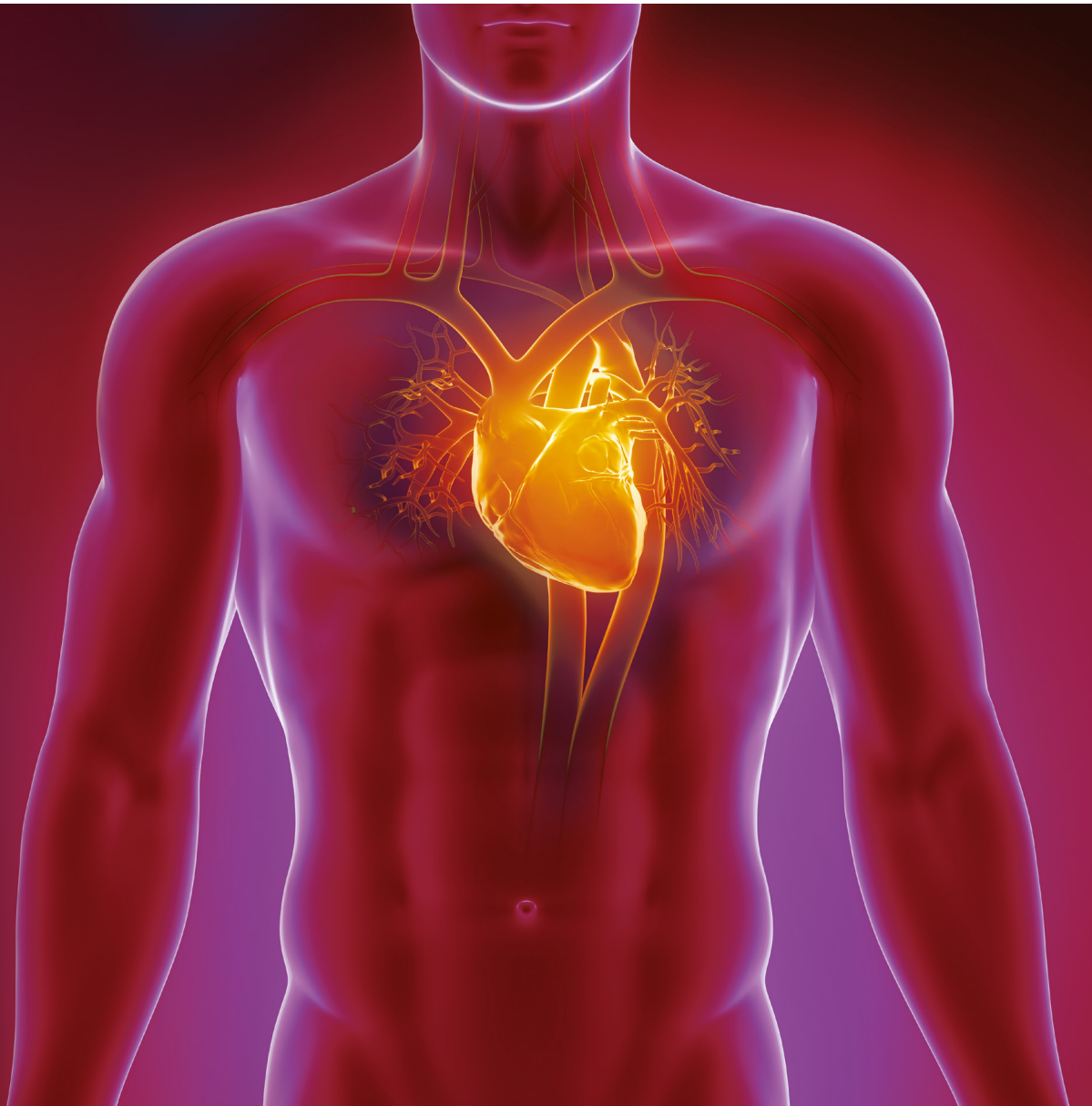
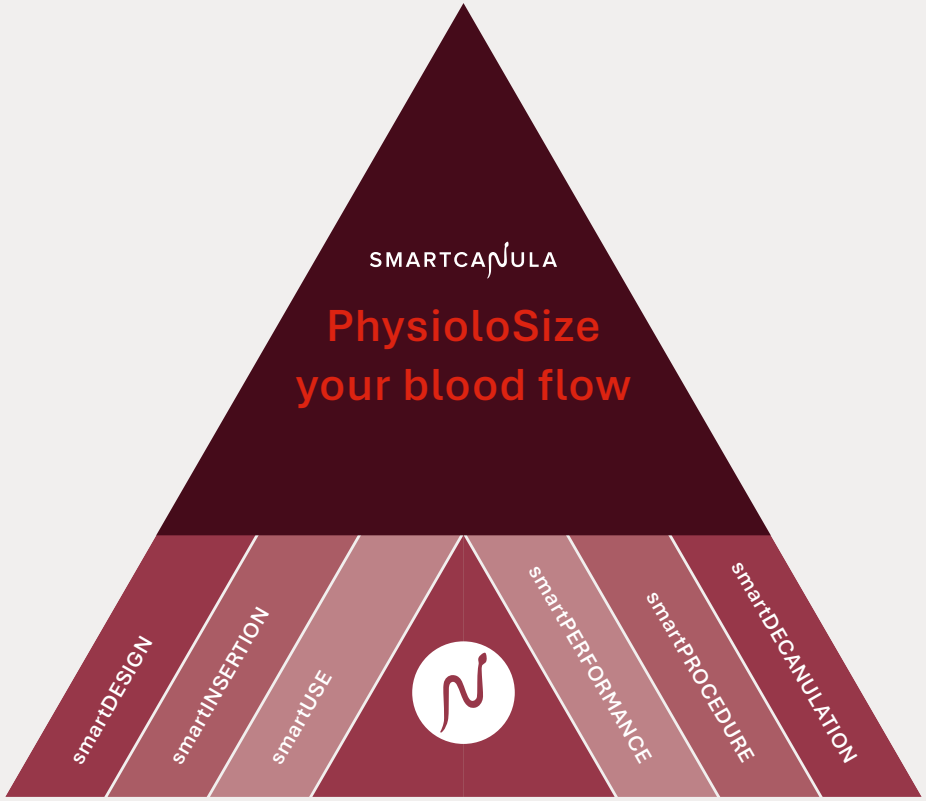
SMARTCANULA

