



**NEWS RELEASE**  
**For Immediate Release**

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## **Cardiac surgeon takes primary risk out of heart bypass surgery**

**St. Louis, MO – March 9, 2009** – Achieving complication-free heart bypass surgery is the goal of every cardiac surgeon. A cardiothoracic surgeon at the SSM Heart Institute has combined and mastered two innovative surgical techniques to achieve this aim.

Cardiothoracic surgeon Seiichi Noda, M.D., is a St. Louis area pioneer in “beating heart” (off-pump) bypass surgery. This approach decreases the chance of post-surgical neurological/cognitive difficulties associated with conventional bypass surgery, during which the heart is stopped and a patient is supported by a heart-lung machine. Only 20 percent of bypass surgeries are performed with the heart still beating.

Over the past 18 months, Dr. Noda has begun performing beating heart surgery without clamps, an even rarer technique that adds an extra safety layer, decreasing the chance of stroke, kidney or liver failure that occur in about 2 percent to 3 percent of bypass operations. To date, none of his approximately 200 clampless bypass procedures have resulted in complications.

### ***Eliminating need for clamps***

Traditionally, clamps are used during surgery to seal off blood vessels at the site of the bypass. When the bypass vessel is attached and the clamps are released, there is a risk for plaque to break free and lodge elsewhere, leading to stroke or other complications.

“Heart vessels are not pristine. Inside, they are coated with years of plaque build-up,” Dr. Noda explains. “Placing and then releasing these clamps can dislodge plaque particles into the blood stream. Those particles can deposit in the brain, leading to stroke, or damaging the kidneys or the liver.”

A device called the “Heartstring” eliminates the need for clamps.

During the clampless beating heart procedure, Dr. Noda plugs a Heartstring device through an opening in the affected coronary artery. Like an umbrella, the wound-up device unfurls once underneath the opening to gently seal the vessel and stop blood flow. The Heartstring device is designed to collapse and unroll for easy removal after the bypass graft has been attached.

“The Heartstring device takes the most dangerous step of the bypass procedure and eliminates it,” says Dr. Noda.

As a further precaution, an ultrasound picture taken before the procedure begins helps Dr. Noda determine the best site — with the least plaque build-up — to perform the vein graft.

### ***The beating heart difference***

The clampless technique further enhances the safety of beating heart bypass surgery.

“The off-pump procedure requires fewer blood transfusions, and patients spend less time on a ventilator post-surgery,” Dr. Noda notes. “They are often out of the hospital in two to three days.”

Dr. Noda was one of the first, and remains among the few, heart surgeons in St. Louis to offer beating heart surgery. He has performed a total of 1,200 beating heart surgeries in his career.

### **About SSM Heart Institute**

The SSM Heart Institute is the region’s most experienced provider of comprehensive heart care. A team of more than 100 skilled cardiologists, electrophysiologists and cardiothoracic surgeons provides the most advanced treatments, leading-edge techniques and unparalleled experience for the best clinical outcomes. Combined with expert nursing and technical staff, this team offers a full range of services to prevent, diagnose and treat heart disease. SSM Heart Institute services are available at five locations across the St. Louis area: DePaul Health Center, St. Joseph Health Center, St. Joseph Hospital West, St. Joseph Hospital of Kirkwood and St. Mary’s Health Center. For more information, visit [www.ssmhealth.com/heart](http://www.ssmhealth.com/heart).