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# healthpoints

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*More from the Department of Surgery experts at:*

## Message from the Chairman



*Craig Smith, MD*

compassionate care.

This issue of healthpoints highlights the work of our dedicated cardiovascular surgeons and introduces you to some of the patients who have benefited from our expertise.

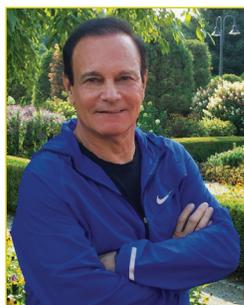
Warmly,

**Craig R. Smith, MD, FACS,**  
*Chairman, Department of Surgery*

I am pleased to announce that NYP/Columbia has once again been named the best in New York, and third in the nation for cardiology and cardiac surgery by U.S. News and World Report. The magazine's annual "America's Best Hospitals" survey has consistently ranked our cardiac program in the top 10 for seven years running. Performing over 2,200 open-heart procedures a year, the cardiac surgery section stands alone in the region and among the best in the world.

Our surgeons shape the future of medicine by leading groundbreaking research, offering innovative surgical techniques and providing patients and their families with the most comprehensive and

## Minimally Invasive Fix for a Complex Aneurysm



*Jerry Del Colliano*

Jerry Del Colliano, media executive, author, and disk jockey, is a member of the boomer generation who stays fit working out at his homes in Arizona and New Jersey. Earlier this year, he was diagnosed with an aortic aneurysm, an enlargement of the main artery that takes blood from the heart to the rest of the body. This condition usually causes no symptoms until it ruptures or tears and becomes life threatening.

Though Jerry had always been in remarkable health, his family history was worrisome. His father had a heart attack at 37, and later suffered from a ruptured abdominal aneurysm. In addition, his sister, uncle and several cousins also had aneurysms, some of them fatal.

During Jerry's annual cardio workup at a Phoenix hospital last March, a technician asked, "Has anyone ever told you have an enlarged aorta?" This was the first indication something was wrong. "My wife worried I'd lift something and then suddenly the aneurysm would tear," he said. "We knew I needed surgery fast. But we took the time to do our research, and came to the best place."

*Minimally Invasive Fix for a Complex Aneurysm ~ Continued on page 4*

## New Device for Patients with End-Stage Heart Failure



Yoshifumi Naka, MD, PhD

NYP/Columbia is one of the leading centers in the world for patients with end-stage heart disease, and one of the first to allow those with end-stage heart failure to benefit from Heartmate 3. This new left ventricle assist device (LVAD) takes over the pumping action of the heart, moving oxygen-rich blood throughout the body.

In a groundbreaking study reported in New England Journal of Medicine and presented at American Heart Association in November 2016, **Yoshifumi Naka, MD, PhD**, reported fewer complications with the Heartmate 3, calling it a marked improvement over its predecessor, Heartmate II. Dr. Naka is director of Columbia's Cardiac Transplantation Program and Mechanical Circulatory Support Program. Columbia enrolled the largest number of patients in this trial.

There have been three generations of LVADs since 1990 each advance resulting in better patient outcomes and quality of life.

- The first generation LVAD used a positive displacement pump to mimic the natural pulsing action of the heart.
- Second generation continuous flow LVADs, introduced in 2000, are smaller and more durable and use either a centrifugal or axial flow pump to circulate the blood. Yet patients often developed a condition called pump

thrombosis, increased clotting or coagulation of the blood in parts of the body that make contact with the device.

- The third generation LVAD has a fully magnetically levitated pump that has less impact on the body. According to Dr. Naka, Heartmate 3 eliminates the clotting problem and the surgery needed to correct it, greatly improving the patient's quality of life.



The Heartmate III system

### How does the Heartmate 3 work?

This device is implanted directly onto a patient's native heart and designed to supplement the pumping ability of the weakened left ventricle, moving up to 10 liters of blood per minute. It is placed above the diaphragm, immediately next to the native heart, and is attached to the aorta (the main artery). HeartMate 3 leaves the patient's natural circulation in place while providing all of the energy necessary to propel blood throughout the body. The patient wears an external control and a rechargeable power pack. ■

Learn more about mechanical circulatory support  
[www.columbiasurgery.org/lvad](http://www.columbiasurgery.org/lvad)  
To make an appointment, call 212.305.0828

## Save the Dates

Register online:

[www.columbiasurgery.org/events](http://www.columbiasurgery.org/events)

If you have not yet attended one of our department's community events, consider spending a few hours at one of our special programs. Designed to share information about the latest advances in medicine, these free events are a fantastic way to learn from our experts about diseases that affect so many of our loved ones and friends. Upcoming programs focus on breast cancer, colorectal cancer, and lung cancer.



