

COMMITTED TO EXCELLENCE IN HEALTHCARE

# INOVA MAGAZINE



Students visit the Inova Heart and Vascular Institute to watch surgeons in action

 INOVA HEALTH SYSTEM



# WHAT'S UNDER

# THE DOME?

*Students peek into cardiac surgery and learn heart-healthy behaviors*

For most of us, the cardiac operating room of a hospital is a foreign world. The specialized technology, the highly developed skills and the intricate procedures all seem mysterious and strange. We think of heart surgery as a complex exercise performed only behind closed doors. As a result, we know very little about how a surgical team repairs a heart damaged by years of smoking, poor nutrition and lack of exercise.

That's not such a good thing, according to Inova cardiologists and cardiac surgeons, who think that "Out of sight, out of mind" is a poor mantra when it comes to heart health. So in 1992, Inova opened the Observation Dome, a special observation deck built above one of the operating rooms in Inova Fairfax Hospital. Program administrators at the acclaimed Inova Heart and Vascular Institute (IHVI) hope that if people have the opportunity to witness heart surgery first-hand, they'll develop a more powerful understanding of the connection between the lifestyle choices they make and their cardiovascular health.

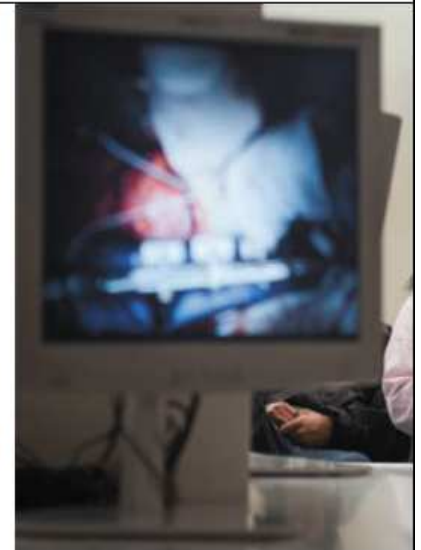
Nearly 4,000 middle- and high-school students visited the Dome last year. Over a period of four hours, each group of students witnesses

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PHOTO: JONAH AUEL



Dome docent Darla Ferris, RN, explains what's happening in the operating room below. The experience helps raise the students' awareness of the importance of adopting heart-healthy behaviors. The Dome program, pioneered by cardiac surgeon Edward Lefrak, MD, is the only program of its kind in the country targeted to middle- and high-school students.



open-heart surgery in the state-of-the-art facility. But they don't just observe the procedure — they also learn about cardiovascular disease and the ingredients of a heart-healthy lifestyle, leaving with a new awareness of how the choices they make now affect their long-term health.

### The Experience

The students start their experience with a tour led by Dome docent Darla Ferris,

RN. She begins at Cardiac Diagnostics, where EKG technicians monitor patients' heart rhythms, then guides them through IHVI's high-tech Cardiac Rehabilitation facilities before leading them to the Dome, where the patient has already been prepped for surgery.

Students learn details about the patient's medical history and current medical condition (all identifying information is removed to protect the patient's privacy, and patients consent to being observed). Brandishing a model heart, Ferris explains how the surgeon will bypass the patient's blocked artery by removing a vein from his or her leg and grafting it into place. She also shows the students some of the medical equipment they'll see in action and describes the members of the cardiac team and their roles in the surgery.

During the operation, Ferris provides much-needed context. "I narrate the surgery as it's happening," she says. She also encourages students to ask questions and uses props to illustrate and reinforce her points. A large jar of molasses is particularly arresting. "This represents the amount of tar and nicotine that goes into your lungs if you smoke half a pack a day for just one year." The room is filled with

expressions of disbelief and disgust. "Yep — gross but true," Ferris says with a smile.

### The Impact

These reactions, and the level of engagement they reveal, are a measure of the Dome program's success. Cardiac surgeon Edward Lefrak, MD, pioneered the Dome program at IHVI because he believes in the importance of education. "The Dome program is first and foremost a vehicle to increase middle- and high-school students' awareness of heart health and ways they can reduce their risk," he says. "The program also helps students learn about a variety of healthcare careers — not just doctors but also the nurses, technicians and therapists that make up the cardiac-care team."

Program administrators hope that the students will think more about how their behaviors affect their bodies. "Part of the mission of IHVI — what we really want to do — is prevent heart disease, not just treat it," Dr. Lefrak explains. "The Dome program is another way that Inova reaches out to the community to educate young and old alike about how it's in their power to improve their health and avoid problems."








PHOTOS: ADAM RUEL

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**EDWARD LEFRAK, MD**

**A One-of-a-Kind Program**

It’s an education that few students get. Though other hospitals allow medical students to observe surgeries, and some have programs for pre-med college students, Inova’s Dome program is the only one in the country that targets middle- and high-school students.

Getting students at this younger age is key, according to clinical educator Patricia Seifert. “Our research is demonstrating that the Dome program makes a difference in the lives of students, by providing them with information that they wouldn’t otherwise have access to. It gives them insight into a foreign world — the operating room, and the human body! — while showing them a world of possibilities,” she says. 



## WHAT IS THE INOVA HEART AND VASCULAR INSTITUTE?

Many people think of the Inova Heart and Vascular Institute (IHVI) as a state-of-the-art facility on the Inova Fairfax Hospital campus. But IHVI is not a building.

*IHVI is people.*

It’s a network of world-class providers — doctors, nurses and staff — throughout Inova Health System who are dedicated to providing the best in focused cardiac

care. Inova has the most experienced cardiac surgery team in the region, as well as Virginia’s number-one cardiology team, according to independent health-ratings organization HealthGrades, Inc. All this leads to patient satisfaction scores that are among the highest in the nation when compared to peer hospitals.

*IHVI is expertise and experience.* Inova specialists focus on the full range of cardiac care, including extensive rehabilitation facilities and outpatient clinics. Its cardiac surgeons performed the first heart transplant in the DC Metro area, and run one of the largest and most well-respected surgical atrial-fibrillation programs in the nation. IHVI is also a hub of research committed to advancing prevention, diagnosis and treatment of cardiovascular disease. And because it’s important to prevent heart disease rather than simply treat it,

IHVI offers a range of education and prevention programs.

*IHVI is convenience.* No matter where in Inova Health System a patient first goes for care, he or she has access to a full range of services. IHVI cardiologists have offices throughout the DC Metro area, and for emergency cardiac care, patients can count on quick access to world-class care, no matter which Inova facility they enter. And because it’s integrated with Inova Fairfax Hospital for Children, Northern Virginia’s only pediatric tertiary-care center, IHVI is also the only cardiac program in the area to treat both adults and children in one seamless network.

Of course, IHVI has the tools, technologies, facilities and capacity of a world-class facility — in addition to being repeatedly recognized by HealthGrades for its cardiac care, it’s consistently ranked among the nation’s best for cardiac care by *U.S. News and World Report*. But it’s the integrated system — the people, expertise and convenience, all working together to treat and prevent heart disease — that truly makes IHVI unique.

**INOVA PLUS+**

For more information please email [dome.experience@inova.org](mailto:dome.experience@inova.org)