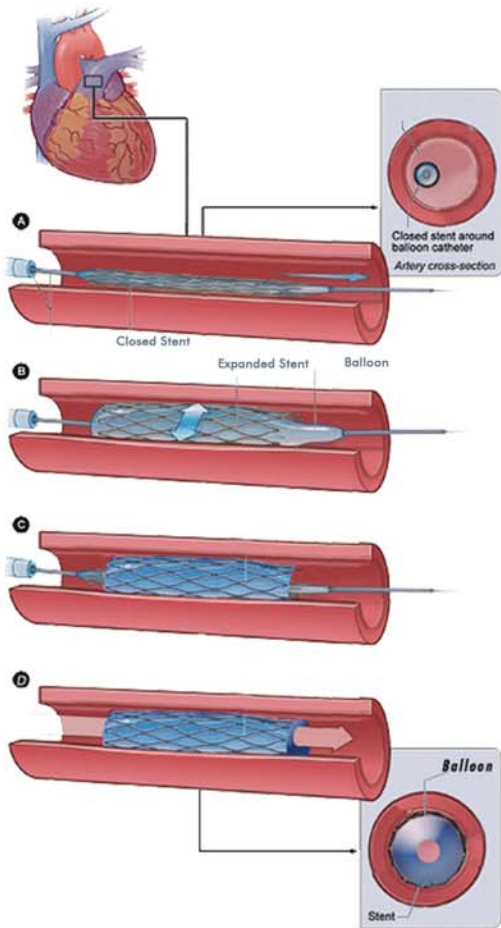


Lined Balloon Mounted Stent:

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The invention introduces a form of a stent to be mounted inside vessels (interventional technique without surgery) cardiac or other vessels (urinary, gastrointestinal) to adjustably limit the flow through or totally occlude the lumen of the vessel.



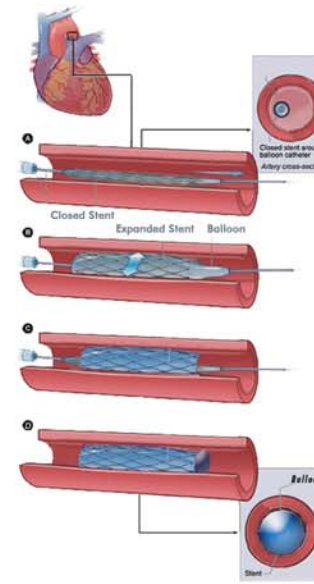
The lined balloon mounted stent is introduced over a regular guide wire to the desired location in the circulation by regular interventional technique

After confirming the position, the balloon catheter is inflated to stabilize the stent in its position

The balloon catheter is deflated leaving the stent against the vessel wall

The lining balloon is inflated (CO₂, saline, ..etc) either totally to occlude the lumen or partially just to control the flow across

The catheter is withdrawn leaving the stent in place



The inflation or deflation to control the size could be done during the procedure and sometimes later as well.

The inflation can be done by carbon dioxide, air or even different fluids e.g. normal saline. The addition of the ability to compress the narrowed segment later on by dilating balloons is again feasible as well.

The Lined Balloon Mounted Stent shows following advantage:

- can be used for PDA closure in preterms, neonates and infants;
- Interventional controllable pulmonary artery banding;
- the narrowing produced is adjustable during the procedure;
- Reversible (short and long term) closure of partial closure (controllable) of any body channels (e.g. Cerebral aneurysms, fistula);
- the size of the device is small, can be done or smaller vessels e.g. babies; no age or size limitation as competitors;
- the cost is minimal compared to the alternatives;
- can be used to partially or totally occlude any abnormal vessel transiently or permanently:
 - a - without producing shoulders at its periphery like the competitors (as compared to Amplatzer devices)
 - b- with no residual flow guaranteed when total occlusion is targeted (as compared to coils)



Advantages