CARDIAC & VASCULAR ASSOCIATES

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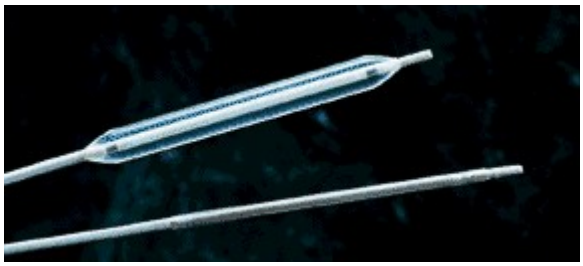
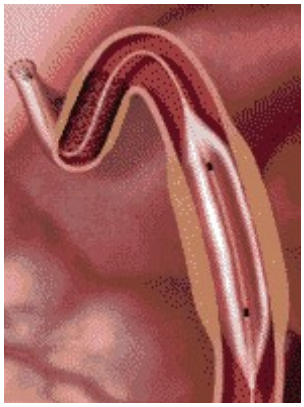
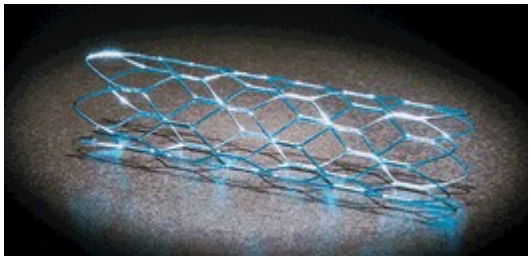
DESCRIPTIONS OF PERCUTANEOUS CORONARY INTERVENTIONS (PCI)

Balloon Angioplasty (PCI or Percutaneous Coronary Intervention)
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 the stent is placed. The stent is a permanent implant that stays in the artery and helps keep most arteries open better than balloon angioplasty alone. Dr. Stratienko trained with the inventor of the stent, Dr. Richard Schatz, in La Jolla, CA in 1990 and introduced stent technology to the Chattanooga area, performing the first coronary stent procedure here in 1993.



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 that may be performed are:

- 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. Dr. Stratienko performed the first rotablator procedure in the Chattanooga area in 1994.
- 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. Dr. Stratienko performed the first extraction atherectomy procedure in the Chattanooga area in 1993. This technique is now seldom used.

Drug Eluting Stents (DES)

Stents with a very fine polymer coating impregnated with drugs that inhibit re-growth of tissue within the stent have reduced restenosis to less that 5% and are now the preferred method of treating coronary blockages with stent technology. DES may pose a slightly higher risk of clotting compared to bare metal stents (BMS) and therefore require longer periods of treatment with clot inhibiting drugs such as aspirin and clopidogrel (Plaxix®).