

# SUTURELESS DEVICE FOR CONNECTING VESSELS END-TO-SIDE

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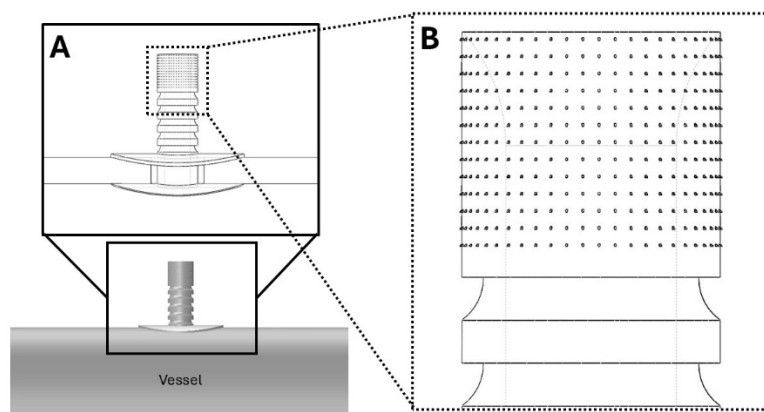
**Value Proposition:** Simple device that allows for sutureless end-to-side surgical anastomosis of vessels.

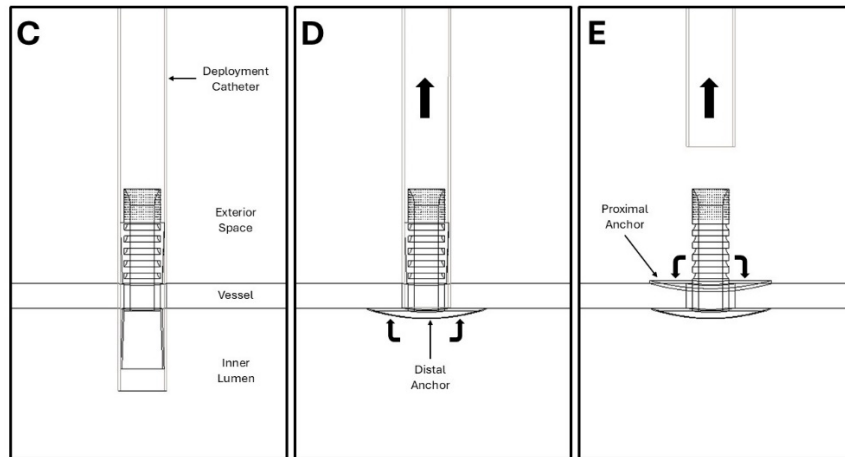
## Technology Description

Researchers at Washington University in St. Louis have developed a device which facilitates the sutureless end-to-side anastomosis of vessels. The TAPV device may be deployed across a vessel lumen and anchors itself in place in conformance with the physiological structure of the vessel's inner lumen (A). The TAPV device's external cannula's surface incorporates anchoring geometry (B), which allows the operator to anchor a receiving vessel without the use of sutures by simply inserting a receiving vessel over it.

The TAPV may be deployed across the lumen of a vessel within a deployment catheter with its proximal and distal anchors under spring compression (C). By withdrawing the deployment catheter, the distal anchor automatically releases within the lumen of the vessel (D). Further withdrawing the deployment catheter, the proximal anchor releases, securing the TAPV to the vessel (E).

Traditionally, similar devices have required sutures, and have demanded more time, effort, and a high level of technical skill on the part of the operator to deploy properly. The TAPV greatly simplifies the process by minimizing the area of application, automatically anchoring itself in conformance with the vessel's physiology, and not requiring the operator to apply sutures to ensure a secure connection between the vessels.





## Applications

- End-to-side surgical anastomosis of vessels

## Key Advantages

- **Rapid, simplified, sutureless** end-to-side surgical anastomosis of vessels

## Patents

### Patent application filed

### Related Web Links [\[PL1\]](#) - [Mohamed Zayed profile](#); [Zayed Lab](#)

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[\[PL1\]](#) If available, use PI profile(s) from <https://profiles.wustl.edu/> in addition to any reasonably up-to-date lab website