

HEALTHY PLANET, HEALTHY PEOPLE

GOING GREEN IS MORE THAN AN Rx FOR THE EARTH. CLEVELAND CLINIC'S ENVIRONMENTAL FOCUS BOOSTS HUMAN HEALTH AND FISCAL FITNESS.



BY ELIZABETH LEAR

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As evening shadows fall at Cleveland Clinic, motion-sensor lights blink out one by one behind a patient driving out of a garage. Inside, an operating room powers down after a surgical team finishes the day's heart procedures. Employees at the end of their work day pack up the fresh produce they bought at the on-site farmers' market, while housekeeping teams pass by, collecting rainbow-hued waste containers for recycling.



All represent small yet powerful steps toward a greener way of caring for the community.

“We see that the health of our patients and the health of the community are tied to the health of our environment, the air we breathe and the quality of our lives as caregivers,” says Jon Utech, Senior Director of Cleveland Clinic’s Office for a Healthy Environment.

From architecture and light bulbs to operating room protocol, Cleveland Clinic and caregivers across the system are going green. All of this saves energy and money, of course. But the even bigger payoff is the improved health of the people Cleveland Clinic serves.

Build Eco

With a green roof that minimizes storm water run-off, low-flow lavatory faucets and carpets that emit fewer harmful chemicals, Cleveland Clinic’s Tomsich Pathology Laboratories building is the epitome of preplanned efficiency and environmentally friendly healthcare. Inside, caregivers handle ultra-efficient automated cataloging and processing of clinical tissue samples from across Cleveland Clinic and from hospitals around the world.

“I’m very honored that I was able to provide the means to be recognized with the pathology building, because a cataloging technical center is really the

foundation and backbone of patient care,” says Robert J. Tomsich, lead supporter of the Robert J. Tomsich Pathology & Laboratory Medicine Institute. “Then, they designed the building as all buildings should be done in this era of construction — with a concentration on environmental aspects, for both reducing cost for operations as well as fitting into the future requirements of this country, this world, to eliminate waste of energy and harmful emissions.”

The Tomsich Pathology Laboratories building is one of several recent projects, including the Twinsburg Family Health & Surgery Center and the Global Cardiovascular Innovation Center, that have earned LEED certifications for energy efficiency and water conservation. In fact, out of the 1,300 hospitals in Practice Greenhealth group, Cleveland Clinic is among the top 10 hospital systems in the United States for green building performance. Practice Greenhealth members are healthcare organizations committed to sustainable, environmentally preferable practices.

Cleveland Clinic made the top 10 for several reasons. For one, it often builds on brownfield sites to preserve green field space and enhance access to nature. It also recycles 95 percent of the tear-down materials from older buildings, including concrete.

Beyond energy efficiency, the buildings promote good health. Windows with beautiful views, ready access to natural settings, fitness opportunities and healthy foods are included in new standards

Building Healthy Care

Cleveland Clinic has one of the highest counts of environmentally friendly LEED buildings in the United States for any hospital system:

4 Gold
9 Silver

defining healthy environments.

“We try, from a construction standpoint, to use research-based findings to influence the way we build,” Mr. Utech says. “It’s proven that views of nature, of beautiful things, have a beneficial impact on the occupants of that building, whether they are patients or caregivers.”

Green Up

The new Well Building Standards that Cleveland Clinic helped draft and present for healthcare facilities in 2014 expand on the idea that hospital settings can help foster both healthy living and green lifestyle practices.

Healthy food and fitness equipment are easily accessible to employees and patients alike. And beautiful spaces for reflection are abundant. Cleveland Clinic goes beyond its own campus, too, offering parking price discounts to employees who drive hybrid and fuel-efficient vehicles.