PhysioloSize
your blood flow

The most physiologic way to
drain blood in cardiac surgery



SMARTCANULA



PhysioloSize your blood flow

smartDESIGN

- Self expansion[1, 2]
- Unsurpassed lumen[2, 3]
- Drainage along its entire path[1, 2, 4, 5]
- Caval stenting[2, 3, 4, 5, 6, 7]
- Superiority to other cannulas[2]
- Limit venous collapse phenomenon[1, 3, 4]
- Avoidance of caval axis injury[4, 7, 8]
- Decreased pressure drop[9]
- Increased flow[2, 6]

smartPERFORMANCE

- Optimized drainage[2, 4, 5, 6, 11]
- No augmentation[6, 4]
- Improved end organ perfusion[6]
- Better hemodynamic performance[7, 12]
- Improved flow[2, 6]
- Lower negative pressure[2, 7, 13]
- Less blood trauma[6]

smartINSERTION

- Small insertion lumen[2, 4, 5, 10]

smartPROCEDURE

- No snairing[6]
- No air lock[6]
- Minimal cardiotomie suction[6]
- No aortic cross clamping[6]
- Excellent bloodless field[6, 7]
- Atrial chatter reduction[10, 14]

smartUSE

- Safe[3]
- Effective[3]
- Reliable[3]
- Simplifies MICS procedure[3]

smartDECANULATION

- Collapsed configuration[3, 7]
- Easy removal[15]
- Blood loss minimization[7]

PhysioloSize your blood flow by smartPERFORMANCE

Superior flow

Optimizing the lumen is the key to enhanced drainage. The space between the smartcanula and the vein wall is no longer a channel; instead, blood directly drains into the smartcanula along its entire length. A shorter path at lower velocities leads to a decreased pressure drop and increased flow.

