Your surgeon will then carefully sew this new blood vessel into place with the one end of the new blood vessel on the coronary artery beyond the blockage. The new blood vessel will then direct oxygen-rich blood from the aorta over the blockage to the coronary artery that needs the blood.

What happens to the blockage?
The blockage remains as is. The blood supply has been rerouted around it to the heart muscle.

What are the risks?
Almost half a million bypass surgeries are performed each year. As in all major surgery, there are risks. Coronary bypass surgery has an excellent success rate. There is a small risk of stroke, bleeding, infection, heart attack, or death. After careful review of your medical history and a physical exam, your surgeon will identify your risks.

How will I feel after my bypass?
You will wake up in the CCU (Critical Care Unit). You may feel confused at first. Your family will be able to visit briefly. You may be uncomfortable and unable to talk, but the nurses will help you communicate. Be assured you are in capable, caring hands.

The equipment surrounding you will help you breathe, measure heart function, check blood pressure, heart rate, and kidney function. Once your condition is stable and you are doing well, you will be encouraged to start sitting up in a chair.

Most of the tubes will be removed within a day or two, and you’ll be moved to the Progress Care Unit. You will be asked to breathe deeply and cough frequently to clear any fluids from your lungs. You will feel sore, and you may experience moodiness or even feel down. This is all quite normal. Your surgeon will prescribed medication to keep you comfortable. If you are in pain, tell your nurse or physician so that pain medication can be given regularly. The nurses will encourage you to move and walk around. Within a few days you will eat a normal meal and begin to feel better each day.

What can I do when I return home?
Your surgeon and the medical center staff will discuss any restrictions you will have, such as lifting and driving.

You will be seen by your surgeon a few weeks after surgery. It will take you two to three months to fully recover both physically and emotionally. Most people with sedentary office jobs can return to work in four to six weeks; those with physically demanding jobs will have to wait longer.

You may be instructed to make some changes in your lifestyle such as reducing your consumption of fat and cholesterol, stop smoking, lose weight, exercise, and attend Saint Elizabeth’s Cardiac Rehabilitation Program.

Remember...
It is important to be your own best health advocate. A good way to do that is by committing to routine physical exams and diagnostic tests as often as is recommended by your cardiac specialist. Early detection of heart disease is the key to effective treatment.
It is important for you to know as much as possible about how your heart functions in order to have a complete understanding of bypass surgery.

Your heart is a muscle that pumps blood throughout your body. To do its work, your heart needs a constant supply of oxygen-rich blood which it gets from the lungs.

Coronary arteries are blood vessels that wrap around the heart muscle and keep it supplied with oxygen-rich blood. When blood is pumped by the left ventricle, it is forced into the body's largest artery, the aorta, located at the top of the heart. Two coronary arteries, the **left main artery** and the **right coronary artery**, branch off the aorta.

The left main artery is about as wide as a drinking straw and less than an inch long. It branches into two narrower arteries: the **left anterior descending**, which travels down the front side of the heart, and the **left circumflex**, which circles around the left side and then to the back of the heart. The right coronary artery branches from the aorta, circles around the right side and then to the back of the heart. These arteries are on the outside surface of the heart. They divide into smaller branches, similar to a tree, and go deep into the heart muscle carrying oxygen-rich blood to the cells.

**Diagnosing your problem**

If you have a blockage in one or more of your arteries, the blood supply to your heart muscle is severely compromised. Chest pain, chest discomfort, arm pain, or other symptoms you may have experienced are the warning signs that your heart muscle is not getting enough blood. If this persists, you could suffer a heart attack and the muscle will be damaged.

**What causes a blocked artery?**

*Atherosclerosis* is the buildup of fatty deposits on the inside of the arteries. They become narrow and reduce the blood flow to the heart (like a clogged drain pipe).

**Where does atherosclerosis come from?**

Cholesterol is a necessary component of the human cell; but over time, cholesterol in the blood can deposit on the inside walls of the arteries. This seems to happen faster in people who:

- Smoke
- Have high blood pressure
- Eat high fat, high cholesterol foods, or, for other reasons, have high cholesterol
- Are overweight
- Have a lot of tension and stress
- Do not exercise regularly
- Have diabetes
- Have family members with a history of atherosclerosis [coronary artery disease]

**How do we determine if you need bypass surgery?**

A cardiac catheterization may be done. Pictures, called **angiograms**, are taken to show the blockages in the heart’s blood vessels (coronary arteries).

**What is bypass surgery?**

Coronary bypass surgery is an operation in which other blood vessels are used to go around, or bypass, clogged coronary arteries. Blood can then flow freely to the heart through the new vessels.

**How do I prepare for bypass surgery?**

Rest, eat well, quit smoking, and follow instructions by your physicians. Several routine tests are done before surgery: EKG, echo-cardiogram, chest x-ray, blood tests, medical history and exam. Make a list of any questions you have and ask your physicians before surgery. You will receive specific instructions before surgery to completely prepare you for the procedure.

**What happens before surgery?**

The morning of surgery you will be given medication to make you feel relaxed and drowsy. You will be taken to surgery and will be in the operating area for several hours. The waiting time will seem long to your family, but the heart surgery will not take that long.

**About bypass surgery**

After your anesthesiologist has given you medication for you to sleep, your surgeon will take a small blood vessel from somewhere else on your body; for example, an extra vein from your leg or an artery from your chest or arm.