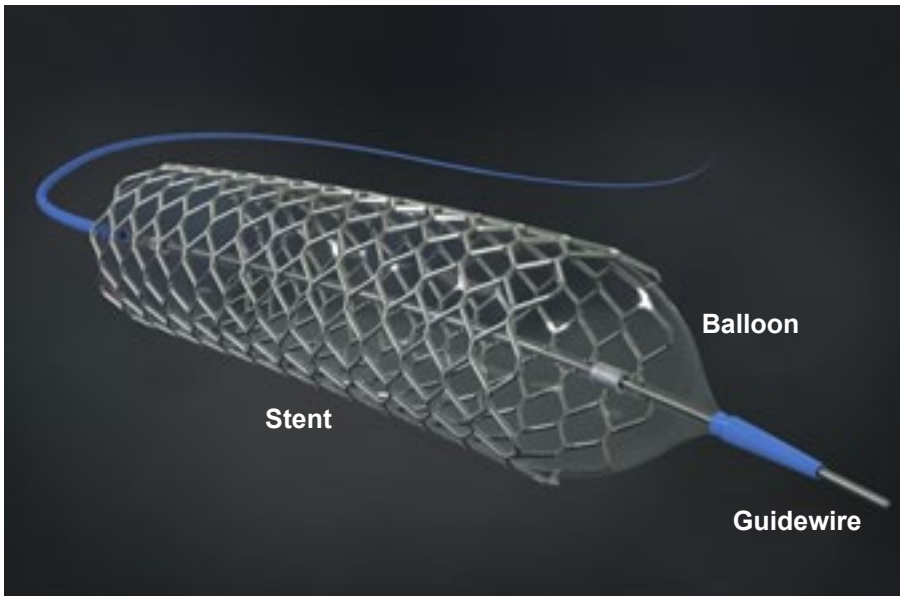


Cardiovascular Stent Placement



Overview

During this procedure, a physician guides an expandable mesh stent into a narrowed or blocked artery in the heart. The stent will be expanded to widen the artery and hold it open, improving blood circulation to the heart's tissue.

Preparation

In preparation for the procedure, the patient is positioned and given a sedative. The site where the catheter will be introduced is numbed with an injection of a local anesthetic. Typically, the physician will insert the catheter into a blood vessel in the groin, but the catheter may also be inserted into a blood vessel in the arm.

Locating the Blockage

The physician makes a small opening in the numbed tissue and inserts a protective sheath into the blood vessel. The physician introduces a guide wire through this sheath and carefully maneuvers it through the circulatory system to the heart. When it is in position, a catheter is pushed over the guide wire and up into the heart. The physician injects a small amount of contrast dye through the catheter. The dye moves through the blood vessels. The dye can be seen clearly with a fluoroscope (a camera that creates a real-time moving x-ray). This allows the physician to pinpoint the blockage.

Deploying the Stent

Once the blockage has been identified, the physician carefully guides a balloon-tipped catheter (which carries a collapsed stent) into the blocked artery. When the catheter is in position, the physician inflates the balloon. This expands the stent and presses it firmly against the walls of the artery. The stent widens the artery, holding it open to restore healthy blood flow.

End of Procedure

When the cardiologist is sure that blood is flowing normally through the artery, the guide wire and catheters are removed. The patient is taken to a cardiac nursing unit, where the sheath is removed and the patient is monitored. If there are no complications, the patient may be discharged the next day.

