

# ART SURGEON

## Small incisions, less trauma for heart patients

By **BILL EGBERT**  
DAILY NEWS STAFF WRITER

The patient lay unconscious on the operating table. Over him hunched a 6-foot robot, swathed in sterile drapes like the nurses waiting nearby to assist.

One nurse attached a tiny scalpel to one of the machine's three pencil-thin arms. The surgical robot, named Da Vinci, slid the probe into the patient's chest cavity and harvested an artery to be grafted onto the patient's heart.

It was the future of surgery, but it happened yesterday at Beth Israel Medical Center in Manhattan, where a heart surgeon directed the \$1 million robot from across the room.

Dr. Hani Shennib gently manipulated fingertip controls while closely watching his movements on a 3-D monitor at his control console.

A few feet away, the gleaming arms of the surgical robot manipulated three instruments in the chest cavity of heart patient Eugene Bem, 67, of Brooklyn.

A tiny scalpel and pincers mimicked Shennib's every move.

"It's not just putting an instrument inside," he said as he gazed into the binocular monitor. "You can move it as if you were in there with your own wrist."

That, he said, is what makes the Da Vinci Surgical System so revolutionary: It allows operations to be done with tiny incisions, and be performed by a doctor a thousand miles away.

In a conventional operation, "You could open a big hole in their chest and have all the dexterity you need," Shennib said. "But then the patient has a lot of pain."

Heart disease is the biggest killer in the United States, but the most effective treatment — open-heart bypass surgery — has been almost as risky as the disease is deadly.

Heart surgery typically means open-heart, in which doctors saw



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**GRATEFUL** Eugene Bem shakes hands with cardiac specialist Dr. Hani Shennib after successful bypass surgery using the Da Vinci robot system.

struments.

The Da Vinci system is used in Europe, where more than 250 operations have been performed with no complications.

But the Food and Drug Administration has yet to approve the robot for anything other than abdominal operations — a clearance it issued this month. Yesterday's heart operation was part of a nationwide trial aimed at gaining approval for its use in bypass surgery by later this year.

The FDA authorizes doctors to perform only single bypasses with the machine, and it is not allowed to sew the harvested arteries into place.

Intuitive Surgical developed the Da Vinci system at the urging of the Pentagon, which sought a way for military surgeons to perform operations at the front lines. Shennib was just a few feet from his patient yesterday, but he could easily have been across the country.

As intriguing as the possibility for remote surgery may be, Shennib



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