

Talking Points

- This is important because by using Cardica's automated systems, the surgeon was able to successfully attach all of the bypass vessels rapidly and consistently, even in areas of the heart that can be difficult to reach, **while the patient's heart continued to beat**. Performing a multiple bypass procedure using traditional techniques such as stopping the heart and placing the patient on a heart-lung machine, can be associated with significant risks. Using Cardica's automated devices help facilitate CABG surgery without the need to use a heart-lung machine.
- Also, Cardica's automated systems can attach the blood vessel grafts, called anastomoses, in **less than 2 minutes, compared to 10-15 minutes** for each hand-sewn connection. This is important because it can reduce overall OR time, which is costly.

- Dr. Balkhy was able to perform the C-CAB procedure because Cardica recently received FDA clearance for its innovative PAS-Port system, which connects vein grafts to the aorta. With the PAS-Port system, surgeons do not need to **clamp and manipulate the aorta, as they do with hand-sewing**. Clamping the aorta has been associated with stroke and other neurological effects.

- **Today, general surgeons extensively use miniature stapling devices** to connect vessels in bowel, abdominal and even pulmonary surgical procedures, **whereas 20 years ago hand-sewn sutures were used for virtually all of these procedures**. Just as staplers have become the standard of care in general surgery, it's likely that cardiothoracic surgeons will adopt automated stapling devices for anastomoses as the standard of care in cardiac bypass surgery.