**Friday, March 10, 2017 • 1:00am–3:00pm**  
The Riverview Terrace, 173 Fort Washington Ave, 1<sup>st</sup> Fl., NYC

### Round-table discussions will include:

- Screening for Colorectal Cancer
- Risk Factors: Family history, genetics, diet & exercise
- IBD—What is it? What causes it? and How do you treat it?
  - Nutrition and Lifestyle Prevention for Colon Cancer
- Ostomy and Wound Care: A conversation with our experts
  - Innovations in Surgical Techniques

## Fighting Peripheral Artery Disease One Step at a Time



Nicholas Morrissey, MD

After more than 30 years of smoking, Jean Martin of Manalapan, New Jersey, decided to trade her cigarettes for a pair of running shoes. At age 51, she worked up slowly from a brisk walk to jogging and started feeling pretty good. Then one day her calves began to cramp. When the pain became severe, Jean went to a local hospital and was diagnosed with peripheral artery disease (PAD), a condition that had affected her father. PAD is a narrowing of the arteries carrying blood to the limbs. Smokers are up to 25 times more likely to develop it. Jean had the right idea—quitting—she just didn't do it soon enough.

In 2011, Jean had major surgery in a New Jersey hospital, then sought a second opinion from renowned vascular surgeon **Dr. Nicholas Morrissey** at NYP/Columbia. "Jean came to us after having a bypass to correct a blockage in her iliac artery, the main artery in the pelvis," Dr. Morrissey said. "Unfortunately that repair didn't hold and she was in pain again. We put a stent in to open up the channel and restore blood flow to her legs. Then a very determined Jean started training for the New York City marathon."

A runner himself, Dr. Morrissey planned to enter the race in 2012, to offer Jean support and to raise money for the American Heart Association. But Hurricane Sandy struck, flooding much of lower Manhattan. The marathon was canceled and doctor and patient made a pact to try again



Agnes Martin

the following year. A few weeks before marathon in November 2013, Jean developed a clot behind her knee. The problem started in the middle of an 18-mile training session and by the time Jean got to the OR, her leg had been starved of blood for quite some time. Dr. Morrissey had to work hard to save the limb. For Jean, it looked like a long road to recovery—but there was no way she was giving up. In 2015, she began training again with the New York Roadrunners in Central Park. "We met at many of the same races," says Dr. Morrissey, "then in November 2016, we each crossed the finish line at the New York Marathon."

All Jean ever wanted was to complete this race. "Running gave her the sanctuary and peace of mind to get through all her health challenges," said Dr. Morrissey. "And this accomplishment was something to celebrate."

Now 56, Jean continues to be monitored with ultrasound and keeps Dr. Morrissey posted on her racing schedule. "It's unlikely that she will develop any new problems," he says. "The stent we placed in her pelvis is open, we fixed the clot behind her knee, and her injured artery has remodeled beautifully and gotten better. To watch Jean turn her life around has been inspiring." ■

*Learn more about our advanced treatments for Peripheral Artery Disease [www.columbiasurgery.org/vascular](http://www.columbiasurgery.org/vascular)  
To make an appointment, call 212.342.3255*



## Lung Cancer Awareness Day

**Saturday, May 6, 2017**

**10:30am–12:35pm**

Vivian and Seymour Milstein Family Heart Center  
Myrna L. Daniels Auditorium  
173 Fort Washington Avenue, NYC

### Lecture topics to include:

- Health and Fitness Empowerment
- The Promise of Immune Therapy
- Lung Health Maintenance • Personalized Treatment
- Who's at Risk for Blood Clots • Patient Story



## Cardiovascular Webinars

The NewYork-Presbyterian/Columbia Cardiovascular Institute launched a new program targeting issues around clinical advancements and challenges in cardiovascular disease management.

Columbia experts discuss the challenges, controversies, and successes of Cardiovascular disease management including ischemic and structural heart, heart failure, arterial disease, and vascular medical issues.

