is right for you.

Robotic Surgery - Use of a robot to perform surgery with the heart beating and only small incisions are made through the chest wall. The surgeon sits away from the table and uses a machine to watch and direct the instruments to do the surgery. Surgery time can be long but recovery time is quicker.

Maze Procedure - Used to correct atrial fibrillation, an abnormal irregular heart beat. Often done during heart surgery, scar tissue is made in the tissue of the heart using small incisions, freezing or ultrasound. This forms a maze for the electrical signals of the heart to follow to correct the irregular heart beat.

Pulmonary Vein Isolation - Extra electrical paths around the pulmonary veins can cause irregular heart beats. In this procedure, the paths are cut by making scar tissue around them using heat, freezing or small incisions.

Surgical Ventricular Reconstruction (SVR) - Surgery where weak scar tissue of the ventricle is removed in patient's with heart failure. This improves the heart's pumping action.

Transmyocardial Revascularization (TMR) - Small holes are made in the left ventricle tissue to cause bleeding and inflammation. This allows new blood vessels to grow into the tissue to improve the heart muscle so it pumps better.

Annuloplasty - Surgery repair of the ring of a damaged heart valve. Purse string sutures are used to pull the ring so the opening is smaller.

Valvuloplasty - Surgery repair of a heart valve.

Repair of Structural Support - Surgery repair of leaking heart valve. Cords are replaced or shortened that allow the valve to close.

Valve Replacement - Damaged heart valve is removed and replaced with a prosthetic valve. Refer to handout, Heart Valve Surgery, for more information.

Heart valve problems

Valve Stenosis - Narrowing of a valve opening.

Valve Regurgitation - Leaking heart valve.

- **Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.**