In the last decade, Cleveland Clinic has made clean air a priority, starting with smoking bans on all campuses. Other steps include using cleaning products that are as effective as traditional cleaners but safe enough to drink. Michael Roizen, MD, Chief Wellness Officer of Cleveland Clinic, notes

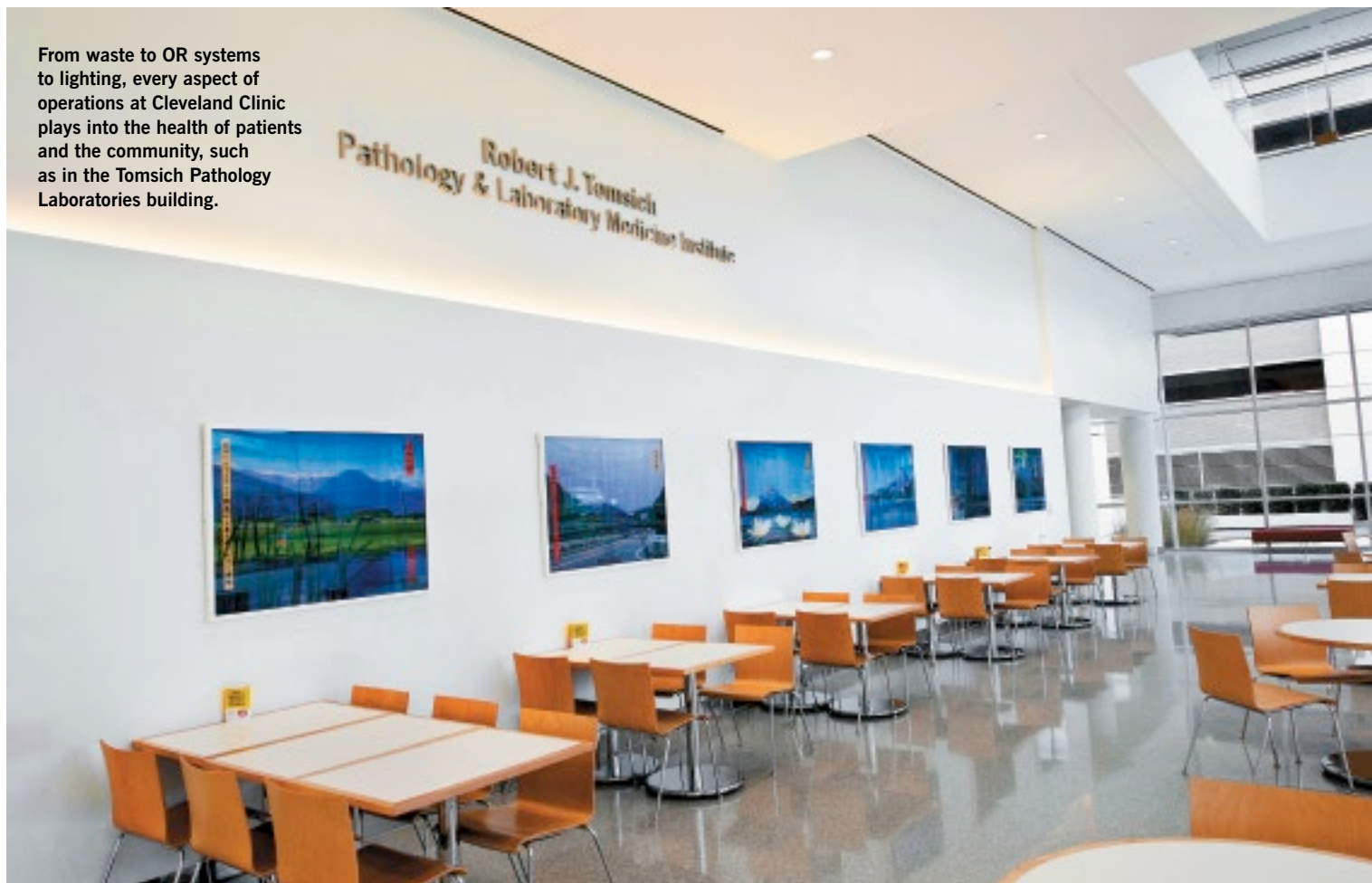
that even seemingly innocuous formaldehyde fumes from new furniture can contribute to inflammation in the body, which may be tied to bowel dysfunction or worsen chronic lung conditions.