*You can view archived webcasts by visiting:*  
[columbiasurgery.org/education-training/cardiovascular-webinars](http://columbiasurgery.org/education-training/cardiovascular-webinars)

Two experts at leading hospitals had proposed traditional open surgery, requiring a 14-inch chest incision. Then Jerry consulted with the director of Columbia's Cardiovascular Institute, **Dr. Michael Borger**. "I want a mini-sternotomy," he insisted, having read up on minimally invasive approaches. "But I've been told that's too difficult. Are you willing to try this? And can you promise to leave me with a less than a four-inch scar?" Borger said yes, after carefully reviewing Jerry's recent tests and medical records.

In June, Jerry was taken into the OR. But the procedure turned out to be more challenging than anticipated. Jerry's heart was deviated and was far to the right of his chest, and his aorta was severely twisted. This required Dr. Borger to do the surgery from a completely different angle as well as from a much smaller access point.



Michael Borger, MD, PhD  
Surgical Director,  
Aortic Surgery Program

"Dr. Borger is not only a highly skilled surgeon," Jerry said, "but a man of high integrity. He could have decided that my anatomy was too complex and simply done the traditional open surgery. Instead he adapted the procedure so he could keep his promise to me."

Jerry credits Diane Amato, the Cardiovascular Institute's Division Administrator, with making sure that he received the very best care throughout his stay. "Diane was my guardian angel from the start," says Jerry, "She called me from her vacation to walk me through the steps of the surgery. She explained that Borger had exceptional outcomes with a minimally invasive approach. She talked to me for hours to ease my fears, then sat with my wife while I was in the OR. And my cardiologist, **Dr. David Engel** provided daily follow-up once I left the hospital."

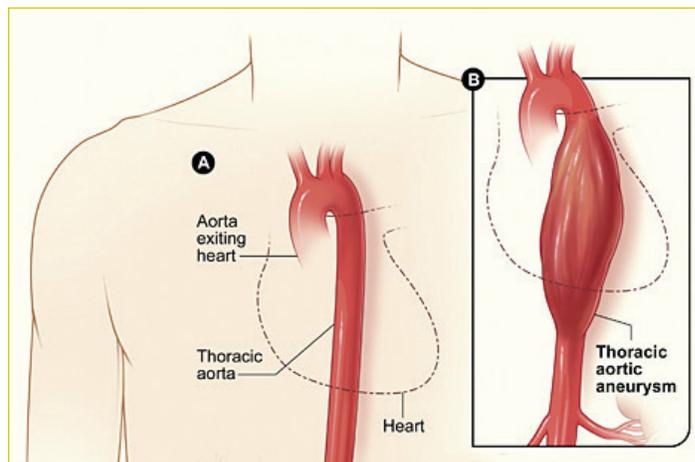


Figure A: normal aorta.

Figure B: thoracic aortic aneurysm (located behind the heart).

Six weeks after his surgery, Jerry was walking on the beach and a month after that, he was back to his usual jam-packed schedule, commuting to New York and meeting with media moguls and producers. "He looks much younger than his age, and his energy is remarkable. You'd think he was about to run the marathon," Dr. Borger said.

Jerry credits Borger's stamina as a surgeon, and his willingness to put the patient's wishes first, as the reason he's had such a good outcome and such a strong recovery. Recently, Jerry gave Dr. Borger a copy of his book, *Out of Bad Comes Good: The Advantages of Disadvantages*, with the inscription, "I owe you my life."

"Today I am not just recovered but rejuvenated," he said. "This year started out so difficult, as I came close to death. But I got a happy ending because I found a one-in-a-million surgeon and a terrific medical team." ■

Learn more about our Aortic Surgery program:  
[www.columbiasurgery.org/aortic](http://www.columbiasurgery.org/aortic)

To make an appointment call 212.305.4980

## Media Learning Center

Visit [columbiasurgery.org/media](http://columbiasurgery.org/media) to see interviews with our surgeons, animations of procedures, and more. New videos are posted weekly.

## Still can't find what you are looking for?

With over 5000 pages on our web site, we probably have it covered. Use the search bar located on the top of every page at: [www.columbiasurgery.org](http://www.columbiasurgery.org) or email us at [info@columbiasurgery.org](mailto:info@columbiasurgery.org)