

# Trillium's heart procedure reduces trauma for patients

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Staff

Trillium Health Centre (THC) has become only the second hospital in Ontario to offer a new form of heart surgery that minimizes trauma for the patient while significantly improving recovery time.

Doctors at THC, the regional cardiac surgery centre, have performed several operations since November that use a minimally-invasive technique known as multi-vessel small thoracotomy (MVST).

The technique eliminates the need to cut open the patient's breastbone to give surgeons access to the heart -- a procedure which can cause serious pain for some patients, extends their recovery time and leaves a long scar on their chests.

Using what has been unofficially dubbed 'keyhole' surgery, the new technique requires just a six-centimetre cut made between two ribs; Surgeons make several additional small incisions through which they attach special devices that hold the beating heart in place while they perform surgery.

In a recent operation, part of which was witnessed by The News, Dr. Gopal Bhatnagar, a cardiac surgeon and Trillium's chief of staff carefully harvested veins from the leg of a 75-year-old Oakville man and grafted them onto his heart, to create three bypasses around blocked coronary arteries.

In an interview, conducted in part while he operated, Bhatnagar said surgeons from THC visited a hospital in Staten Island, New York, to learn the techniques that were put in place at THC in November, about a week after the first operation was done at the Ottawa Heart Centre.

Three hospitals in Canada, and only a handful in North America, have are using MVST.

While patients experience less pain in recovery, reduced possibility of infection, fewer complications in healing, less blood loss and can go home in two or three days after surgery, MVST is more difficult for the surgeon.

"It takes a much longer time," said the Mississauga resident, especially while surgeons are mastering the technique. The

doctor works through a much smaller window and requires longer instruments. A different kind of stitching, onto the back of the heart, is also required.

Bhatnagar said that, "minimally invasive cardiac surgery is a natural evolution to beating-heart surgery, but requires much more intense training and special expertise by cardiac surgeons."

About 80 per cent of cardiac surgery at THC is done using the beating heart method, in which the heart is not stopped during surgery (as opposed to the traditional method in which the heart is stopped and the blood is circulated and oxygenated through a by-pass machine).

Because of the way it works, MVST surgery can only be done on patients who have blockages on the left side of their hearts.

Since the surgery reduces recovery time, it also benefits the hospital's strategy to seek out innovative technology and procedures that benefit the patient.

"These kinds of initiatives are only possible if you've got a team that's innovative and courageous in making advances," said Bhatnagar.