



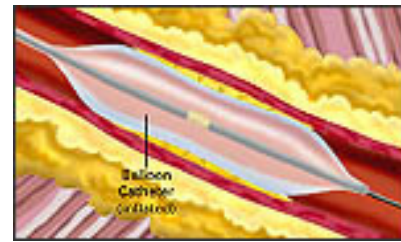
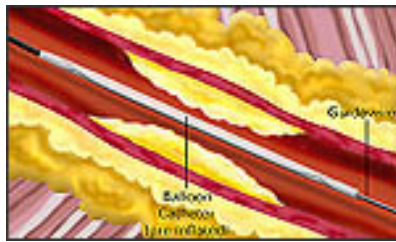
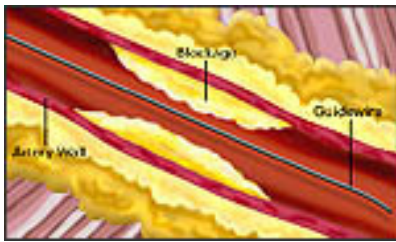
Cedars-Sinai Heart Center - Angioplasty and Stenting

Angioplasty and Stenting

Coronary angioplasty is a nonsurgical treatment for blocked or narrowed passages in one or more of the coronary arteries. This procedure allows a normal supply of blood to flow through the heart muscle.

Angioplasty can be done in several ways, depending on the type of plaque, size and shape of the artery including:

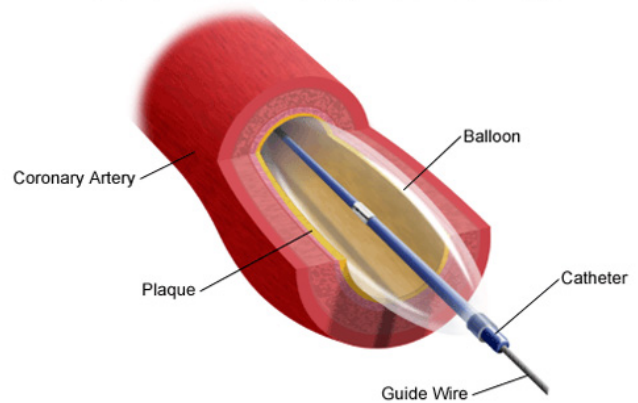
- **Balloon angioplasty.** A catheter (thin tube) with a balloon on the end is threaded through the groin up to the narrowed artery. The balloon is then inflated at high pressure one or more times to widen the artery and allow blood to flow more easily through it.



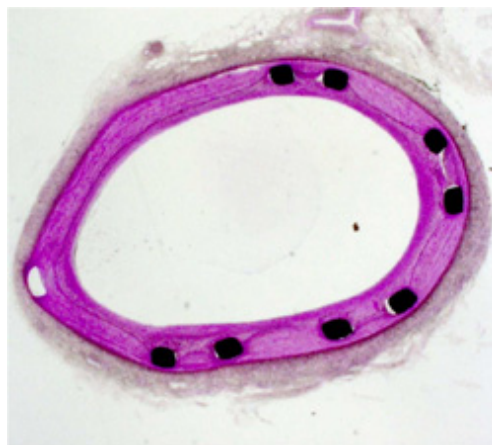
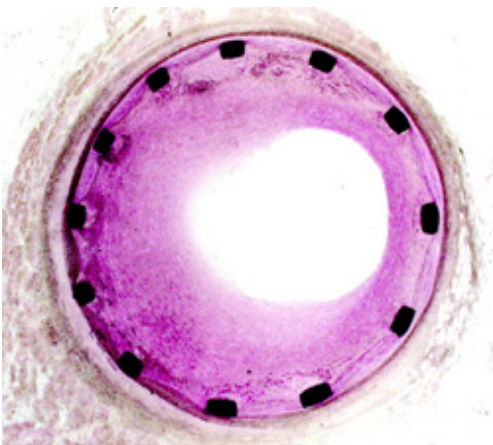
- **Laser angioplasty (Excimer Laser coronary angioplasty - ELCA)** involves inserting a laser-emitting catheter into the narrowed part of the artery. Once the laser is turned on, the plaque is vaporized, thus reducing the block in the artery.
- **Directional coronary atherectomy** uses a small, sharp blade inside a catheter that is placed against the plaque so the doctor can remove part of the plaque from the artery wall.
- **Stent implantation** uses a balloon catheter to move a thin metal scaffolding (a stent) into a narrowed coronary artery. The balloon catheter is inflated, expanding the stent and permanently fixing it in place in the coronary artery to keep it open. Because the stent is a foreign object in your coronary artery, you should receive a stent card that describes the type, date and location of the stent. You will not set off any metal detectors after stent implantation.

By the same token, you will not have to take antibiotics before surgical or dental procedures to prevent bacteria from infecting your stent, unless your doctor specifically orders it.

Inflation of Balloon Inside a Coronary Artery



- **Drug-eluting stents** are a new type of stent that slowly release drugs that help prevent scar tissue from forming inside the stent. When scar tissue formed in older types of stents, it sometimes caused another blockage and a return of symptoms. This required another stenting procedure.



- **Valvuloplasty** is a non-surgical technique that uses dilation catheters to increase the flow of blood through narrowed or tight heart valves. This new procedure is similar to percutaneous transluminal coronary angioplasty in that a catheter is inserted through the femoral artery in your groin and advanced to the narrowed area guided by X-rays. A dilation catheter is inflated to make the heart valve opening larger and improve blood flow.
- **Atrial Septal Defect Closure**

Preparing for coronary intervention and its follow-up are the same as for [cardiac catheterization](#). Specific instructions for [preparing for cardiac catheterization](#) are available in the **For Patients section**. As with an [angiogram](#), angioplasty procedures are done using a local anesthetic. You will be awake but drowsy during the procedure. The procedure may last up to two hours longer than the catheterization.

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