The cumulative benefits of Cleveland Clinic’s efforts also affect economic health of local communities, Mr. Utech says. On-site farmers’ markets are open to neighborhood shoppers. And since Cleveland Clinic is a major employer, its 43,000 employees can take advantage of its fitness and green transportation incentives.

Businesses have cropped up around these efforts. For example, Green City Growers, an Evergreen Cooperative, which supplies urban farm produce to hospitals, creates businesses and jobs by partnering with the city of Cleveland, the Cleveland Foundation, Cleveland Clinic and other community hospitals.

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From waste to OR systems to lighting, every aspect of operations at Cleveland Clinic plays into the health of patients and the community, such as in the Tomsich Pathology Laboratories building.





Little Changes Add Up Big

Cleveland Clinic recycles ► **30 percent** of its waste

◀ Parking Garage LED Retrofit Project Savings: **\$260,000/year**



BRACING FOR CLIMATE CHANGE

When President Barack Obama announced carbon emission regulations for fossil-fuel based power plants to help curb global warming, Sumita Khatri, MD, Co-director of the Cleveland Clinic Asthma Center, was right behind him — both on stage during his announcement and in her advocacy efforts through the American Lung Association.

“From a lung and allergy standpoint, it is very obvious that changes in weather and the environment have a large impact,” says Dr. Khatri, a lung specialist. “In large-scale epidemiological studies and on the front lines taking care of people with asthma, we see it all the time.”

Approximately one in 10 children in the United States suffers from asthma, including 200,000 in Ohio. Experts know that poor air quality, even over a short time, has deleterious health effects. In addition to asthma, increases in heart attack, stroke and cancer also are associated with poor air quality, as well as other extreme weather events, increased moisture, or decreased water and food supplies that can be caused by global climate change.

Cleveland Clinic is partnering with the U.S. Department of Health and Human Services and National Institutes of Health in developing new building design and operations standards to help safeguard hospital operations nationwide during extreme weather events. The need crystallized when hospitals across New York and New Jersey were taken offline by Superstorm Sandy.

“We are thinking about our infrastructure, to be ready in climate change not only to deliver, but also to not make climate change worse. As healthcare professionals and healthcare organizations, we must all consider how we are affecting the environment and do so in as positive a way as possible for the health of our fellow citizens,” says Dr. Khatri. “In other words, be responsible.”

Cleveland Clinic also is a driving force in Cleveland Mayor Frank Jackson’s Sustainable Cleveland 2019 initiative, which incorporates sustainability and economic development programs to transform Cleveland into a “Green City on a Blue Lake.” These efforts have set Cleveland Clinic apart and made it a Practice Greenhealth Top 25 Environmental Excellence Award recipient at the national CleanMed Conference in 2015.

Reduce and Reuse

When Ilyssa Gordon, MD, PhD, of Anatomic Pathology, was in medical school, she made time to talk with elementary school students about how their health relates to the environment. Today, she embraces the human-environment health link as a pathologist at Cleveland Clinic, with specialized training in both the lung and gastrointestinal systems, which are directly affected by exposure to environmental elements.

“I think it is important that doctors understand the strong link between how we treat the environment and how it affects our health,” Dr. Gordon says. “Not just the healthcare sector as a whole, but also what every patient does every day.”

When she joined Cleveland Clinic, she immediately spotted a recycling opportunity with clinical lab benches that are lined with red biohazard bags, as well as ordinary trash cans. She polled all employees about their workflow and any barriers they had to participation. She determined that a purple-bag recycling program recently implemented in the operating rooms also could recycle medical-grade laboratory plastics and materials that were being sent to landfills or processed as bioregulated waste.

Disposal of biohazardous materials and radioactive chemicals is complex for healthcare organizations. With 25,000 tons of 40 different streams of materials to be recycled or disposed at Cleveland Clinic, creative approaches to recycling can have a significant environmental and community impact. The Cleveland-area Buckeye Industries, for instance, employs 51 adults with disabilities who sort medical-grade plastics from the purple-bag recycling program.

With all of these efforts, Cleveland Clinic now recycles 30

