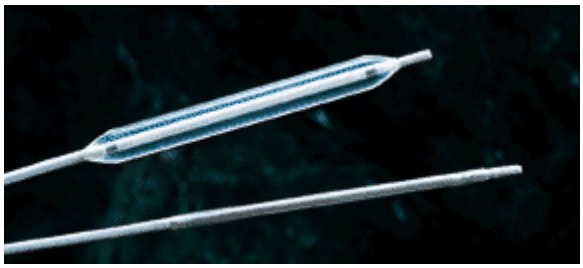
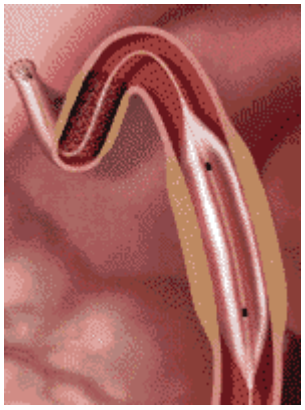
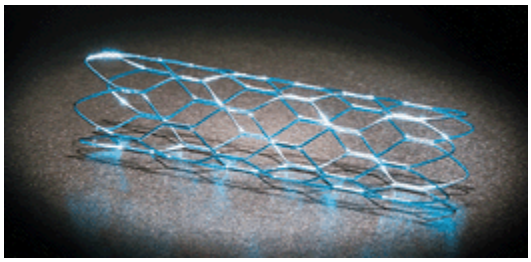
DESCRIPTIONS OF INTERVENTIONAL CARDIAC PROCEDURES

BALLOON ANGIOPLASTY (PTCA or Percutaneous Transluminal Coronary Angioplasty)
The method by which a small balloon tipped catheter is placed over a guide wire into the narrow segment of the coronary artery. The balloon is then inflated several times, compressing the fatty material (plaque) against the wall of the artery. This opens the narrowed section increasing blood flow to the heart muscle.





STENT IMPLANTATION
The method by which a small metal slotted or coil tube is placed against the artery wall to hold the artery open. Balloon angioplasty is done before and after the stent is placed. The stent is a permanent implant that stays in the artery.



ATHERECTOMY
The method by which a small mechanically driven cutter shaves the plaque from the artery wall. The catheter is placed over a guide wire to the narrowed segment. Balloon angioplasty may be done before and after the atherectomy. The different types of atherectomy catheters that may be used:

- Rotational Atherectomy uses an abrasive diamond coated burr at the tip of the catheter. The catheter is rotated rapidly (like a dental drill) to grind or sand the plaque into tiny particles that float away in the blood stream.
- Extraction Atherectomy uses a rotating blade inside the tip of the catheter to cut the plaque. The plaque is then vacuumed into the catheter and removed.
- Directional Coronary Atherectomy (DCA) uses a catheter with a windowed chamber over a rotating blade. The window is placed over the blockage. The rotating blade shaves the plaque and collects it in the catheter tip.

INTRAVASCULAR ULTRASOUND
The method by which a sonogram (ultrasound) catheter is placed in the coronary artery. As the catheter is pulled back, sonogram pictures are taken. This is used to determine the level of blockage and the size of the artery.