

# Facing Coronary Artery Bypass Surgery?

Learn about minimally invasive  
*da Vinci*® Surgery

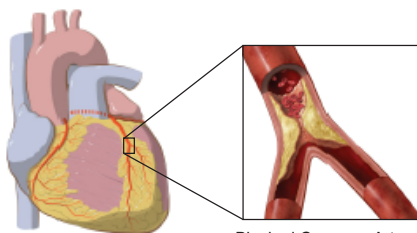
## The Condition:

### Coronary Artery Disease

Coronary artery disease is a form of heart disease that affects your arteries. Your arteries are the blood vessels that bring oxygen-rich blood from your heart to the rest of your body. Coronary artery disease occurs when plaque builds up in your arteries and slows blood flow. Plaque is a buildup of fat, cholesterol and calcium in your blood.

Symptoms of a blocked artery can vary from person to person, but common symptoms include pressure or pain in your chest, shoulders, arms, neck, jaw, or back. Coronary artery disease can lead to a heart attack which occurs when blood flow is completely blocked. A heart attack can cause serious health problems or even death.

Coronary artery disease is the most common type of heart disease and the leading cause of death world-wide. It claims more than 7 million lives each year.



Blocked Coronary Artery

Your doctor may recommend medicine and lifestyle changes to ease your symptoms and reduce your risk of a heart attack. If your symptoms get worse, your doctor may recommend surgery, such as angioplasty or coronary bypass. The goal of surgery is to improve blood flow to your heart and ease your symptoms.

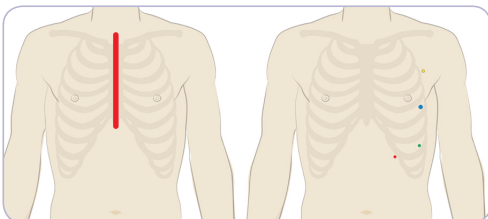
## Treatment & Surgical Options:

During angioplasty, your doctor makes a small incision in your groin and inserts a thin tube with a deflated balloon on the end. Once it reaches your artery, the balloon is inflated and pushes the plaque outward against the artery wall. This widens the artery and restores blood flow. A small mesh tube called a stent may also be placed in your artery to keep it open after the procedure. The stent may also be coated with a drug that helps to prevent your artery from closing in the future.

Coronary bypass surgery is also called CABG (coronary artery bypass graft surgery) or coronary revascularization. During surgery, doctors use healthy arteries or veins from other areas of your body to bypass (go around) your narrowed arteries.

Bypass surgery can be performed using traditional open heart surgery. Your surgeon makes a large chest incision and cuts through your breastbone (sternum) to reach your heart. A heart-lung machine is also used. It allows the heart's beating to be stopped so that the surgeon can operate on a blood-free and still surface. A newer type of bypass surgery does not use the heart-lung machine. This is called off-pump coronary artery bypass, or OPCAB. This may be used if your doctor feels you could have problems on the heart-lung machine. Open surgery allows your surgeon to see and touch your heart and tissues.

There is a minimally invasive surgical option for patients facing bypass surgery *da Vinci* Surgery.



Open Surgery  
Incision

*da Vinci* Incisions

## da Vinci Surgery :

### A Minimally Invasive Surgical Option

With the da Vinci Surgical System, your surgeon operates through a few small incisions between your ribs. As a result, your breastbone is not cut open. With *da Vinci*, surgeons also do not need to use a heart-lung machine.

The *da Vinci* System features a magnified 3D high-definition vision system and tiny wristed instruments that bend and rotate far greater than the human wrist.

*da Vinci* enables your surgeon to operate with enhanced vision, precision, dexterity and control.

As a result of *da Vinci* technology, *da Vinci* Coronary Bypass Surgery offers the following potential benefits over traditional open heart surgery:

- › Fewer major complications
- › Less blood loss & fewer transfusions
- › Less time in intensive care unit (ICU)
- › Shorter hospital stay
- › Faster recovery & return to normal activities
- › Higher patient satisfaction
- › Small incisions for minimal scarring



### Risks & Considerations Related to Coronary Bypass Surgery & *da Vinci* Surgery:

Potential risks of any coronary artery bypass procedure include:

- Heart attack or stroke
- Heart rhythm problems
- Kidney or lung failure
- Fever and chest pain (together called post-pericardiotomy syndrome)
- Memory loss and/or loss of mental clarity

In addition to the above risks, there are risks related to minimally invasive surgery, including

*da Vinci* Coronary Bypass Surgery, such as a chest wound infection which is more likely in patients who are obese, diabetic or have had coronary bypass surgery in the past.