“

The same flow is associated with a significantly less negative pressure and optimal venous drainage compared to standard thin wall percutaneous canulas.[2, 4]

“

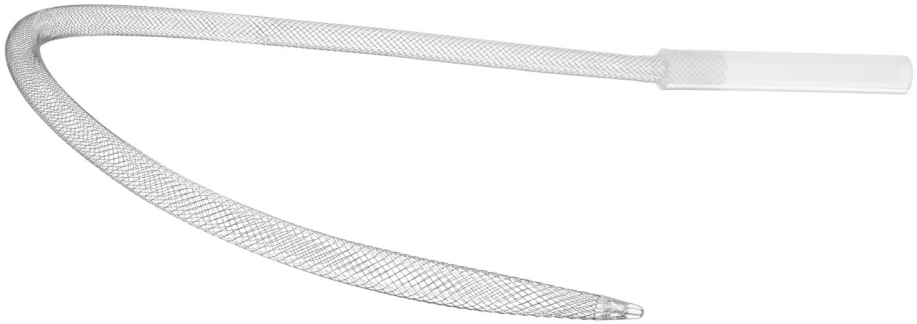
Even in patients with a high body surface area, the estimated target full flow was achieved with a slightly lower additional negative pressure, which is the inevitable consequence of better venous drainage due to the canula design.[7]

“

The negative pressure necessary to achieve adequate venous drainage with the venous smartcanula is approximately 31% of the pressure needed for the 19F conventional cannula.[2]

“

Excellent venous drainage can be achieved without augmentation.[6]

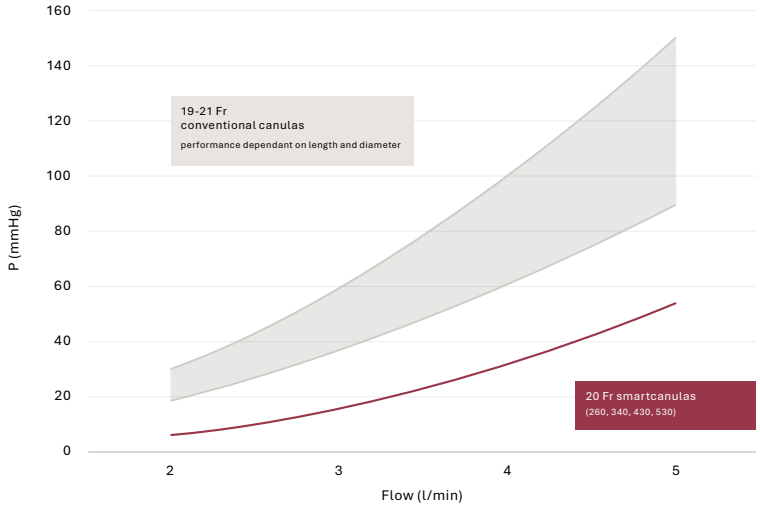


Performance of the venous smartcanula compared to conventional canulas*

Pressure flow correlation

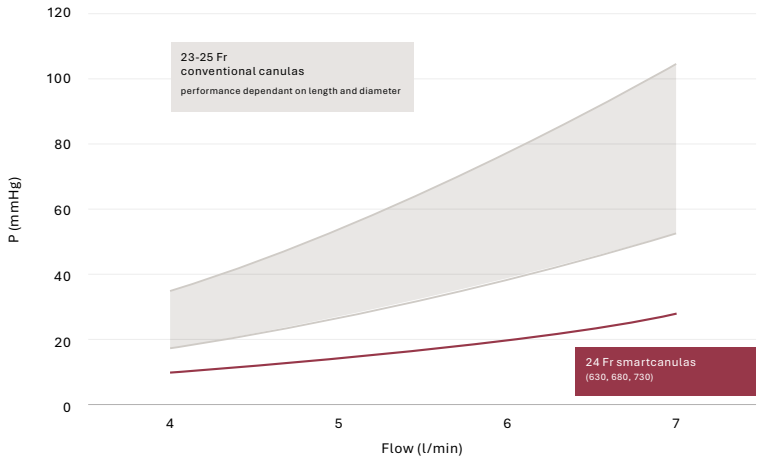
20 Fr venous smartcanula

Compared to conventional canulas



24 Fr venous smartcanula

Compared to conventional canulas



*venous smartcanula - determined with blood analogue | Conventional canulas - data taken from IFUs

SMARTCANULA

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